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Final Modification Report

CMP448: Introducing a Progression Commitment Fee to the Gate 2 Connections Queue

Overview: This proposal establishes a framework to introduce an additional financial requirement on developers, that can be activated if required. It aims to incentivise the timely removal of any projects that have become unviable from the connections queue, facilitating more timely and efficient connection of viable projects. In doing so, it will support progress towards Clean Power 2030 (CP30) Action Plan and net zero targets.

Modification process & timetable

1	Proposal Form 06 February 2025
2	Workgroup Consultation 24 March 2025 – 07 April 2025
3	Workgroup Report 03 June 2025
4	Code Administrator Consultation 10 June 2025 – 24 June 2025
5	Draft Final Modification Report 30 June 2025
6	Final Modification Report 04 July 2025
7	Implementation Q4 2025

Have 5 minutes? Read our [Executive summary](#)

Have 120 minutes? Read the full [Final Modification Report](#)

Have 210 minutes? Read the full Final Modification Report and Annexes

Status summary: This report has been submitted to the Authority for them to decide whether this change should happen.

Panel recommendation: The Panel recommended by majority that the Original and WACMI better facilitated the Applicable CUSC Objectives.

This modification is expected to have a: **High impact** on Developers, Generators, Transmission System Operators, Distribution Network Operators, Interconnectors and Consumers

Governance route	Urgent modification to proceed under a timetable agreed by the Authority (with an Authority decision)	
Who can I talk to about the change?	Proposer: Ash Adams Ashley.Adams2@neso.energy	Code Administrator Chair: Joe Henry Joseph.Henry2@neso.energy

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Executive Summary

What is the issue?

Many projects are currently waiting too long to connect to the transmission network, and this is hindering progress towards Clean Power by 2030 Action Plan (CP30) and ultimately net zero. The Connections Reform Programme comprises a suite of reforms that are expected to enable the more timely and efficient connection of projects to the grid, to better facilitate the delivery of decarbonisation plans and reduce costs across the value chain to the ultimate benefit of end consumers.

The frameworks already targeted, may not sufficiently incentivise developers of projects which have become unviable to exit the connections queue in a timely manner. This proposal will, if approved by the Authority, establish a framework to introduce an additional¹ financial requirement on generation and interconnector developers² if needed, and a mechanism for its potential activation to provide such an incentive. The modification would thus (in the Proposer's view) enable the more timely and efficient connection of viable generation and interconnector projects to facilitate vital CP30 and net zero plans and allow for more effective planning of transmission investments.

What is the solution and when will it come into effect?

Proposer's solution:

If approved, the proposal would introduce a Progression Commitment Fee (PCF³) which, if activated, would place a financial incentive on developers to exit the connections queue in a timely manner should the developer lose confidence that its generation or interconnector project will ultimately connect.

This proposal builds on earlier work and takes account of responses to a NESO initiated Call for Input (CFI) late last year on an earlier version of a financial instrument. The PCF introduced through the solution for this [CMP448](#) modification will remain dormant providing the issue of project non-progression in the connections queue, between acceptance of a project Gate 2 Offer and that project's progression to its Milestone 1 (which is based on the submission of planning consents), is not prevalent. This will be

¹ To those set out in the CUSC, such as 'User Commitment' in Section 15.

² The change is intended to be limited to generation and interconnector projects. Distribution Connected Demand connections activated by Distribution Network Operators ("DNOs") and Directly Connected Demand are therefore out of scope of this modification.

³ Also referred to in this document as 'fee'.

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indicated by a defined “Activation Metric” and “Activation Threshold”. If the Activation Metric exceeds the defined Activation Threshold, then the PCF may be activated. If the Activation Metric remains below the Activation Threshold, then the PCF will not be activated.

If it is activated, the PCF will increase over time, with having an initial value of £2,500/MW. For projects already in scope (please see scope section below) at the time of activation, the PCF will then increase at a rate of £2,500/MW at 6 monthly intervals (in line with the processes for the posting of existing Cancellation Charges securities) up to a maximum cap of £10,000/MW. For new projects entering the Gate 2 queue post PCF activation, the PCF will be £2,500/MW from the date of entry which would then increase to £5,000/MW for the following securities period (which may be between 1 day and six months from the date of entry) and would from that point onwards increase at a rate of £2,500/MW every six months up to a maximum cap of £10,000/MW.

A User will be required to post a security for the total value of the applicable PCF £/MW for their project (as is required, currently, for other cancellation and termination charges – *Note: this potential PCF liability, and its securitisation, is additional to those other charges*).

If activated, the PCF will apply to those projects with either Transmission Entry Capacity (TEC), or Developer Capacity (DC) or Interconnector Capacity (IC) while they are between the acceptance⁴ of the project’s Gate 2 Offer and that project’s User Progression Milestone 1: Initiated Statutory Consents and Planning Permission⁵. If a project, then terminates or is terminated prior to successfully demonstrating achievement of Milestone 1 they will be required to pay the applicable PCF. If a project passes Milestone 1, then that project’s liability to pay the PCF or securitise against it, falls away.

The PCF for projects where the M1 date is less than six months from the latter of either (i) the PCF activation date or (ii) the date of Gate 2 Offer counter-signature by NESO, will be £0.

⁴ For the avoidance of doubt, references in this consultation document to ‘acceptance of the Gate 2 Offer’ / ‘Gate 2 Offer acceptance’ means firstly that the project has formally accepted the Gate 2 Offer they receive from NESO or the relevant DNO / transmission connected iDNO and, secondly, that this (developer signed) acceptance has been counter-signed by NESO.

⁵ Or the equivalent DNO milestone for embedded

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Implementation date:

This CMP448 proposal was designated as Urgent by the Authority and as such proceeded upon the Urgent timeline issued by the Authority. It is proposed to be implemented prior to Users that will be in scope of the PCF having to sign (to accept) their project Gate 2 Offer. Gate 2 Offers for projects that are pre-planning are currently expected to be issued by the end of calendar year 2025 and, therefore, implementation of CMP448 (if approved) is currently scheduled for Q4 2025.

Summary of Alternative solutions and implementation dates:

A total of 2 Workgroup Alternative CUSC Modifications (WACMs) were developed within the Workgroup Process. These can be viewed in **Annex 10**. These are:

WACM1 – Reduction of the PCF Value by a factor of 10

This alternative solution reduces the magnitude of the Progression Commitment Fee (PCF) by a factor of 10 and introduces an initial period of up to six months where the PCF is £0/MW. After this initial grace period, a project's PCF will increase at a rate of £250/MW (rather than £2,500/MW) up to a maximum cap of £1,000/MW (rather than £10,000/MW). The alternative would not change the "Activation metric" or "Activation threshold" set out in the Original solution.

WACM2 – Self Termination Discount

This alternative solution would introduce a discount of 75% if a User self-terminates, as opposed to being terminated by NESO or the Distribution Network Operator (DNO) upon failing to meet Milestone 1. In order to receive the discount, the User must notify NESO or the relevant DNO of the intent to self-terminate at least 90 days prior to the Milestone 1 date.

A total of 9 potential alternative solutions were raised, however, the Workgroup believed 7 alternatives did not better facilitate the Applicable CUSC Objectives. The Workgroup Chair did not save the 7 potential alternatives.

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What is the impact if this change is made?

Workgroup conclusions:

The Workgroup could not reach a consensus on which option was best. There were minority preferences for the Original solution and the Baseline CUSC. 8 Workgroup Members thought the Original solution better facilitated the Applicable Objectives better than the Baseline. 8 Workgroup Members believed that the Baseline better facilitated the Applicable Objectives.

Code Administrator Consultation: The Code Administrator Consultation received 26 non-confidential responses and 2 confidential responses, including 2 late responses.

Panel recommendation: The Panel recommended by majority that the Original and WACMI better facilitated the Applicable CUSC Objectives.

Interactions

CMP448 proposal was dependent on the approval and implementation of CMP434 and CMP435. These were approved on 15 April 2025 and implemented on the 10 June 2025.

It was also identified that a DCUSA modification regarding Independent System Operator and Planner (ISOP) Provision 5.74 would be required in the event that CMP448 is positively determined. This will protect embedded projects and ensure there is no scope for different treatment.

What is the issue?

This Section details the issue as identified by the Proposer.

There is a clear and urgent need to reform Great Britain's electricity connection process. Many projects are currently waiting too long to connect to the transmission network, and this is hindering progress towards CP30 and ultimately net zero. This proposal is in line with the Connections Action Plan (CAP)⁶ initiatives that Ofgem and Department for Energy Security and Net Zero (DESNZ) are proposing to speed up connection queue timescales and forms part of a wider suite of connections reforms that aim to:

- i) enable the more timely and efficient connection of projects to the grid;
- ii) better facilitate the delivery of decarbonisation plans; and
- iii) reduce costs across the value chain to the ultimate benefit of end consumers.

CMP434 and CMP435, approved by the Authority in April 2025, will introduce the concept of a Gate 2 connections queue. Upon implementation of these modifications in June 2025, when a project enters the Gate 2 queue⁷ it will be provided with connection capacity. Connection capacity is a scarce resource and may require significant network investment. Some projects offered a place in the Gate 2 queue, that have met the 'readiness criteria'⁸ may become less viable over time due to a range of factors. These could include changing cost assumptions, changing risk appetites, changing market arrangements or financing issues.

Currently, User Commitment⁹ is required from customers under Section 15 of the Connection and Use of System Code (CUSC)¹⁰ to demonstrate that a developer is committed to developing its scheme. It does this by obliging a developer to secure a cancellation charge and pay it in certain cases.¹¹ This in turn helps protect other Users from costs associated with the cancellation of projects in the connections queue.

NESO is concerned that, given the increased priority and challenges in delivering this connections queue, the existing framework does not (nor was designed to) provide a sufficient financial incentive for developers to reflect on the viability of their projects in a

⁶ Connections Action Plan – <https://assets.publishing.service.gov.uk/media/6581730523b70a000d234bb0/connections-action-plan-desnz-ofgem.pdf>

⁷ The point at which a User has signed its Gate 2 offer, and this has been countersigned by NESO.

⁸ See Gate 2 Criteria Methodology – <https://www.neso.energy/document/346656/download>

⁹ Introduced in 2013 via CUSC change Proposal CMP192, the User Commitment framework has not been altered since it entered into force.

¹⁰ CUSC Section 15: User Commitment Methodology – <https://www.neso.energy/document/91416/download>

¹¹ For example, in the event of cancellation, delay, or reduction in capacity.

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regular and timely manner. Further, developers may not be sufficiently incentivised to either exit the connections queue or sell their project to a more committed developer in a timely manner if they do not intend to progress the project themselves.

Through the Queue Management process, projects will be terminated if they do not progress quickly enough and fail to meet milestones. However, Queue Management serves as a backstop to remove projects that cannot successfully demonstrate that they have met User Progression Milestones within the allotted timeframe. They do not encourage developers to proactively assess the viability of their projects on a regular basis and proactively leave the queue if necessary.

The period between Gate 2 entry and User Progression Milestone 1: Initiated Statutory Consents and Planning Permission (Milestone 1)¹² can be up to 5 years. During this period, projects are less likely to be exposed to significant User Commitment sums. Consequently, this is the stage where a project can occupy the queue for the longest duration, while also facing the least incentive for proactive and timely withdrawal.

At the time of CMP448 being raised, there were several in-flight connections reform modifications to the CUSC. These included:

- CMP434 – “Implementing Connections Reform” – seeks to introduce new processes and definitions to enable projects to progress more rapidly to connection including the introduction of Gate 1 and Gate 2 and amendments to Queue Management Milestones.
- CMP435 – “Application of Gate 2 Criteria to existing contracted background” – seeks to apply Gate 2 criteria to all existing contracted parties before they are provided with confirmed connection dates and locations.
- CMP446 – “Increasing the lower threshold in England and Wales for Evaluation of Transmission Impact Assessment” – seeks to raise the lower Transmission impact threshold from 1MW to 5MW in England and Wales.

These reforms have now been approved by the Authority and will have a positive impact on the efficiency of the connections queue. However, the lack of a more focused financial incentive to regularly review project viability, particularly in the period between meeting Gate 2 and User Progression Milestone 1, remains a potential gap. This could

¹² Detailed in NESO Queue Management Guidance for Transmission connecting <https://www.neso.energy/document/294211/download> and ENA Queue Management User Guide for Distribution connecting [https://www.energynetworks.org/assets/images/Resource%20library/ON21-WS2-P2%20Updated%20Queue%20Management%20User%20Guide%20\(30%20Jul%202021\).pdf?1747808848](https://www.energynetworks.org/assets/images/Resource%20library/ON21-WS2-P2%20Updated%20Queue%20Management%20User%20Guide%20(30%20Jul%202021).pdf?1747808848)

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cause detrimental impacts to developers of other projects with connection dates further in the future and therefore progress towards CP30 and other decarbonisation plans.

Scope

For the reasons outlined above, NESO views the period between Gate 2 offer acceptance and Milestone 1 as the period that carries the highest risk of projects failing to progress appropriately and persisting in the queue for longer than necessary. The defect that this modification seeks to address is limited to that period of time. The proposal has therefore been designed to apply only to projects in this phase of development.

The defect that we have identified does not relate to how the existing User Commitment framework, or User Progression Milestones work. These serve different purposes to the intent of this modification, respectively to cover Transmission Owner (TO) liabilities and provide backstop termination milestones. This modification is not intended to amend these arrangements. Instead, the focus of this modification is to introduce additional arrangements that complement the existing arrangements.

Currently, we believe that this defect is limited to generation projects. Distribution Connected Demand connections activated by DNOs and Directly Connected Demand are therefore out of scope of this modification. These parties secure on the basis of the Final Sums methodology. The Final Sums methodology stipulates that the customer party would secure all spend associated with their project as it progresses. We are therefore of the view that the security requirements of the Final Sums methodology currently provide a material financial commitment to development and sufficient assurance of commitment when allocating connection capacity.

However, we are aware that CUSC modification CMP417: “Extending principles of CUSC Section 15 to all Users” seeks to extend the principles of CUSC Section 15 “User Commitment Methodology” to Users on Final Sums methodology, resulting in all Users being on the User Commitment Methodology. Depending on the outcome of this modification, we may raise a further and separate modification in the future to consider broadening the application of the PCF (if approved) in order to ensure appropriate financial incentives for all Users between Gate 2 entry and User Progression Milestone 1.

For the avoidance of doubt, the proposal will apply to Small Medium and Large (as defined in the Grid Code) distribution connected generation who are themselves party to agreements under CUSC¹³ or are otherwise captured through the CUSC process which

¹³ BEGA and BELLA

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evaluates the impact of such connections on the National Electricity Transmission System (NETS) and the agreements with the distribution network operators. The CUSC evaluation process only applies to certain sizes of distribution connected generation and in line with this and the current levels, this means that this proposal will apply to distribution connected Generators in England and Wales with an export capacity greater than 5MW or in mainland Scotland greater than 200kW (or greater than 50KW if connecting in the Northern Scottish Islands).¹⁴

Why change?

The current connections queue is oversubscribed, with customers seeking network connections experiencing significant lead times as a result. The queue stands at 592 Gigawatts (GW) at 28 January 2025¹⁵ across transmission only, or approximately 770GW including distributed Generators, much more than the likely amount of electricity generation that GB is predicted to need by 2050.¹⁶ At present, it's also unclear how many of those queued projects will ultimately connect and in the context of a number of recent Government policy announcements,¹⁷ reform is vital to facilitate Clean Power 2030 Action Plan and subsequently meet net zero as planned.

NESO has taken action to reform the grid connections processes. CMP376: "Inclusion of Queue Management process within the CUSC"¹⁸ introduced a right for NESO to terminate contracted projects that are not progressing against agreed milestones. This represented a step away from the first-come first-served system. CMP427 "Update to the Transmission Connection Application Process for Onshore Applicants"¹⁹ introduced an additional Letter of Authority requirement to reduce the number of speculative connection applications. More recently, CMP434, CMP435 and CMP446 were approved by the Authority, and these modifications aim to further reform and improve the connections process.

¹⁴ CMP446 is in flight and the TIA threshold may change subject to the outcome of the modification. The Proposal will apply to all distribution connected generation that go through the TIA process regardless of the outcome of CMP446.

¹⁵ The transmission queue can be found on our website, <https://www.neso.energy/industry-information/connections/reports-and-registers> while the distribution queue can be found on each DNOs website

¹⁶ See Page 10 of Future Energy Scenarios: Pathways at a Glance for estimates of Total installed capacity (<https://www.neso.energy/document/321046/download>)

¹⁷ 1) a new Mission Control tasked with accelerating the UK to clean power by 2030; 2) the introduction of Great British Energy, a new publicly owned company which will own, manage and operate clean power projects; and 3) a lift on the ban for onshore wind projects in England.

¹⁸ CMP376: "Inclusion of Queue Management process within the CUSC" entered into force in November 2023.

¹⁹ CMP427: "Update to the Transmission Connection Application Process for Onshore Applicants"

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Through Queue Management, unviable projects will eventually be terminated if they fail to meet queue milestones, but even where projects stay in the queue for a short time, they are holding capacity that could be allocated to a more viable project.

Without an additional incentive on developers to either: i) sell their projects on to a more committed developer; or ii) terminate the connection agreement and exit the connection queue in a timely manner when they no longer intend to progress their projects, there is the potential for unviable projects to block the queue for longer than necessary and risk connection delays to other ready and committed projects that have been given later connection dates as a result. Without further changes, we believe that

this behaviour has the potential to become a problem that will not be addressed appropriately even after the wider suite of connections reforms proposed so far are implemented. By acting now, we can ensure that we are able to act at pace to address this issue should it materialise once the prior mentioned reforms are in place.

Impact

NESO believes that should the Progression Commitment Fee outlined within this proposal be activated, the additional fee, payable on termination between Gate 2 entry and Milestone 1, will ensure that during the period of highest risk of unviable projects remaining in the connections queue:

- There is an incentive for developers of projects that have become unviable to self-select out of the queue in a timely manner.
- There is an incentive for developers who are no longer committed to progressing viable projects to sell them to a committed developer, in a timely manner.

By providing such incentives there will be a positive impact on committed project developers, consumers, and wider investors in the GB energy system by limiting connection delays, wasted resources and inefficient allocation of scarce network capacity. With this in mind, NESO considers that this proposal is required to enable efficient and economical progress towards GB's decarbonisation goals.

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Workgroup considerations

The Workgroup convened 14 times to discuss the identified issue within the scope of the defect, develop potential solutions, and evaluate the proposal in relation to the Applicable Code Objectives.

The Workgroup held their Workgroup Consultation between 24 March 2025 – 07 April 2025 and received 35 responses. The full responses and a summary of the responses can be found at **Annex 06**.

The Workgroup does not believe that there are any Electricity Balancing Regulation (EBR) interactions from CMP448.

Consideration of the Proposer's solution

NESO presented the proposal to the Workgroup and discussions were held on several aspects of the proposal.

PCF Design

The Workgroup noted that in November 2024, NESO held a "Call for Input" on the Progression Commitment Fee (PCF or "fee", which at that point was known as the 'Financial Instrument') that NESO had outlined to stakeholders earlier in the year at the TCMF.

The Workgroup also noted that the consultation received a broad range of feedback from industry. NESO highlighted that that feedback was used to help shape the design of the PCF in the CMP448 Original proposal. Key elements of the feedback (from the November Call for Input) were taken into account when putting the CMP448 proposal forward, including:

- the reconsideration of the flat fee structure, as this may create a perverse incentive for unviable projects to stay within the connections queue;
- the reconsideration of the duration of the fee application, to limit the period to which the PCF applies to the period where project progression is within the control of the developer (i.e. planning being granted is outside the control of developers to a certain extent);
- the reconsideration of the £20,000/MW fee, as feedback suggested that such a level might impact project viability and profitability;
- amendments to fee activation, as respondents suggested that existing in-flight reforms may address issues with the connections queue, and NESO amended the

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design so that the PCF remains dormant and can only be activated if there is evidence that it is required.

This feedback was reflected by NESO through the amendments made to the initial version of the Financial Instrument outlined to stakeholders earlier in 2024. The Proposer summarised the key changes made whilst presenting the CMP448 proposal to Workgroup Members.

i) **Duration of the Fee**

The Proposer of this modification explained to the Workgroup that the fee would be from the project Gate 2 Offer acceptance to the project Milestone 1 (M1) (which is 'Initiated Statutory Consents and Planning Permission') or "M1", or the equivalent milestone in a Distribution Connection Agreement. In the prior version of the proposal, NESO proposed that it should apply from Gate 2 to Milestone 7 (Project Commitment) (M7). The rationale behind that was:

- The period between Gate 2 Offer acceptance to Milestone 1 is the longest duration during which unviable projects can persist in the connections queue without progressing. Applying a fee during this period serves as an incentive for these projects to leave the connections queue proactively.
- After Milestone 2, queue progression milestones are more frequent, and the Proposer believes that a 6 monthly incentive to assess viability would provide a marginal benefit after Milestone 2.
- The Proposer doesn't believe that it would be appropriate to apply an incentive to assess project viability while a project is awaiting a decision on its planning application (a key outcome that determines viability) because progression at that stage is largely out of the developer's control.
- Prior to Milestone 1, it is the Proposer's view that a developer has greater control over their project progression. Submitting a planning application is an action that is within their control (NB – this view was not reciprocated by some Workgroup Members).

The Proposer also clarified that NESO understands that after Milestone 2, a project is likely to be liable to an increasing cancellation charge under the existing CUSC User Commitment Framework.

Some Workgroup Members questioned whether this period (from Gate 2 Offer acceptance to M1) was too short and asked whether this could be expanded under the agreed scope of the modification. The Proposer highlighted that the scope of this

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CMP448 modification was purposefully selected to provide the most appropriate incentive for projects to leave the connections queue in an appropriate manner. The Chair confirmed that in their view any such alternative would be out of scope of this modification.

The Workgroup consultation asked a specific question on the duration of the proposed fee. A majority (54%) of respondents indicated that they supported the duration of the fee that had been proposed in the Original. However, around 40% of respondents indicated that the duration of the fee should be reconsidered by the Proposer. Some respondents indicated that they believed that the duration of the fee was too long, and that this would lead to a disproportionate impact on projects with longer lead times. Conversely, there was also feedback from the consultation which suggested that the length of the fee was too short – as it gave insufficient incentive over a full project cycle. Furthermore, a minority of respondents indicated that the duration of the fee could have negative impacts on smaller generators and could be impractical for Embedded Generators.

Following the majority positive feedback, and considering feedback of a constructive nature, the Proposer decided to keep the initially proposed duration of the fee as part of their Original solution.

ii) **Profile and timing of the fee**

Initially, NESO had considered, with its Financial Instrument approach, a flat fee of £20,000/MW. However, feedback from the CFI suggested that this flat fee was i) potentially punitive to smaller developers and ii) may perversely incentivise projects to remain in the connection queue despite their project being unviable.

Accordingly, the Proposer amended this within the Original solution for this modification to be a profiled fee which progressively increases on a 6 monthly basis, by a set increment.

The Proposer explained that their rationale behind this was that:

- feedback suggested that a progressively increasing fee would better incentivise projects to regularly assess their viability, and if necessary, leave the connections queue at the earliest opportunity.
- to provide an additional benefit over the queue milestones, the fee should increase at a greater frequency than a project reaches M1. Note: One Workgroup Member highlighted that this doesn't necessarily apply to the case of embedded

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generation where there can be as little as a 2-month period (if no Environmental Impact Assessment is required) from the customer accepting their offer and having to Initiate Planning Permission.

- Two timeframes of 6 and 12 monthly progressions, were considered. A 6 monthly increase was selected, by the Proposer, as it aligns with 6 monthly cadence of other existing CUSC security arrangements that developers are currently required to provide. This, in theory, should reduce the administrative burden to both developers and NESO.
- A 6 monthly incentive to assess a project's viability should provide a synergy with the timing of the Gate 2 application windows. The Proposer initially thought that will allow replacement projects to enter the connections queue as unviable projects are incentivised to leave. Note: The Workgroup deliberated this point at a later Workgroup meeting and the Proposer stated that it is reviewing how the proposed option for replacements would work within the MW capacity reallocation process and would be open to amending the solution in this area if required. Following a Workgroup Member and Workgroup Consultation feedback, the Proposer removed replacements from the Original Solution. Please see section iii) of this report for further detail.
- Only increasing the fee when a milestone is met would not be appropriate for the defined scope and would not provide an incentive for projects to proactively terminate prior to a milestone being hit.
- Further, a 12 monthly increase may only provide for one increase within their defined scope – providing limited additional incentive to consider project viability.

Workgroup Members queried whether the PCF would apply to projects that 'mod app' to reduce their MW capacity after their Gate 2 Offer acceptance and submitting planning (M1). The Proposer advised that this would be the case. An illustrative example of a project which had an initial TEC of 100MW which reduced to 75MW was given. The Proposer advised that in a post activation scenario²⁰ a project which reduced their TEC would have to secure against the 75MW pre M1 (which would fall away once M1 was achieved) and would be liable for the PCF on the 25MW reduction. Scenarios illustrating this are available at **Annex 04** of this report.

Although there was some support from respondents for the proposed solution, the majority of respondents to the Workgroup Consultation disagreed with the current Profile and Timing of the PCF, albeit not necessarily on the same issues. However, some

²⁰ Where the Activation Threshold has been reached and a decision taken to activate the PCF.

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respondents felt that the incentive created by the profiling of the PCF was too strong and as such would impose a high burden on large projects, and therefore, encourage otherwise viable projects to leave the connections queue. There was also feedback that the incentive was not strong enough. The feedback suggested this would lead to an ineffective incentive for projects to leave the connections queue. There was also constructive feedback on this on the subject of the perceived complexity of implementation that this approach may cause, and further that the profile and timing of the proposed solution could lead to industry uncertainty.

- would signal that the PCF should be activated.

The Proposer highlighted that if the Activation Metric exceeds the Activation Threshold, then the PCF may be activated.

- The Activation Metric will measure the cumulative project Megawatts (MWs) that are “terminated” from the Gate 2 connections queue by the respective network operator/owner as a result of Milestone termination (where a project fails to meet a Milestone) at Milestone 1.

For the avoidance of doubt, projects that voluntarily withdraw at any point, will not be included in the measurement.

The Proposer explained to the Workgroup that the Activation Metric will be used as an indicative measure for NESO and Ofgem to ascertain the prevalence of unviable projects in the Gate 2 to Milestone 1 queue.

iii) The Activation Metric

The Proposer explained that in their view, under current parameters, they could not say with certainty how prevalent the issue of project non progression would be in the Gate 2 connections queue following the implementation of the Target Model Option 4+ (TMO4+) suite of reforms. As such, they believe that the PCF should remain dormant until such a time as conditions within the Gate 2 connections queue exhibit themselves (in the view of NESO and subsequently Ofgem) as problematic.

The Proposer highlighted that two parameters would be required to ascertain when project progression in the Gate 2 connections queue becomes an issue:

- **Activation Metric:** a measure of *queue health* with respect to project progression to Milestone 1 (measured on a regular basis); and
- **Activation Threshold:** a pre-defined threshold MW value above which the measure solution stipulates that in regard to project replacement, any project MW that are subsequently replaced by another project (or projects) with a connection

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date within 12 months of the connection date of the initial (terminated) project will be excluded from the Activation Metric.

It was also advised by the Proposer that following the termination of a project, what qualifies as replacement MW capacity for the purposes of the Activation Metric will be assessed by NESO based on a number of factors, including (but not limited to) the location and technology type of the replacement connection in relation to the initial (terminated) project. If no replacement MW capacity can be identified within six months, the terminated MW capacity will be regarded (by NESO) as not having been replaced by another project (or projects) for the purposes of the Activation Metric.

Following feedback from Workgroup Members, the Proposer also advised that the Activation Metric will be measured from the date of implementation of CMP448 to 31 December 2030 inclusive (known as the “initial metric period”) and then for each five-year period thereafter²¹. NESO will measure the Activation Metric at six monthly intervals, the “measurement point”, and publish this data.

The Proposer was asked to clarify whether NESO would update the TEC register with replacement MW capacity information to give visibility of project replacements. NESO advised that it was intending to give the total MW value as opposed to a more granular project by project view. A Workgroup Member, noting that energy data transparency leads to a more efficient network and a better outcome for consumers, explained that it would be better to have this within the TEC register and highlighted that the TEC register may need to be updated to show a failure reason or category in the interests of transparency. This would, in the view of a Workgroup Member, allow industry parties (who, unlike networks, are exposed to paying the fee) to assess the risk of the Activation being activated, whereas this wouldn’t be possible if the volumetric value was published as proposed by NESO.

A DNO Workgroup Member however expressed concerns as to whether this would be possible from a practicality perspective. NESO agreed that the TEC register should be updated in a timely manner. DNO Workgroup Members confirmed that the embedded registers would also be updated in a similar fashion. This would, in the view of a Workgroup Member, allow industry to assess the risk of the Activation Threshold being activated, whereas this wouldn’t be possible if the volumetric value was published as proposed by NESO.

Workgroup Members also queried why NESO had not proposed to measure the total number of project failures/replacements as this information would also provide more transparency. NESO advised that this would be considered. A DNO Workgroup Member

²¹ So the next five year period will run from 1st January 2031 to 31st December 2035, and so on.

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suggested that CP30 was based on MW capacity as opposed to the number of projects, and would suggest that whilst a volumetric view of cumulative MW number of projects that had been terminated would provide a more intuitive method of assessing *queue health*, based on their view that the aim of CP30 was to meet MW targets and therefore the MW capacity measure felt more congruous with meeting that aim. A Workgroup Member also highlighted a concern that this could be skewed by the number of projects contributing to the Activation Threshold.

The Activation design was also explained to the Workgroup. Firstly, the Proposer discussed the reasoning around capacity termination being selected as the metric for PCF activation in the Original proposal.

- Manual activation of the PCF by NESO and/or Ofgem at any time they believe it required could create additional uncertainty for industry.
- An Activation Metric that can be published on a regular basis provides transparency to industry in relation to when the PCF is likely to be activated.
- Post TMO4+ capacity in the Gate 2 connections queue will be more closely aligned to target amounts. Therefore, the issue of “oversubscription” should largely be resolved with TMO4+ /CP30 Methodologies.
- Further, an Activation Metric based on connections queue “oversubscription” would not necessarily indicate that there is a high number of unviable projects in the queue.
- The Proposer believes that an Activation Metric based on MW capacity termination provides the strongest indication that there are unviable projects in the connections queue.

Workgroup Members raised concern regarding whether the Activation Metric being reached would essentially impose a charge on other projects that remain in the connections queue. Workgroup Members stated that this could cause unintended consequences whereby projects may purposefully drop out of the connections queue to increase costs for other competing projects. The Proposer clarified that self-terminated projects would not contribute to activation of the PCF. A Workgroup Member suggested that this should be reflected within the CMP448 Legal Text.

The Proposer advised that their Original proposal is a cumulative MW total which resets every 5 years, following review. Each year’s MW total (based on relevant affected projects) is carried over to the next subsequent year (but it is not carried over from one five-year period to another five-year period). The Proposer stated that this approach

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was selected over an approach which would be on an annual basis, and that resets every year.

The rationale behind this was as follows:

- Rather than an annual MW threshold which would reset each year, a cumulative MW value allows NESO to focus on a total “allowable” MW threshold.
- This allows for greater in-year variation, while also ensuring that cumulative impacts of attrition over time are accounted for.
- A cumulative MW total over a five-year period allows for alignment of the metric period with the application window to achieve CP30 targets in 2030, and later 2035 targets.

A DNO Workgroup Member opined that this approach seemed somewhat counterintuitive, and it could incentivise sub-optimal behaviour, and as such should be evaluated annually. The Proposer clarified that once the PCF was activated that it would stay activated in perpetuity²², negating this concern and agreed with the intention to look at this issue over a longer period of time.

Other Workgroup Members queried whether reviews should happen in line with the Transmission Price Control period(s). The Proposer advised that the intention if the Original proposal was for the PCF to remain activated, once initially activated. The Proposer agreed to demonstrate scenarios illustrating this. These are available at **Annex 04** of this report. A DNO Workgroup Member suggested that a rolling 5-year period should be considered.

The Proposer stated that the Original proposal would measure MW terminations on a national basis as opposed to at a sub queue level, such as by region or type of technology.

The rationale behind this is:

- If the Activation Threshold is met only in one region/technology and the PCF is activated there, it could lead to a perverse incentive for developers to shift investment away from that region/technology.
- Measuring MW by technology or region could potentially be perceived as discriminatory.

²² Unless and until a further CUSC Modification was raised and approved, to change (post implementation of CMP448) that element of the CMP448 solution.

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Workgroup Members broadly agreed with the Proposer regarding the application of the Activation Threshold on a national connections queue basis. However, some Workgroup Members expressed views that suggested that technology type should be considered further as a potential option.

An illustrative example was given, highlighting that there is an oversubscription of batteries in some areas of GB, whereas there may be headroom for other technologies. If a national basis rather than, say, a technology specific basis was applied this could lead to perverse incentives in the views of some Workgroup Members, and make it difficult for solar and wind projects to progress (where, in the example, there was an oversubscription of batteries). The Proposer stated that once the TMO4+ reforms are in place, oversubscription would be somewhat mitigated as there would be more alignment with permitted capacities. A Subject Matter Expert (SME) from NESO supported this standpoint.

A Workgroup Member expressed an opinion that the proposed solution may create a perverse incentive for large projects as they may be disincentivised to join the connections queue due to the level of the PCF and resultantly is potentially discriminatory against certain technologies. It was suggested that an Activation Metric per technology type should be considered by the Proposer. This was supported by other Workgroup Members who stated that this was particularly pertinent for projects with long lead time builds and those technologies which have longer timelines to meet M1, such as Offshore Wind and those projects following the Development Consent Order (DCO) and Section 36 consenting processes.

The Proposer moved to discuss MW contributing to termination and replacement in the connections queue. The Proposer advised that project MW that would count towards the Activation Metric are those that are terminated from the connections queue by NESO as a result of failing to demonstrate successful completion of Milestone 1. The rationale for this is that projects that proactively leave the connections queue before their M1 date should be excluded from contributing to the Activation Metric because this (project self – termination) behaviour is what NESO aim to incentivise through the introduction, via this proposal, of the PCF.

It was highlighted that these elements may have the potential to be gamed by developers, and that this could incentivise self-termination before M1 to avoid contributing to the Activation Threshold being breached. The Proposer said that this could be revisited if this behaviour was exhibited post implementation of the PCF. A DNO Workgroup Member stated that whilst they supported the logic, there could be a situation where there were mass withdrawals of projects to avoid activating and that this would be impactful on *queue health*.

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The Proposer accepted that there was a risk of this issue manifesting, however the principal reasoning for their position was to not punish developers for exhibiting behaviours that this modification is aiming to incentivise. Workgroup Members stated that developers may look for the cheapest viable exit strategies from a commercial perspective. The Proposer advised that they had considered this in terms of the application to the PCF to either Milestone 1 or 2, but planning permission was seen to be out of a developer's control to a certain extent, following the review of feedback to the Call for Input issued on the matter by NESO in November 2024. A Workgroup Member suggested that a way to negate this would be for the PCF not to apply to those projects which fail planning.

The Proposer also advised that (initially), project MWs were only intended to be counted towards replacement if they were not subsequently replaced by another project (or projects) with a connection date within 12 months of the connection date of the initial (terminated) project. The rationale behind this was:

- A primary concern of the PCF and Connections Reform more broadly is to incentivise the targeted MW capacity to be connected by 2030. With that in mind, terminations per se are not as much of a concern as terminations without (timely) replacement.
- NESO aims to support competition by allowing new projects to enter the connections queue and replace MW capacity that has exited.
- Replacements with connections dates within 12 months are excluded from the Activation Metric because the impact on total MW connected by 2030 is more limited.

The Proposer also outlined their intention regarding the timeframe to contribute to replacement. The timeframe of 'within 6 months' was selected over 'within 12 months' to facilitate the connection of capacity by 2030. For clarity, if no replacement MW capacity is found within 6 months (following measurement point), then NESO will count the MW capacity (from the terminated project) as not replaced.

A DNO Workgroup Member opined that this may dilute the application of the solution as this would make the Activation of the PCF more unlikely. Uncertainty was also expressed about the cycle of how a 6 monthly timeframe would work in relation to proximity to the next Gate 2 application window.

Another DNO Workgroup Member asked if NESO had considered how this would apply to DNOs/transmission connected iDNOs and whether this would allow DNOs/transmission connected iDNOs to replace customers in their respective queues and that this should

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be considered further. A NESO SME stated that there was guidance around this in the Connections Network Design Methodology (CNDM), but essentially there would be different scenarios applicable for the DNOs/transmission connected iDNOs. It was suggested that any interaction between this modification and subsequent connections reform processes should interlink. Concerns were raised by Workgroup Members that the overall proposed approach may only apply to new projects who enter the connections queue (by accepting a Gate 2 Offer) once the Activation Metric had been activated. Concerns were also expressed that this change would only impact on a relatively small proportion of the connections queue and may overly impact certain technology types. A NESO SME agreed with the logic expressed but noted that the connections queue permitted capacities would, in the future, be opened up further to account for Strategic Spatial Energy Planning (SSEP). Workgroup Members suggested that they were sympathetic to the intent of the proposal in this respect but harboured concern that this proposal may be less impactful than intended in its current state in this regard.

During the Workgroup Consultation, industry was asked to provide specific feedback on the design of the Activation Threshold. There were mixed views on this element of the proposed solution, with approximately 33% of respondents stating that they fully supported this aspect of the PCF. A majority, 54% of respondents, expressed negative sentiment towards this element of the PCF design, with particular themes, that were of concern, being highlighted:

- Respondents believed that replacements added an unneeded layer of complexity, given the relatively short timescales in which to source said replacements.
- No Technology Specific or Regional Metrics: A one size fits all approach may be detrimental to the intent of the PCF.
- Cumulative MW feature is insufficient: Does not account for exiting projects.

Prior to the Workgroup Consultation, it was proposed that if a replacement project for a terminated project can be sourced within 6 months of terminating, those (terminated project) MW would not contribute to the Activation metric. Feedback suggested that this design feature added complexity and risks allowing insufficient time to source replacements projects (for the terminated projects). The Proposer also conveyed that whilst they considered design (in parallel with the further developments of the connections network design processes), they determined that the process to identify replacements projects (for terminated projects) would likely take longer than 6 months. This would result, practically, in very few replacements projects being identified within

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the parameters of the metric as it was drafted in the previous iteration of the Original solution.

Accordingly, the Proposer aimed to simplify the modification by removing the reference to replacement projects (for terminated projects) from their proposal, as in their view, there would be minimal practical impact on the calculation of the metric. The Proposer also highlighted that this would shorten the lag between termination and measurement and simplifies operational implementation, particularly around placing an excessive burden on DNOs to identify and report replacement projects to NESO.

Previously, in the Original solution, the 6GW threshold was based on the previous assumption that the MW volume associated with replacements projects would not contribute towards the Activation Metric. There were also concerns highlighted that it would be difficult to identify and replace projects within the initial 6-month period. Feedback suggested the threshold should be increased accordingly to reflect that total MW's contributing to the PCF. Please see 'The Activation Threshold' section of this report directly below.

iv) The Activation Threshold

The Proposer originally intended that the "Activation Threshold" will be set at a cumulative total of 6,000MW for the initial metric measurement time period. The Proposer stated that the Activation should be sensitive enough to be actioned quickly if there is a problem with projects not progressing to M1 in the connections queue. Therefore, the Proposer seeks an Activation Threshold that:

- Will be met if there is a high prevalence of project non-progression; and
- Will not be met if this issue is not prevalent in the future Gate 2 connections queue.

The Proposer advised that to estimate when the Activation Threshold would be met, they have had to make several assumptions:

1. Estimate the composition of the future Gate 2 connections queue by assuming that projects currently in the queue will apply for and be allocated MW capacity based on:
 - i) Allowed MW capacity for each technology type in 2035 as set out in CP30: MW above the allowed MW capacity will not be allocated a position in the Gate 2 connections queue;

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- ii) Project maturity: those projects that already have planning consents will receive MW capacity ahead of those that do not; and
 - iii) Connection date: projects with earlier connection dates will receive MW capacity ahead of those with later dates. Projects with connection dates between 2026–2035 inclusive are included in the analysis.
2. Estimate the M1 dates of those projects that have not already submitted planning.
 3. Simulate when the Activation Threshold would be met based on different attrition and replacement rates.

To illustrate this, the Proposer has produced several example scenarios which are available at **Annex 04** of this report.

Workgroup Members queried whether the use of a capacity volumetric Activation of 6GW or a capacity percentage (where the MW level is based on X% of the published Gate 2 connections queue figure and would be transparent) within the proposal was most appropriate. It was argued that a fixed volume of 6GW would need to be amended as time goes on, whereas a percentage figure would be more sustainable and futureproof against the need for further CUSC modifications to amend this. The Proposer explained that currently data does not exist to support a percentage threshold value, but in the future this data will exist. It was also stated by the Proposer that the volumetric figure could be reviewed ahead of the next five-year period. Some Workgroup Members expressed the view that a percentage would be preferable, whereas others advised that their view was that a fixed MW volume would be more certain and provide transparency.

Following the Workgroup Consultation, the Proposer highlighted that they now planned to remove the MW volume associated with replacements projects from the Activation Metric calculation. This was due, in their view, to Workgroup feedback, that the design of this element of the solution added complexity to the PCF, and it would be difficult to source replacement projects in sufficient time. NESO also identified on the back of this feedback that sourcing a replacement project (for terminated projects) would likely take longer than six months. As a result, the Proposer removed the concept of replacement projects from their Original solution. This was welcomed by Workgroup Members.

Workgroup Members however highlighted that if the MW volume associated with replacement projects were to be removed, then the proposed threshold of 6GW would need to be considered, as replacement project volumes would have been a factor when the Proposer initially determining this initial figure, and as such the 6GW would no longer be accurate based on the previously outlined approach.

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A Workgroup Member stated that they would have expected NESO to have a quantum of replacement projects, and this should be considered when setting a new figure.

The Proposer considered this and acknowledged industry and Workgroup feedback that retaining an Activation Threshold at 6GW could result in the metric being met sooner if the volume associated with replacement projects were removed from the Original solution. As such, the Proposer amended this figure upwards from 6GW to 6.5GW, with the metric measuring the cumulative project MWs that are terminated from the Gate 2 connections queue as a result of failing to meet their M1 milestones.

The figure of 6.5GW was proposed as this was reflective of an appropriate range of expected replacement rates being 5-10%. This is 300-600MW of terminated projects that may have previously been replaced and not contributed towards the Activation Metric. The Proposer highlighted their view that based on this logic, increasing the threshold by 500MW should largely offset any potential effects of excluding the volume associated with replacement projects from the Activation Metric.

Workgroup Members questioned what data was used in order to establish the new 6.5GW threshold, in particular the expected replacement rate of 5-10%. The Proposer explained that this was based on 5% of additional capacity required to be connected to reach CP30 targets. The Proposer presented the below table to illustrate estimated Gate 2 Queue Average attrition rates required to Activation a 6.5GW threshold, based on data held within the initial impact assessment. This table does not include project self-terminations.

Estimated Gate 2 Queue Average Attrition Rates Required to Trigger a 6.5GW Threshold in Each Time Period Until 2030¹ (No Replacements²)

Period When PCF Triggered		1H26	2H26	1H27	2H27	1H28	2H28	1H29	2H29	1H30	2H30
Estimated Average Attrition Rate ⁴ to Trigger 6.5GW Threshold	Base Case ³ Gate 2 Queue	33%	26%	18%	10%	10%	10%	9%	8%	8%	8%
	High Case ³ Gate 2 Queue	34%	27%	15%	8%	8%	8%	7%	6%	6%	6%

Threshold Value Validation

- **Immediate trigger:** Threshold only met within 6-months if queue attrition is >33%, indicative of a very unhealthy queue
- **No trigger:** An average attrition rate below 8% would be required for the PCF not to be activated within the initial 2026-2030 measurement period, indicative of a healthy queue

Notes:

1. Analysis is based on Impact Assessment Data (December 2024), filtered for allowed capacity for each technology type in 2035 as set out in CP30, project maturity and connection dates
2. Given that replacement is removed, the analysis assumes the trigger threshold can be met within the first time period, as no 6-month period is required to identify replacements
3. % of estimated Gate 2 queue in scope of PCF: Base Case - 49% (86.6GW), High Case - 65% (115.5GW). The high case assumes a lower success rate of projects moving from current queue to Gate 2.
4. Attrition rates = The average Gate 2 queue attrition rate from 1H26 up until the specified time-period that would lead to 6.5GW of cumulative attrition.

Figure 1 – Activation Threshold Analysis

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The Proposer highlighted that the data provides a sense check towards the amending of the PCF Activation Metric (from 6GW to 6.5GW) insofar as it highlights that the PCF would work in the intended manner – for example if the connection queue remains relatively healthy, it will not be activated, however if the connection queue is in poor health, the ability to activate the PCF would be there to counteract this.

Workgroup Members also queried whether NESO should link the Activation Threshold to the number of projects (and not the MW volume associated with those projects). The Proposer stated that its position is that a MW volumetric activation is the most appropriate measure.

v) **Activation Governance**

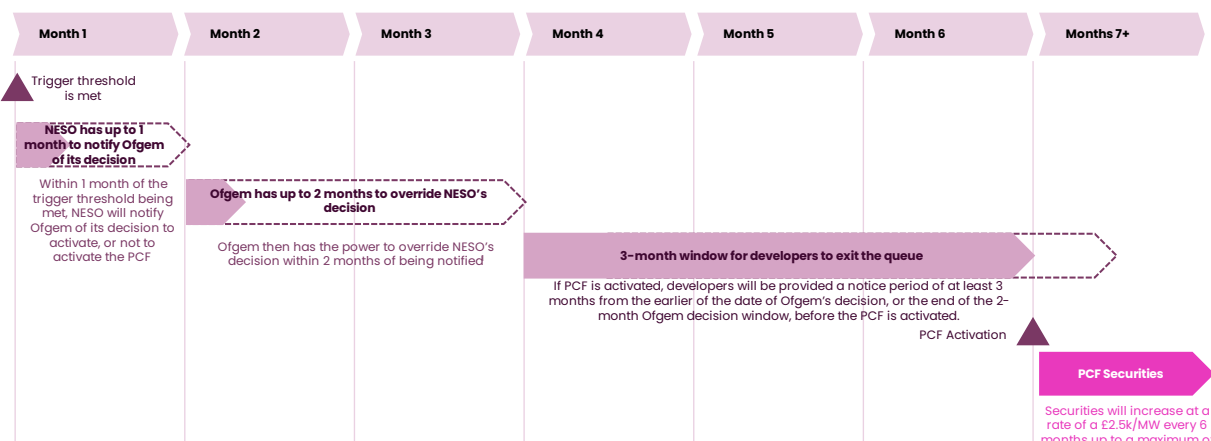
The Proposer explained that the Original solution would include an Activation Threshold which when met could lead to activation of the PCF subject to a NESO determination (which would then be submitted to Ofgem and published for stakeholder transparency) and an Ofgem determination²³ that the PCF be activated. This would use a pre-defined Activation Threshold to measure *queue health* and indicate that the PCF may need to be activated. This means that the practical application of the PCF (to relevant projects within the connections queue) would be dormant until (a) the defined Activation Threshold of 6.5GW, is breached and (b) the determination of NESO and Ofgem. This allows for a manual “sense check” by NESO and Ofgem. The initial period of dormancy is being introduced (in CMP448, when compared with previous the Financial Instrument approach) to address stakeholder concerns expressed in the earlier NESO Call For Information but would equally allow NESO to activate the PCF if needed expediently.

The following diagram in Figure 2, which details the proposed timescales for this, was shared with Workgroup Members.

²³ In practice NESO would expect Ofgem to make a determination on PCF activation. However as Ofgem cannot be obliged in CUSC to make such a determination, the legal text states that in the event Ofgem does not make a determination within the allotted time period, the determination made by NESO will stand.

Trigger Met to Activation Decision Timeline

If the trigger threshold is met and the PCF is activated, users will be provided a **notice period of at least 3 months** from the earlier of the date of Ofgem's decision, or the end of the 2-month Ofgem decision window. If a User decides to remove the project from the connections queue within this period, they will not be liable for the PCF upon termination



Note: NESO has noted that a request for an additional industry consultation during this process was requested in WG2

Notes:
1. Subject to Ofgem agreement with this proposal.

Figure 2 – Proposed Timetable for PCF Activation

The Proposer explained to the Workgroup that the Activation Threshold will be set at a cumulative total of 6,500MW for the initial Activation Metric time period²⁴, which is the approximate equivalent of 5% of the additional MW capacity (but not the MW capacity that is already installed) that is required to be connected before the end of 2030 in order to meet CP30 targets.

If the PCF is not activated by the end of the initial metric period, the intention of the Proposer is that NESO reviews the Activation Threshold ahead of each subsequent 5-year period²⁵. If, at any measurement point, the published Activation Metric, is greater than 6,500MW, the Activation Threshold will have been deemed to be met.

If the Activation Threshold is deemed to have been met at any measurement point, NESO will determine whether to activate the PCF or not and will notify Ofgem (and stakeholders) accordingly of its decision within 1 month of the Activation Threshold being met.

The CMP448 proposal is that Ofgem should then have the power to override NESO's determination (to activate / not activate the PCF) within 2 months of being notified. For

²⁴ This time period being from the date of CMP448's implementation to 31st December 2030.

²⁵ The subsequent five year period, after the initial period, would run from 1st January 2031 to 31st December 2035 and so on.

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the avoidance of doubt, there will be no ability for either NESO or Ofgem to activate the PCF unless and until the 6.5GW Activation Threshold is first met within the metric period.

If the Activation Threshold is met and the PCF is activated, Users will be provided a notice period of at least 3 months from the date of Ofgem's determination (that it be activated). If a User decides to remove their project from the connections queue within this 3-month period, they will not be liable for the PCF upon termination.

The rationale behind this was as follows:

- Manual activation of the PCF by NESO and/or Ofgem at any time they believe it required could create additional uncertainty for industry.
- The Proposer also believes that defining an Activation Metric and Activation Threshold that activates the PCF will offer industry clarity. The Proposer also believes that Ofgem should have discretion on whether the PCF is activated once the Activation Threshold has been met. This will allow NESO to account for any unforeseen events.

There was a general consensus within the Workgroup that NESO should be transparent around when the Activation Threshold has been met (and its subsequent justification of any PCF activation). The Proposer explained to the Workgroup that it was NESO's intention to be fully transparent in regard to this matter.

Workgroup Members questioned the decision-making process around the PCF activation. Primarily, the Workgroup iterated concerns regarding where the responsibility as to determining whether the PCF has been activated lay with NESO or Ofgem. The Proposer explained that whilst NESO would determine whether the PCF should be activated or not, the decision ultimately lay with Ofgem as to whether to override that NESO determination. The Proposer agreed to make this clear within the proposal.

There were views expressed in the Workgroup about whether the Activation Threshold should be measured on a rolling five-year period instead of fixed five-year blocks. It was suggested by some Workgroup Members that a rolling five-year Activation Threshold may be more logical, as it would avoid resetting to it to zero (MW), every five years, and provide a more continuous and fluid assessment, supporting the intention of the modification to ensure that unviable projects were incentivised to leave the connections queue.

As a result of this conversation, some concerns were raised by Workgroup Members around the potentially punitive impact that this fixed five-year approach may have on new projects, who had not caused the PCF to be activated by their own actions.

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Workgroup Members also sought clarity as to whether the Activation Threshold could be 'de-activated' once a decision has been made (to activate the PCF) such that, practically speaking, the PCF and PCFS were no longer applicable. The Proposer confirmed that this was not the intention of the Original solution. Some Workgroup Members suggested that they would prefer a mechanism which allows for an Ofgem review of (and potential deactivation) of the PCF if market conditions and *queue health* allowed.

A proportion of Workgroup Members suggested that the solution should include provision for an industry consultation to be undertaken by NESO before any Activation Threshold has been met, in order to understand if the threshold established is correct. Workgroup Members highlighted that similar mechanisms exist around the existing NESO Procurement Guidelines, and as such there is a precedent for this. Workgroup Members believed that this gives the opportunity for Ofgem to have a rounded view before making a determination to activate/not activate the PCF.

The Proposer advised the Workgroup that it was not currently the intention to run a NESO consultation upon its determination of the activation of the PCF. However, it is the Proposer's intention that Ofgem would have final approval as to whether the PCF could be activated.

vi) Value of the Fee

The Proposer highlighted that there was industry feedback²⁶ that the initial value of the £20,000/MW proposed in the initial Financial Instrument was too high and may be punitive especially for smaller projects. This feedback suggested that smaller projects would find it challenging to secure against this fee and as such may be impacted disproportionately.

Based on this feedback, the Proposer had amended this fee (from £20,000/MW) to be increments of £2,500/MW up to a maximum of £10,000/MW. This would take the form of a fee of £2,500/MW being applicable at the Gate 2 Offer²⁷, increasing by a further £2,500/MW at the beginning of each securities window, until M1 is reached, up to a maximum of £10,000/MW.

The Proposer stated that the rationale for this was as follows:

- a lower fee would more closely align with developer risk appetite during the earlier stages of development. In line with amending the proposal to only cover

²⁶ To NESO's November 2024 Call for Input consultation.

²⁷ This being the date when the project's Gate 2 Offer was accepted.

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the period Gate 2 offer acceptance to M1, NESO have lowered the maximum value of the PCF.

- a termination fee of £20,000/MW could disproportionately impact small developers, who may find it more challenging to secure against a £20,000/MW fee at early stages of development.

In later Workgroup meetings, the Proposer provided further clarification behind the value of the fee being set. The Proposer reiterated that once activated, the PCF applicable to a project will have an initial value of £2,500/MW. A project's PCF will then increase at a rate of £2,500/MW at 6 monthly intervals up to a maximum cap of £10,000/MW (after as little as 12 months, however this is highly unlikely) for any individual project.

Projects will be liable for the full value of the applicable PCF upon termination (either via self-termination, by the project, or via the existing CMP376 Queue Management termination) of the project (or the appropriate portion of the PCF upon reduction of the project's MW capacity) prior to the project successfully demonstrating achievement of Milestone 1. Please refer to the example scenarios in **Annex 04** of this report.

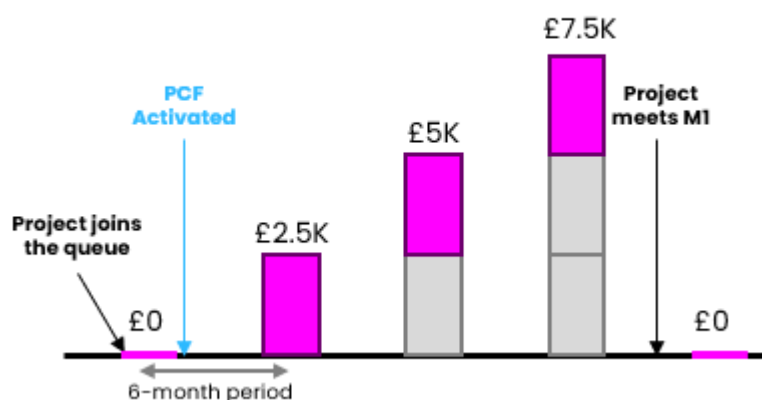


Figure 3: Demonstration of how the fee will apply

A Workgroup Member questioned the interaction between the PCF £/MW value and the existing securities set out in the CUSC. The Proposer suggested that there may be circumstances where these existing securities and the PCF may overlap, but they would not be netted off each other²⁸, as this may dilute the incentive for developers to proactively review the viability of their projects.

²⁸ Note: NESO's Financial Instrument, suggested in autumn 2024, would have introduced a £20,000/MW fee but this would have been netted off against other CUSC securities / liabilities – there is no netting, between existing CUSC securities / liabilities and the PCF, proposed as part of the CMP448 solution.

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It was suggested by a Workgroup Member that this proposal does not take account of the 'S curve' costs. The Workgroup Member suggested that a cap on overall securities²⁹ should be explored.

Workgroup Members suggested that large projects with a long connection date could be negatively impacted if there was not an overall cap. It was also noted by Workgroup Members that there may be no incentive for projects to drop out within the last 6 months before M1 milestone.

The Proposer was questioned as to why the figure of £2,500/MW was selected for the initial PCF period, as opposed to £zero/MW. The Proposer advised that if the activation threshold is met and there is a subsequent decision to activate the PCF this would be followed by a notice period of at least 3 months before the PCF would move to the stated figure. When the period of time allowed for the activation determination is included, this would result in a period of at least six months from the point that the activation threshold is breached before any securities would need to be posted. If the PCF has already been activated at the point that a project enters the Gate 2 connections queue (when the accepted Gate 2 offer is countersigned by NESO), the PCF would be £2,500/MW at the point of entry and would then increase to the next step in the next securities window. The Proposer stated this was to keep later securities aligned for ease of implementation for NESO and the industry.

It was suggested by some Workgroup Members that an alternative option that could be explored is that the PCF and securities should cap out at £20,000/MW in totality (which aligned with what NESO had suggested, to the industry, when it discussed its Financial Instrument approach in autumn 2024). This was ultimately not taken forwards by the Workgroup.

Workgroup Members also suggested that transparency would be increasingly important about how many projects and the quantum (of MW capacity that contributed to the Activation Threshold) and what impact that this would have on the market. This would give a level of assurance to the market in the view of some Workgroup Members. Workgroup Members also sought clarity about how the PCF would interact with securities.

The Proposer confirmed that the **PCF only** would cap out at £10,000/MW. If a project was to be subject to other existing CUSC securities, then that projects' overall liability could exceed the £10,000/MW PCF (only) cap.

²⁹ The existing CUSC ones plus this new PCF.

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Workgroup Members deliberated over whether the £/MW value of the fee should apply to all technology types differently, or whether a single PCF should apply to all projects, as put forward within the Original proposal. The Proposer stated that the rationale for selecting a PCF which applies equally to all technologies (and irrespective of where in GB they are located) was that:

- Defining discrete technology categories and then assigning projects to them creates additional complexity, e.g. what's the treatment of co-located assets and novel technologies.
- Determining bespoke PCFs would be difficult given the wide range of Net Present Values (NPV) for projects within technology buckets and overlap of NPVs between different technologies.
- Applying different PCFs per technology may risk driving investment towards or away from different technologies based on differences in the PCF for each.
- Discounted PCF values for smaller projects/companies may encourage gaming. For example, a single connection may be split into multiple connections.
- Introducing a single PCF on a per MW basis inherently accounts for variations in project size.
- The cap acts as a safeguard against an ever-increasing PCF value and mitigates disproportionate impacts to projects with less access to finance.
- Any differential treatment between technologies would require a robust justification as, at this time, the Proposer does not believe it would be able to provide such a justification

A number of Workgroup Members disagreed with this rationale on the basis that this approach did not consider that certain technology types could be adversely impacted through no fault of their own.

An example of this would be projects with longer lead times such as a large offshore wind project which could accumulate a large PCF under the current proposal. The Proposer stated that the £10,000/MW cap provides a level of safeguarding which serves to mitigate issues such as this and that other elements of the proposal should mitigate disproportionate impacts.

One Workgroup Member also conveyed a view that the proposal is disproportionately impactful to certain projects by increasing 'S-Curve' exposure. The Proposer stated that as the PCF only applies up to Milestone 1, rather than Milestone 7 as under the previous

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version of the proposition, exposure to other CUSC securities in the window where the PCF is applicable would be lower relatively.

The Workgroup asked a targeted question within the Workgroup Consultation as to whether the PCF Value, included within the Original solution, was appropriate. The feedback on this was somewhat mixed with 37% of respondents indicated that they supported the proposed value of the PCF.

However, the majority of respondents (9/15) indicated that the fee was at a level which was too high. A minority (3/15) stated it was too low. For those who stated that it was too high, a recurring reasoning for this was that it levies disproportionate impacts on developers and subsequently industry as a whole. Of the respondents who stated that the level of the PCF fee was too low, the feeling was that the proposed level gives an insufficient incentive to developers to exit the connection queue if their project is unviable, and in a timely manner.

Several respondents also highlighted that the inputs used to arrive at the fee value, such as the cost of financial funding, were flawed, a feeling that was also reciprocated by several Workgroup Members. In particular, one Workgroup Member stated that they believed these inputs had made the level of the PCF fee too high. Another Workgroup Member stated that they considering the PCF, as a percentage of Development expenditure (DEVEX), was also incorrect – as the PCF is technically not a DEVEX cost but is an additional element of financing required. Workgroup Members stated that this is particularly punitive in regard to community projects.

The methodology which was used to arrive at this fee was revisited as a result and is discussed further in the “assessment of Risk against project value at pre-planning stage” section below.

The approach to how the PCF £/MW Value was determined by NESO was also presented by NESO SME. The Workgroup discussed an example around PCF £/MW Value determination and what it means to be an *unviable* project.

- It is supposed that a developer estimates that the NPV of a project is slightly negative, i.e. the present value of all expected future operational cashflows after project commissioning is slightly less than the present value of the expected remaining DEVEX and Capital Expenditure (CAPEX) required to commission the project.
- The developer’s estimate of the project NPV may therefore change over time, either favourably or unfavourably.

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- A project with a negative NPV at a point in time can either proceed with development, or exit the connections queue, or “delay” the decision to exit or proceed.
- The option to delay will be the optimal action if there is a low cost to remain in the connections queue. A PCF with sufficient £/MW value will make room in the connections queue for developers with more viable projects by changing the optimal action from “delay” to “exit”.
- The Proposer used a scenario-based approach to estimate the £/MW value of the PCF.

This would leave a developer with three options:

Developer Options

- A project is in the gate 2 connections queue, prior to milestone M1.
- The developer estimates that the NPV of future cashflows is slightly negative.
- The developer’s estimate of the project NPV may change over time, either favourably or unfavourably.

Option 1: Continue with project development

This is **unlikely** to be optimal as a developer will likely try to minimise or delay project spend.



Option 2: Exit the queue now

This is likely to be the optimal action if there is an **increasing cost** to remain in the queue.

Option 3: Minimise Devex and re-evaluate after 6 months

This is likely to be the optimal action if there is a **low cost** to remain in the queue.

The PCF makes room in the queue for developers with more viable projects by changing the optimal action from Option 3 to Option 2.

Figure 4: Developer Actions

The NESO SME highlighted that if there is no incentive for a developer to decide on whether a project is unviable, the cost of waiting in the connections queue to make that decision (or to see how project variables may play out in light of a negative NPV) should be increased to incentivise unviable projects to leave the connections queue. It was clarified that the PCF is designed to incentivise movement from Option 3 highlighted above to taking Option 2 illustrated in the above figure.

A Workgroup Member stated that it was their view that the Milestones in Connections Reform already incentivise this behaviour as they encourage a project to keep moving forwards, and pausing would effectively make cost recovery in a shorter period of time harder, so the incentive will already exist as a result of those reforms. The NESO SME

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explained that the PCF is designed to focus developers on whether they would meet Milestone 1.

The Workgroup Member reiterated their point that they believed that the milestones in Connections Reform were already designed with this in mind. The Proposer advised that there are forward and backward-looking elements for Milestone 1. The forward-looking elements come into effect only when there is a connection date in the late 2020s, anything else would be subject to backward looking M1 elements. The Proposer reiterated that the PCF would initially be dormant, and this proposal was put forward with this consideration in mind.

A Workgroup Member suggested that the modelling assumptions³⁰ did not necessarily call out that the PCF provides a mechanism to incentivise projects waiting in the connections queue to leave. Another Workgroup Member asked the Proposer to consider looking at tweaking the proposal so that the PCF is only imposed in a certain timeframe before the M1 milestone is due.

The NESO SME also discussed the methodology behind assigning a value to the PCF. The SME highlighted that “Real Option Analysis” underpinned the methodology behind setting the PCF value.

- Real option analysis is a financial evaluation methodology that assesses the value of flexibility and strategic decision-making within uncertain business environments. It can be applied to evaluate the value of the choice to continue or abandon a project in the future, depending on changing market conditions.
- Real options are typically valued using models for financial option pricing, adapted to incorporate the specific characteristics of the underlying real asset and the relevant uncertainties.
- The value of a financial option is related to the potential of an underlying market variable to change. In this case, a project’s underlying costs and revenues can change over time.
- The NESO SME outlined how they value the “option to delay”, i.e. the value of not being required to commit now to a project but instead having the option to decide whether or not to invest after 6 months. The NESO SME then set the value of the PCF to be greater than the value of this option.

The following scenario assumptions in the figure below were presented to the Workgroup:

³⁰ Presented by NESO’s SME consultant.

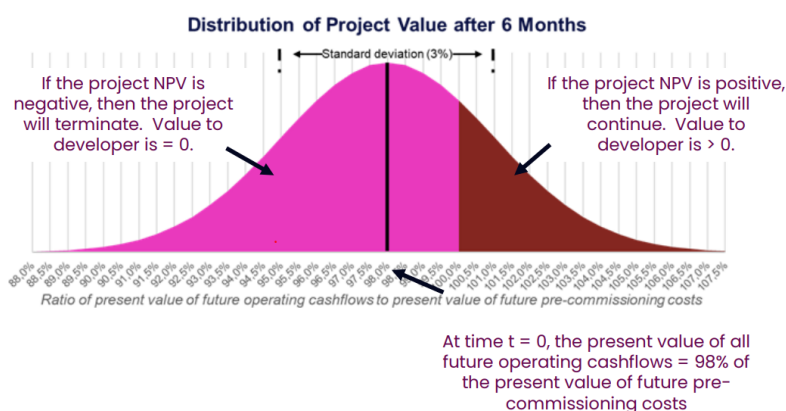
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Negative Project Value

- Suppose that the present value of future operating (post-commissioning) cashflows, discounted at the project's WACC, is equal to 98% of the present value of pre-commissioning costs.
- NPV is therefore negative by 2% of CAPEX
- Further DEVEX is paused.

Change in Project Value

- The project's NPV may change over the coming 6 months. Expected costs may decrease or expected revenues may increase.
- Changes in NPV over 6 months are normally distributed with mean 0 and standard deviation of 3% of the project's pre-commissioning costs.



Some future outcomes have termination value = 0 and some outcomes have continuation value > 0. The expected (i.e., probability-weighted) value to delay is therefore positive.

Figure 5: Scenario Assumptions

The following value assumptions and results were also presented to the Workgroup:

Valuation Assumptions

- Suppose a project's **discounted operating cashflows are 98% of the discounted pre-commissioning costs.**
- Additional **DEVEX is paused.**
- Suppose that these operating cashflows and pre-commissioning costs can **change over 6 months** so that the change in the project's NPV **is normally distributed with mean of 0 and standard deviation of 3%.**
- The project will continue if discounted operating cashflows are > 100% discounted pre-commissioning costs after 6 months, and it will be abandoned otherwise.
- Suppose the project's **remaining required pre-commissioning costs (DEVEX and CAPEX) are £500,000/MW.**

Valuation Results

- Applying a financial option pricing methodology, **the value of the "option to delay" is £0.0044 per pound of pre-commissioning costs.**
- On a per MW basis, **the value of the "option to delay" is £2,218.65/MW.**
- A PCF with a value of **£2,500/MW per 6 months** is sufficient to incentivise the developer to abandon this project without a delay.

Figure 6 – Valuation Assumptions and Results

A Workgroup Member questioned whether there would be any effect if the Weighted Average Cost Capital (WACC) in the assumption changes. From a theoretical standpoint, the Workgroup member stated that a project with a higher WACC would be more likely to fall away than one with a smaller WACC and requested that an example be produced to this effect. The NESO SME stated that the £2,500/MW figure is notional and recognised the point by the Workgroup Member. A further Workgroup Member questioned whether the Proposer had considered the probability of a project attaining a

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Contract for Difference (CfD) within the modelling. The NESO SME confirmed this is why the ratio of discounted future costs to discounted future revenues was an explicit assumption, in order to minimise the number as inputs into the valuation model. The Workgroup Member stated their view that DEVEX was more binary than this but recognised the complexity.

Another Workgroup Member highlighted that there is a cost to developers, whether that is cost of capital or risk. The Workgroup Member opined that these costs would ultimately be passed on to the end consumer. It was queried whether the system benefit outweighs the cost to developers. A similar concern was raised by a DNO Workgroup Member who opined that a “worst case” scenario could be that the PCF could be Activated, but projects finance this, and projects deliver, as this would not speed up the time taken to connect to the system, offsetting the benefit from a whole system perspective.

vii) Assessment of risk against cost of financing

A NESO SME presented to the Workgroup on cost of financing considerations that were undertaken whilst developing the proposal in regard to the maximum PCF cap and impacts on smaller developers. The NESO SME advised the Workgroup that the proposal was designed on the premise that the £/MW value of the PCF should be low enough so that the cost of financing the PCF would not unduly impact a project's viability.

An illustrative scenario was presented to the Workgroup which looked at the cost of financing the PCF as a proportion of Project DEVEX (Development Expenditure). Please see Figure 7 below.

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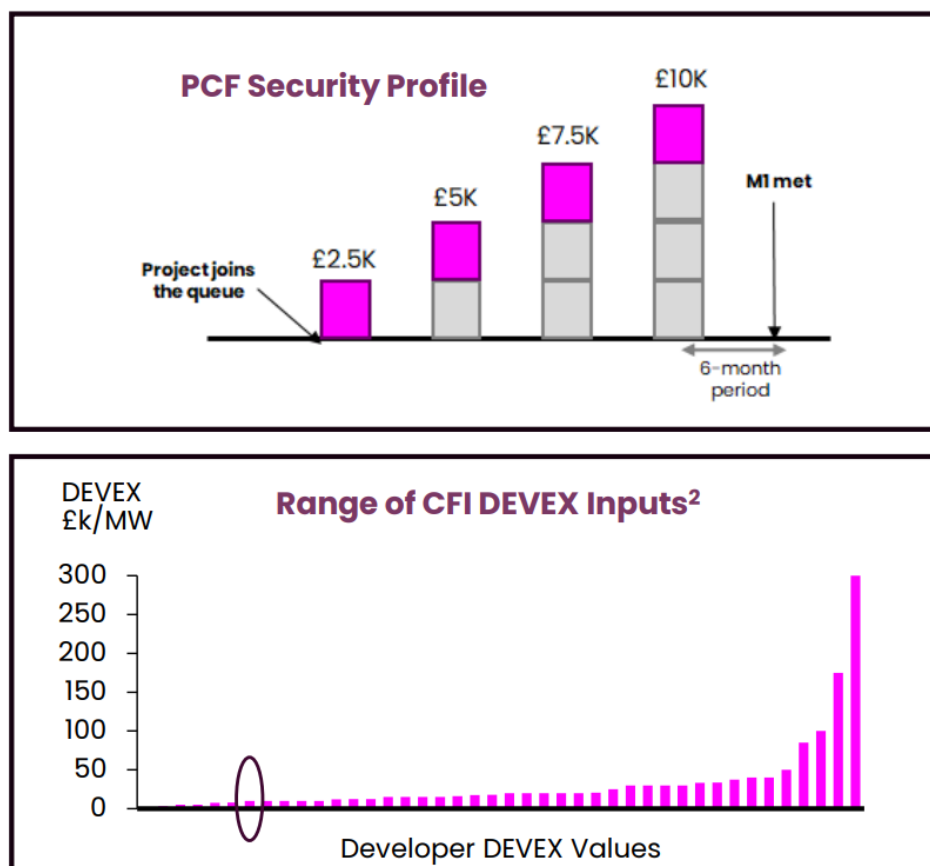


Figure 7: Scenario to illustrate the cost of financing the PCF, including as a proportion of project DEVEX (Development Expenditure)

The scenario presented made three assumptions in total:

1. Security Financing Rate: 8% per annum³¹
2. Financing Period: 24 months from joining the Gate 2 connections queue to passing Milestone M1.
3. DEVEX³²: CFI responses reported a significant range for DEVEX. NESO selected £10,000/MW.

The NESO SME advised that following industry feedback to their CFI, the decision was made to modify the initial proposal. Under the initially proposed design³³ (i.e. £20,000/MW before Milestone M7), the Financial Instrument would have had an

³¹ Most of the industry responses to NESO's November 2024 CFI responses (that quoted overall cost of capital) ranged from 7% to 13%, excluding outliers. NESO believe financing costs for acceptable securities would be based on cost of debt, and thus 8% is a conservative estimate.

³² CFI DEVEX estimates for Batteries, Solar, Onshore Wind and Offshore Wind.

³³ As put forward to industry by NESO in the autumn of 2024 and known as the 'Financial Instrument'.

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estimated cost of £6,400/MW (assuming 4 years in the connections queue before M7 and an 8% financing rate). Under the design of the CMP448 Original proposal, the estimated additional cost of financing the PCF is £1,000/MW or 10% of DEVEX (based on DEVEX at the low end of the indicated range), providing a much higher level of safeguarding for smaller projects based on the aforementioned assumptions.

A Workgroup Member raised some queries around the scale and range of DEVEX inputs to the CFI as they would expect smaller developers to recover their costs over a smaller quantum. The same Workgroup Member also stated that they would also expect a smaller developer to have a larger WACC. The NESO SME stated that they understood the argument around proportionality. In regard to the 8% financing rate figure, the NESO SME highlighted that the cost of capital may not be wholly reflective of the cost of financing the PCF and that the cost of debt may also be a way to look at this. They also noted that the sensitivities were linear.

A Workgroup Member stated that it wasn't clear how projects would be financed from a debt perspective and asked whether NESO had reflected upon this. The NESO SME advised that the rationale was that the 8% financing was a conservative estimate. The Workgroup Member stated that it was their experience that until Final Investment Decision (FID), projects would be equity backed and believed that the financing rate used in this modelling (of the PCF effects) would be generous as opposed to conservative. Other Workgroup Members expressed agreement with this point, saying this would be particularly prevalent for projects which do not go into planning, as opposed to those that do. A concern in relation to this point was raised about instances outside of a developer's control as far as planning was concerned.

Another Workgroup Member stated that they believed that for projects which stay in the planning period for more than 2 years, that this should be looked at more thoroughly. The NESO SME highlighted that the correlation between projects that would be in the connections queue prior to M1 for a longer time and the type of technology would be an interesting comparison as the overall proportion of the PCF would be smaller compared to a smaller development. The Workgroup Member gave an example of offshore wind farms where there could be a punitive impact due to the large number of connections queue Gigawatts involved.

The feedback received via the Workgroup Consultation regarding the proposed approach was largely negative, reflecting sentiment expressed within the Workgroup. Only 6 of the 35 non-confidential responses reflected support for the proposed approach, in particular raising concerns regarding financing assumptions, nuances around technology types and impacts on developers of different sizes. This feedback,

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followed by a need for further clarity on this matter, saw the NESO SME return to the Workgroup to provide further clarification on the proposed approach.

Workgroup Members queried whether the term “safeguarding” was appropriate, as there was a feeling amongst Workgroup Members that the analysis merely demonstrated the scalability of the PCF, as opposed to demonstrating any specific safety measures designed to protect projects within the connection queue that fell liable to the PCF / PCFS. Workgroup Members queried the validity of the safeguarding, on the basis that there could be an undesired impact that otherwise viable projects may be forced to leave the connection queue as a result of the PCF. There were also views that the analysis commissioned by the Proposer did not consider a wide enough range of projects to adequately say that the PCF doesn’t unduly impact otherwise viable projects in the connection queue. Workgroup Members also highlighted that the PCF would be harder for smaller projects to shoulder and were critical of the assumptions made regarding the cost of DEVEX and financing for these projects.

Following Workgroup Consultation feedback and concerns raised by Workgroup Members, the NESO SME returned to answer queries, on the analysis, from Workgroup Members.

Workgroup Members raised concerns about the assumption that developers can pause development costs (DEVEX) and still meet the individual project M1 milestone deadline and argued that pausing development may possibly lead to project failure. The NESO SME responded by acknowledging this challenge regarding the assumption of paused development costs and agreed that if development costs continue, the value of the PCF would (or should, see below paragraph) be lower. They explained that a zero level was chosen as a conservative assumption to simplify the analysis. A Workgroup Member questioned this assumption, stating that this assumption may or may not be true and that this report should be conditional in its language to reflect this.

Workgroup Members also challenged the approach of valuing projects, within the connection queue, as if the probability of the projects being built is 100%, emphasising the high probability of failure for pre-planning projects and the need to account for recuperating costs of failed projects. The NESO SME clarified that the 98% assumption made in the analysis includes the probability of success and other risks. They aimed to minimize assumptions and simplify the analysis by incorporating these factors into the 98% value.

Concerns were also raised, by Workgroup Members, pertaining to a view that the analysis did not consider the statutory processes developers must follow, which impact project timelines and costs. The NESO SME acknowledged this concern but emphasised

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that the PCF aims to incentivise developers to make early decisions about project viability, even with these statutory processes in place.

Workgroup Members challenged the approach to new substations where a developer does not know their exact connection point until their project's Gate 2 offer is received, which can affect project viability and the fairness of the PCF. This was recognised by the NESO SME, particularly around the uncertainty it creates for developers. They reiterated that the PCF is designed to challenge developers to make informed decisions about their projects' viability.

There was a general view that the financing rate assumption (used within the indicative scenario presented by the Proposer) of 8% might be too low, as most projects are financed by equity at this stage, which has a higher cost. The NESO SME presented a sensitivity analysis with various financing rates to address the concern that 8% might be too low, showing the impact on developers at different rates. It was noted that this was scalable. Please see below figure.

Cost of Financing the PCF Security

Based on a range of security financing rates (6–20%)¹ and financing periods (0.5–5 years)², the PCF security financing costs range from £75/MW to £8500/MW.

Key	Financing Cost (£/MW)	Security Financing Rate (%)														
		6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
Original Estimate	0.5	75	88	100	113	125	138	150	163	175	188	200	213	225	238	250
	1.0	225	263	300	338	375	413	450	488	525	563	600	638	675	713	750
Lower Financing Cost	1.5	450	525	600	675	750	825	900	975	1050	1125	1200	1275	1350	1425	1500
	2.0	750	875	1000	1125	1250	1375	1500	1625	1750	1875	2000	2125	2250	2375	2500
Higher Financing Cost	2.5	1050	1225	1400	1575	1750	1925	2100	2275	2450	2625	2800	2975	3150	3325	3500
	3.0	1350	1575	1800	2025	2250	2475	2700	2925	3150	3375	3600	3825	4050	4275	4500
	3.5	1650	1925	2200	2475	2750	3025	3300	3575	3850	4125	4400	4675	4950	5225	5500
	4.0	1950	2275	2600	2925	3250	3575	3900	4225	4550	4875	5200	5525	5850	6175	6500
	4.5	2250	2625	3000	3375	3750	4125	4500	4875	5250	5625	6000	6375	6750	7125	7500
	5.0	2550	2975	3400	3825	4250	4675	5100	5525	5950	6375	6800	7225	7650	8075	8500

The values presented in the above table are intended to provide greater clarity on any potential costs associated with financing the PCF security based on the specific financing arrangements and timelines relevant to a project in scope of the PCF.

Notes:

- Most of the CF responses that quoted overall cost of capital ranged from 7% to 13%, excluding outliers; we chose an expanded range of security financing rates up to 20% as requested by workgroup members
- The financing period ranges from 0.5 – 5 years, representing an expanded range as requested by workgroup members

Figure 8 – Cost of Financing the PCF Security, extended to illustrate scalability

There was concern expressed by a Workgroup Member that simply showing a wider range of PCF financing rates/sensitivity analysis did not address the likely impacts the PCF would have on viable progressing projects. The Workgroup Member felt that sharing financing rates lower than the approximate cost of equity distorted the picture of what PCF costs would credibly be and so underestimated the cost such projects would bear in reaching FID. The Workgroup Member asked that the credibility of different financing

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rates be acknowledged in order to understand the additional project costs that a developer would incur to get its project to a point of FID.

viii) Projects in Scope of the PCF

The Proposer highlighted to the Workgroup projects that would be in scope of the PCF, referencing Figure 9 below.

Projects in scope for the PCF

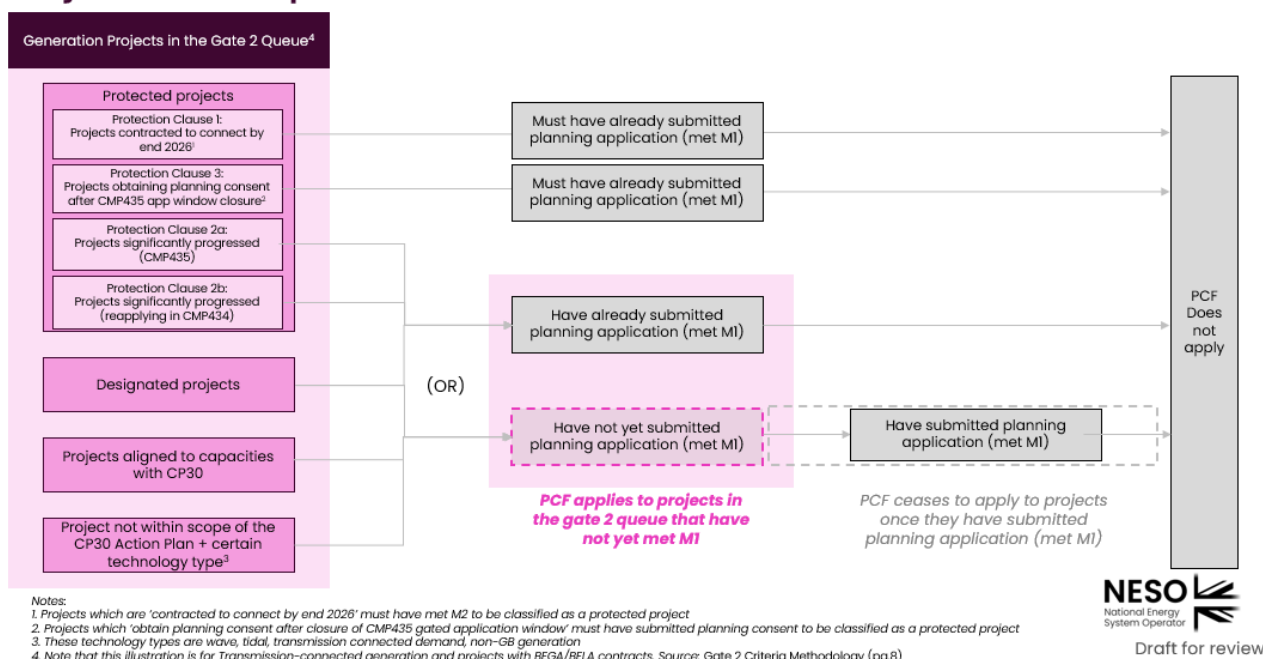


Figure 9 – Projects in scope of PCF

The Proposer highlighted that when projects submit their Gate 2 Readiness Declaration (that is that the project meets the Gate 2 criteria) they would have to evidence land rights or planning permission. If they could evidence planning permission, then the PCF would not apply if the project subsequently received (and accepted) a Gate 2 Offer (and the PCF had been activated). It is envisaged that the PCF would apply to transmission connecting generation projects and Small, Medium and Large distribution connecting generation projects who are themselves party to agreements under CUSC or are otherwise captured through the CUSC process which evaluates the impact of such connections on the NETS.

NESO is continuing to engage with DNOs and transmission connected iDNOs to understand implications, on DNOs/iDNOs and embedded generators, of this CMP448 modification. The Proposer also highlighted which projects would be protected, as highlighted on the left-hand side of Figure 9 above. It was noted that the PCF would not

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apply post M1 for these projects. A Workgroup Member reiterated that transparency around the quantities of these projects would be important.

A near equal number of responses to the Workgroup Consultation agreed and disagreed with the outlined scope of the CMP448 Original proposal. Those who agreed highlighted the alignment with pre-existing user commitments as a key reasoning. Those that disagreed highlighted concerns around CP30 Alignment, impacts on both smaller and larger developers, and the lack of data around the proposed defect.

A response highlighted concerns around the practicality for embedded customers, and customers who have short lead times to their project M1 milestone. Workgroup Members also highlighted this as an issue. The Proposer noted that they were considering the burden on all industry parties in regard to this. This ultimately led to the Original solution being amended so that all projects (both transmission and distribution connecting) with M1 milestone dates less than six months from the date the Gate 2 contract is counter-signed by NESO will not have to post a PCF security.

ix) Demand Projects

The Proposer discussed, in reference to Term of Reference (e), that demand projects were not in scope of this modification. Their rationale for this was as follows:

- Historically, the defect has been observed more among generation customers (than demand customers).
- Demand projects are already subject to the Final Sums Methodology which provides a material financial commitment to development.
- The Proposer believe that introducing additional commitments, for demand projects, at this stage may not be appropriate.
- However, the Proposer noted that CUSC modification CMP417 seeks to extend “User Commitment Methodology” to all Users currently on Final Sums Methodology. Depending on the outcome of that modification (CMP417), then NESO may consider raising a further and separate modification (to this CMP448) in the future to consider broadening the application of the PCF (if approved) in order to ensure appropriate financial incentives for all Users between a project acceptance of its Gate 2 Offer and that project’s Milestone 1.

The Workgroup discussed whether demand should be included subject to approval of CMP417 as a way to futureproof and avoid the need for further CUSC modifications. The Proposer however did not believe that it is appropriate to consider this within this CMP448 proposal, as there are differences that would be required to replicate the

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CMP448 approach across to demand projects, including but not limited to a new Activation Threshold and new Activation Metric. The Proposer believes that there is not the same drive to increase demand in the same way as there is to increase generation so a fundamentally different approach to determining the Activation Threshold would be required (if demand projects were to be included within the solution for CMP448). The time periods for which this would apply for demand would also need to be considered as the generation Queue Management milestones (introduced by [CMP376](#)) would not be appropriate to use.

The majority of respondents to the Workgroup Consultation agreed with the proposed approach regarding the exclusion of Demand Projects from the PCF due to these projects already facing liabilities via Final Sums methodology. Those who disagreed highlighted that demand projects may benefit disproportionately from this approach when compared to generation competitors.

x) PCF Scenarios

The Workgroup were presented with various separate scenarios around how the Proposer envisages the PCF would be activated. These are available in full at **Annex 04** of this Workgroup report, to aid with understanding of how the PCF will work in terms of its application. These scenarios have been updated following the most recent Workgroups and Workgroup Consultation. When respondents to the Workgroup Consultation were asked for their views on them, 26/35 showed supportive sentiment towards them and found that they were helpful in aiding their understanding of the PCF.

The Workgroup questioned a scenario around the initial activation period. Workgroup Members observed that the period could be up to six months, dependent on when a project signs its connection agreement, as the PCF profile is to be tied to the existing 6 monthly Cancellation Charge securities schedule. Under the Original proposal, this means that the PCF could increase to £5,000/MW almost immediately after the date of the Gate 2 agreement being signed (and therefore increase to the maximum level of £10,000/MW within as little as 12 months from the date of the Gate 2 agreement being signed). The Workgroup noted that under WACMI, which reduces the PCF by a factor of 10 and adds a six-month grace period, the comparable value of the PCF would be £250/MW using the same scenario parameters, rising to its maximum value of £1000/MW after as little as 18 months.

xi) NESO position on “Queue Health”

The Workgroup reviewed the Terms of Reference following discussions and feedback at Workgroup meeting 1. Workgroup Members sought clarity from the Proposer with regard to the terminology included in the Terms of Reference, namely *queue health*. The

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Proposer advised that the defect identified in CMP448 is that developers aren't currently incentivised to assess the viability of their projects and leave the connections queue where necessary. This leads to an inefficiency where unviable or stalled projects block other viable projects from connecting at the earliest opportunity.

- For the purpose of this modification, the 'queue' refers to the Gate 2 connections queue between Gate 2 Offer acceptance and User Progression Milestone 1 for in scope projects (including transmission connecting generation, interconnection, storage and applicable embedded connecting projects).
- Where the proposal refers to the Activation Metric being an indicative measure of *queue health* the Proposer is colloquially referring to the relative prevalence of unviable or stalled projects in the "queue"; i.e. a queue in 'poor health' would contain a high amount of unviable or stalled projects and a queue in 'good health' would contain a low amount of unviable or stalled projects.

Workgroup Members suggested that the Proposer should be clear on what would constitute a "high amount" of unviable or stalled projects; i.e. a 'poor queue health'. The Proposer suggested that this would be the 6GW figure. Workgroup Members challenged whether it should be based on a percentage of the connections queue as opposed to volumetric. The Proposer stated that a percentage was considered, however, they believed volume to be a better metric measure (than percentage). Workgroup Members suggested transparency from NESO would be key in regard to this.

Some Workgroup Members suggested that the current definition of the connections queue, for the purposes of the PCF, may need to be broader to encompass everything that had accepted a Gate 2 Offer (so not be limited to generation and interconnector projects but include, for example, demand projects). Further clarifications were also sought from Workgroup Members around *queue health*. The Proposer highlighted that the PCF has been designed to apply only to relevant projects between their Gate 2 Offer acceptance and their Milestone 1 because:

- The longest period between User Progression Milestones is between Gate 2 Offer acceptance and Milestone 1. During this period, projects are less likely to be exposed to significant User Commitment sums³⁴. Consequently, this is the stage where a project can occupy the connections queue for the longest duration, while also facing the least incentive for proactive and timely withdrawal.

³⁴ As set out elsewhere in the CUSC.

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The Proposer views the period between Gate 2 Offer acceptance and Milestone 1 as the period that carries the highest risk of projects failing to progress and persisting in the connections queue for longer than necessary. The defect that this modification seeks to address is limited to this period of time. Project progression towards submission of a planning application (the activity between Gate 2 Offer acceptance and Milestone 1) is largely within the control of the developer. Workgroup Members believed that the wording in the Terms of Reference (see **Annex 02**) around the perceived defect would need to be amended to reflect the uncertainty around whether the defect would come to fruition. The Terms of Reference were amended accordingly and approved by CUSC Panel on 7th March 2025 at a Special CUSC Panel.

The Workgroup Consultation asked a targeted question regarding the definition of *queue health*. Just over half of responses that were received agreed with the proposed definition of *queue health*, with others suggesting amendments or that the concept was somewhat arbitrary. Following the Workgroup Consultation, the Proposer decided to retain the definition of *queue health*, which was proposed on the basis that in the proposal the Activation metric is referred to as being an indicative measure of *queue health* the Proposer is referring to the relative prevalence of unviable or stalled projects in the connections queue between Gate 2 entry and User Progression Milestone 1; i.e. a queue in poor health would indicate a high prevalence of unviable or stalled projects (the identified defect that CMP448 seeks to minimise / reduce) in the connections queue.

A Workgroup Member opined that there is still a lack of transparency regards how the initial 6,000 MW activation threshold (increased to 6,500MW) was calculated., The Proposer accepted that there was a relevant historical attrition data to base the threshold on, however information as to the workings behind the figure were discussed openly with the Workgroup. The Proposer stated in Workgroup 3 that NESO used data they held in conjunction with assumptions to determine a threshold that allows the PCF to be activated at an appropriate time. Further to this, the Proposer also presented analysis which demonstrated that the Activation Threshold would only be met in unhealthy queue scenarios. These slides are available in **Annex 04**.

xii) **DNO/iDNO Interactions**

The Workgroup were keen for the Proposer to establish how the PCF would impact embedded, and distribution connected projects. The Proposer agreed that NESO would:

1. engage with DNOs and transmission connected iDNOs through a weekly meeting with the Energy Network Associate (ENA) Strategic Connections Group: TMO4+ Impacts & Assessments Sub-Group;

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2. consider how best to engage the DNOs and transmission connected iDNOs via the Connections Reform Implementation Hub facilitated by NESO; and
3. liaise with DNOs and transmission connected iDNOs on how to engage with affected embedded generation as necessary.

The Proposer noted that the period between Gate 2 Offer acceptance and User Progression Milestone 1: Initiated Statutory Consents and Planning Permission (Milestone 1) is the longest in the User Progression milestones and carries the highest risk of projects failing to progress and persisting in the connections queue longer than necessary. However, the Proposer and Workgroup Members recognise that this may not be the case for DNO, or transmission connected iDNO connections due to the different User Progression Milestone dates for these projects. NESO will work with DNOs, and transmission connected iDNOs to ascertain if any changes are required. The Proposer will also work with DNOs, and transmission connected iDNOs to provide clarity on how this process will be implemented by DNOs and transmission connected iDNOs given that NESO is not currently aware of the queue management milestones for embedded Generators. The Workgroup have also discussed potential alternatives approaches which could exempt some or all embedded projects from the requirement to be liable for / pay the PCF. Please see the “Consideration of other options” section below for further information.

Engagement between NESO and DNOs/ transmission connected iDNOs is ongoing at the time of publication of this Workgroup Report and the Workgroup has been regularly updated as to any output (of that engagement) that NESO has provided to the Workgroup.

Responses to the Workgroup Consultation highlighted that a large majority of respondents did not believe that the proposal considered the interface with embedded, and distribution connected projects adequately. Some respondents believed that some form of exclusion should apply to these projects as the perceived problem lies at transmission level. Concerns were also raised around the uncertainty the PCF places on these projects. The Workgroup considered this feedback from industry, and a potential Alternative Request was suggested by ENWL to address this (please see section on alternatives). However, this potential alternative did not receive majority support from Workgroup Members. Likewise, whilst this feedback was considered by the Proposer, the Original solution was not amended to incorporate this as the Proposer’s view is that the

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PCF should be applied across distribution and transmission connecting projects to ensure equitable treatment.

A Workgroup Member highlighted a concern that there was a potential for DNO's to inflate connection charges as a result of the PCF. A DNO Workgroup Member said that no DNO would do this and pointed to DCUSA 5.74 on Independent System Operator Charge. Another Workgroup Member said there was still a need in their opinion to appropriately codify this in the event that CMP448 is implemented, as referenced Distribution Connection and Use of System Agreement (DCUSA) 5.74 only applies to elements of the Cancellation Charge which are associated with works – which the PCF is not. A DNO Workgroup Member responded that the CUSC would not be the appropriate code but that a DCUSA modification could be raised to clarify that this provision also applies to the PCF, should CMP448 be implemented.

xiii) Securities

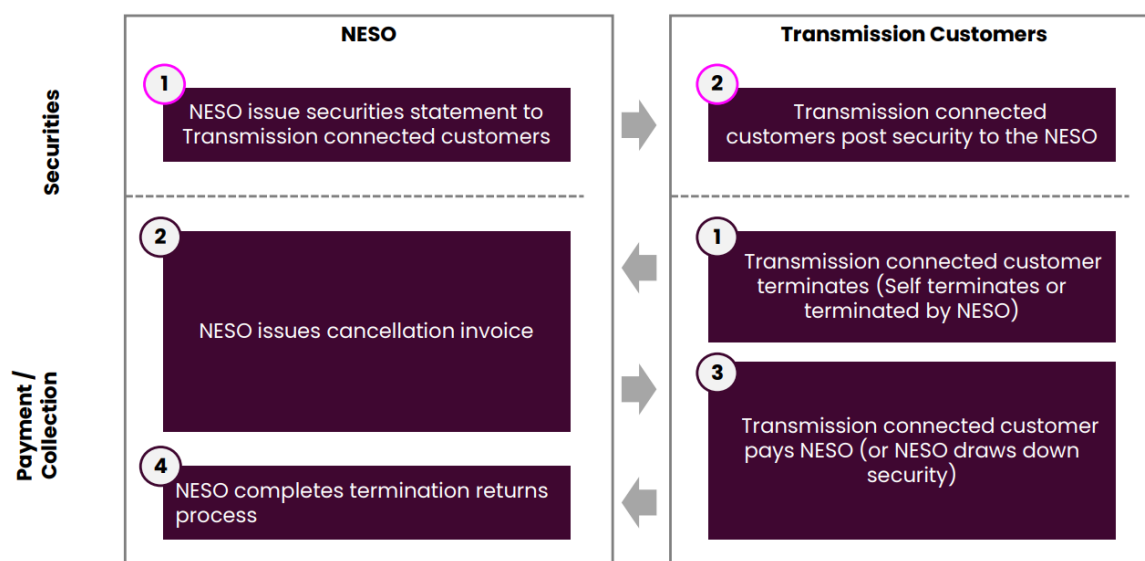
Following the Workgroup Consultation, the Proposer highlighted the proposed treatment of Securities as part of the PCF.

At a high level:

1. NESO finance believe that the best approach is to embed the proposed PCF securities process within the existing User Commitment process; and
2. The PCF would be regarded as a cancellation charge and therefore sit within the CUSC Exhibit MM1 statement.

The below two figure outlines the high-level interfaces process between NESO, and Transmission connected customers for existing User Commitment securities. The Proposer outline their intention that the PCF securities process will embed within these existing processes as much as possible. It was also highlighted that the intention is that this applies also to any embedded customer that holds a Bilateral Embedded Generation Agreement (BEGA) with NESO. This would be included with their DNO statement.

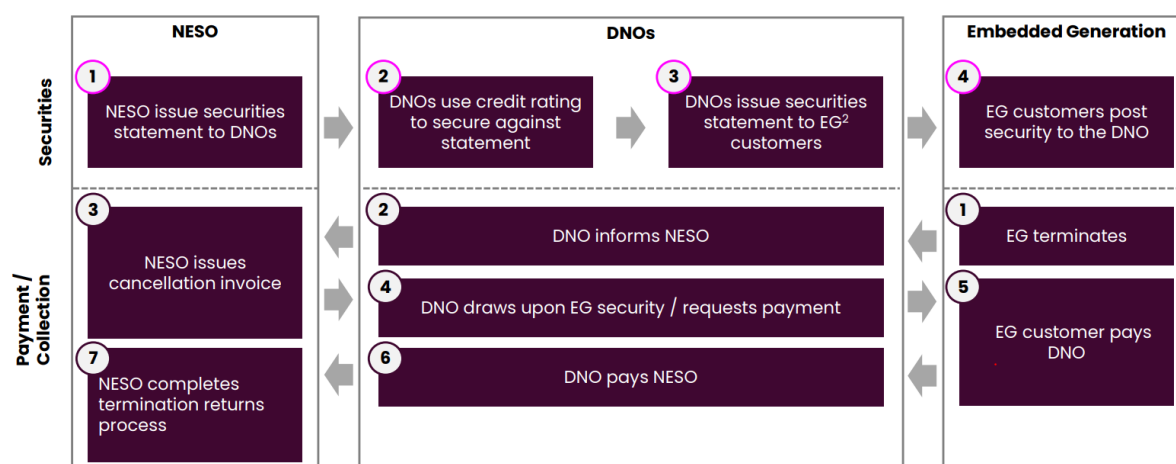
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Notes:

Figure 10: Current Interfaces between NESO and Transmission Connected Customers for existing User Commitment securities

The current interfaces between NESO and distribution customers are somewhat more complex (to that for transmission shown above), as there are interfaces between the DNO and NESO, and the DNO and the embedded customer. Please see below diagram. Once again, the Proposer highlighted their intent that this process would be replicated as far as possible with the pre-existing securities process.



Notes:

1. Source: NESO SME input
2. EG = Embedded Generation

Figure 11: Securities Process for Distribution Connected

The proposed timelines for the securities process were also highlighted, by the Proposer, to the Workgroup. Please see below:

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Securities: Initial Timeline with PCF

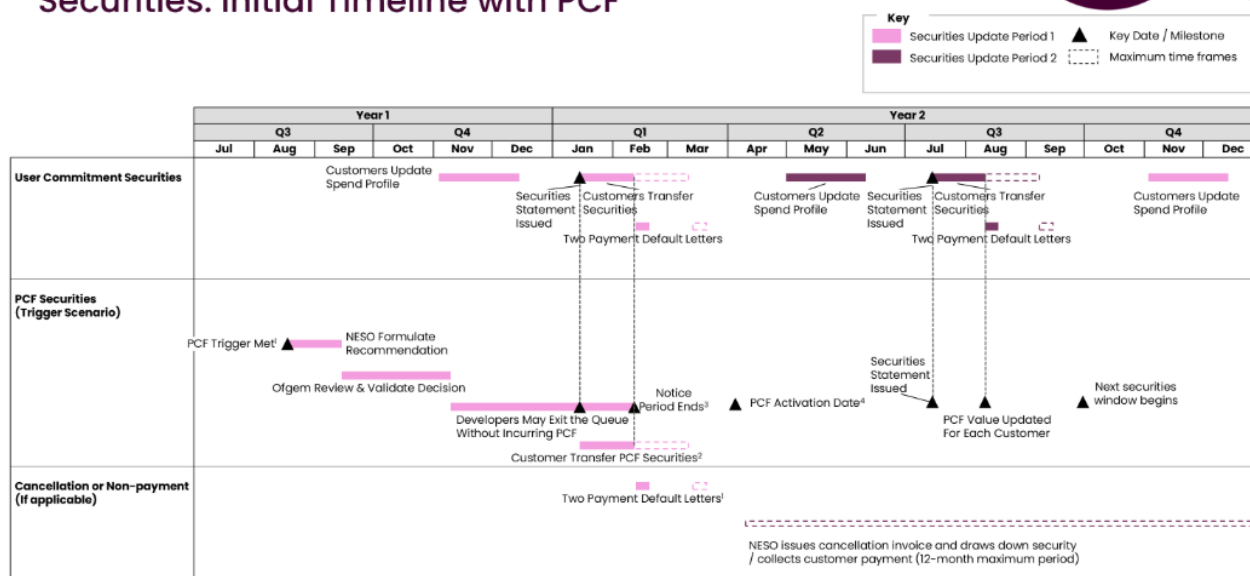


Figure 12: Securities Timelines

The Proposer stated that their intention was to embed the PCF process into the pre-existing securities process to reduce the administrative burden, and as such these pre-existing and CMP448 proposed timelines would have to align. Under the current arrangements, there are two securities periods each financial year (April to September, and October to March). The Proposer highlighted that if securities are not received (by NESO from a project) before the deadline, then two separate default letters are sent to the project before the termination (of that project) is initiated. The default process and subsequent dates for the PCF will need to align with these dates as demonstrated in the above table.

The Proposer talked through how this would work in practice.

Milestone	April-September Period	October-March Period
PCF Activation Threshold met	1 st August	1 st Feb
NESO Decision	Latest 1 st September	Latest 1 st March
Ofgem Decision	Latest 1 st November	Latest 1 st May
Notice Period	At least 3 Months	At least 3 Months
Securities Statement Issues	15 th January Y+1	15 th July Y+1
Secured via Credit	15 th February Y+1	15 th August Y+1

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Secure vis Cash	11 th March Y+1	11 th September Y+1
First Event of Default Letter (in event of failure to do so)	+1 Business Day	+1 Business Day
Second Event of Default Letter (in event of failure to do so)	+ 5 Business Days	+ 5 Business Days
Terminations Process Begins	+ 1 Business Day	+ 1 Business Day
PCF Activation Date	1 st April	1 st October

Figure 13 – PCF Dates

NB – Any Activating after 15th August /15th February would fall into next period.

The Proposer noted that more engagement with DNOs around the data transfer process would be needed for both measurement of the Activation Metric and the collection of PCFS. The Proposer also advised that, the PCF would be included in the MM statement.

A Workgroup Member observed that whilst they notice that for User Commitment, the timescales are clearly defined, but under the TMO4+ package, the dates users receive Gate 2 offers may not align, and therefore thought should be given to this regarding the drafting of the legal text. The Proposer acknowledged this and understood the complexity around the Gate 2 application windows, however as these are unknown at this time, the PCF timelines have been developed to fit the known timelines of the existing securities process.

Some Workgroup Members also highlighted the need to avoid discrimination towards Distribution connected projects in legal text drafting, through ensuring that the PCF liability and security would be effectively pass through costs and ensuring there would be no mechanism whereby distribution connected projects could be subjected to different liabilities than Transmission connecting projects.

xiv) Terminations Process and Rules, including return of PCF via TNUoS to users

The Proposer talked through the proposed Termination Process and Rules. Please see below table:

Overview of Current Terminations Process and Rules¹

Terminations Process Overview	Key Terminations Rules
<ol style="list-style-type: none"> Cancellation Charge Statement Issued: <ul style="list-style-type: none"> NESO issue statement bi-annually (MMI statement) Security Requirement Applied: <ul style="list-style-type: none"> Customer confirms credit rating or provides financial security for estimated charge Notification of Key Consents (if applicable) <ul style="list-style-type: none"> Customer informs NESO of progress on project 'Key Consents' which affects the charges Termination Event: <ul style="list-style-type: none"> Termination of agreement or reduction in capacity Includes if a customer does not post the full security Issue Cancellation Invoice Upon Termination: <ul style="list-style-type: none"> Invoice raised based on liability value in previously issued statements Final Reconciliation (for 'actual securities'²): <ul style="list-style-type: none"> Within 12-months post termination, NESO issues final charge and adjusts for over/underpayment Final Payment or Refund: <ul style="list-style-type: none"> Customer pays shortfall or NESO refunds excess <p>Overall Process Duration: 12 months</p>	<p>General:</p> <ul style="list-style-type: none"> Cancellation charge applies to customers self-terminated, terminated by NESO, or reducing capacity early Disputes don't delay payment or security rights. NESO can call on security even if there's an ongoing dispute (however resolution may be pursued before exercising this right). Interest applies on any payment adjustments if cash security place/ <p>Distribution and Embedded Generation:</p> <ul style="list-style-type: none"> EG customers (excluding BEGAs) post securities to DNOs not directly to NESO. This is a separate commercial agreement DNOs secure with NESO utilising credit ratings, this still applies regardless of any change in EG customers liability

Notes:

1. Sources: CUSC Section 15: User Commitment Methodology, NESO SME Input

2. Customers can either choose to fix their attributable works liability or base on actual spend profiles, final reconciliation only applies in the case the customer has chosen the 'actual' option

Figure 14 – Overview of Terminations Process and Rules

The NESO SME clarified that there would be no differentiation between those projects on fixed user commitment. They also confirmed that the fixed profile was for attributable works, and if the PCF is applied this will be in addition to the fixed user commitment. The NESO SME also confirmed that 6 monthly statements would still be produced, by NESO, for those projects on a fixed user commitment profile.

Further clarification from the Workgroup was sought on the attributable and wider cancellation charge. The Proposer advised that the PCF would be separate to this. One Workgroup Member highlighted the provisions in CUSC Section 15 Part 4. The Proposer confirmed that the PCF would not be applicable to elements such as the reconciliation and notice of key consents but would broadly align to the Cancellation Charge where applicable.

The Proposer also clarified how all the sums associated with the PCF that were collected from those Users with relevant projects would be returned, collectively, to all Users via the TNUoS charge³⁵. The Proposer confirmed that the intention of the modification was to return any sums recovered via the PCF via TNUoS, It was explained that the PCF would only

³⁵ TSt is defined as the difference between Cancellation Charges received from Users and Final Sums paid to the TOs. £X invoiced will be within total Cancellation Charge within the TSt term, and will therefore be passed through to TNUoS charges

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be invoiced (to a relevant project) and treated as revenue, if a User were to terminate. It was also clarified that any cash held as a security, e.g. in escrow is not treated as revenue at the time at which it is being provided by a User (for a relevant project) to NESO.

The Proposer advised that Workgroup that under NESO's Electricity System Operator Licence (condition F3.3), "TSt" is defined as the difference between Cancellation Charges received (by NESO) from Users and the Final Sums paid (by NESO) to Transmission Operators. The item "TSt" feeds into the allowed revenue that NESO collects via TNUoS tariffs. Revenue received by NESO from invoiced PCFs will be within the total Cancellation Charge revenue in the "TSt" term and will be therefore passed through to TNUoS charges. This would therefore result in a reduction in TNUoS charges for all Users (collectively).

Using a very simple, illustrative, example, if the recovery of TNUoS for TOs in a given year was £100m and a credit of £1m were to be received from a project for a PCF cancellation, then TNUoS payers would pay £99m via TNUoS, instead of £100m, with the £1m shortfall being made full by the PCF credit of £1m. This would be undertaken on a GB wide basis. The TOs would be paid the full £100m, but only £99m would be recovered from Users liable for TNUoS charges.

xv) Hybrid and Staged Projects

The Proposer set out their intended approach for Hybrid and Staged Projects. For staged projects, the Proposer clarified that a Staged Project is a project where the MW capacity will be connected at different times: this is referred to as a Staged Project. Different stages of the same project are assigned separate connection dates, and therefore different M1 milestone dates, and the TEC / Developer Capacity / Interconnector Capacity. In principle, individual stages are treated separately with respect to connection queue management. The PCF applies to each individual stage, based on the MW capacity of that stage.

Below is an illustrative example of staged project data is highlighted:

	Contract Date	Connection Date	M1 Date	TEC MW	Technology
Overall Project Contract	Dec 2027	Multiple	Multiple	300MW	Solar
Stage 1	-	Jan 2030	27 HI	200MW	Solar
Stage 2	-	Jan 2033	29 HI	100MW	Solar

Figure 15: Staged Project Data illustrative example

Hybrid Projects are projects in which an individual project contains multiple technologies (e.g. solar, batteries, wind). In principle, the PCF applies to the entire stage (or full project if it only has one stage), including all technologies within the stage, based on the MW capacity.

An Illustrative example of hybrid project data is highlighted below:

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	Contract Date	Connection Date	MI Date	TEC MW	Technology
Overall Project Contract	Dec 2027	Jan 2030	Jan 2030	300MW	Multiple
Technology 1	-	-	-	-	Solar
Technology 2	-	-	-	-	Battery

#	Scenarios	Approach to Apply PCF
1	<ul style="list-style-type: none"> One technology drops out of the project between Gate 2 and MI, or fails MI 	<ul style="list-style-type: none"> Customer to update TEC for the new project. PCF will be collected for the reduction and will still apply for remaining TEC MW pre MI
2	<ul style="list-style-type: none"> One technology has passed MI <i>criteria</i> – a planning application has been submitted for one technology, but not yet for the other technology¹ 	<ul style="list-style-type: none"> Different technologies are not treated individually because TEC is assigned at a project/stage level, and not by technology. The whole stage only passes MI when all technologies within the stage have met the MI criteria <p>(For the avoidance of doubt, this approach has not changed since WG7)</p>
3	<ul style="list-style-type: none"> One technology (e.g. solar) passes MI criteria, but the other has not yet passed MI criteria The second technology (e.g. battery) then drops out of a project between G2 and MI, or fails MI. However, the TEC MW for the overall project stage remains unchanged even though the second technology drops out. 	<ul style="list-style-type: none"> Where only one technology (e.g. solar) passes MI, the PCF still applies to full stage TEC (see Scenario 2). If the second technology (e.g. battery) then fails MI or drops out but there is no reduction in TEC, there would be no PCF charge for termination (see Scenario 1). The stage would now no longer be liable to the PCF given the remaining technology has already passed MI

Figure 16 – Hybrid and Staged Scenarios

The Proposer was asked to provide a third scenario whereby one technology type drops but the capacity is retained. The above table clarifies this position in Scenario 3.

The Proposer highlighted a potential issue regarding hybrid projects. Hybrid projects do not have an associated MW capacity value at the individual technology level but only at the stage and project level. This raises the question of how to apply the PCF to different technologies within the same project / stage. Two scenarios were presented, by the Proposer, to the Workgroup:

#	Scenarios	Approach to Apply PCF
1	One technology drops out of the project between Gate 2 and MI, or fails MI	Customer to update TEC for the new project. PCF will be collected for the reduction and will still apply for remaining TEC MW, if pre MI
2	One technology has passed MI <i>criteria</i> – a planning application has been submitted for one technology, but not yet for the other technology ¹	Different technologies are not treated individually because TEC is assigned at a project/stage level, and not by technology. The whole stage only passes MI when all technologies within the stage have met the MI criteria.

Figure 17: Hybrid Project Scenarios

Workgroup Members sought clarity around planning progression for the two technology types, in a scenario where one technology does not progress. The Proposer stated that this would be unlikely, but in a hybrid project within a single stage, there is only one MW capacity value for the combined technologies, so they cannot be split. A Workgroup Member questioned this approach, as their view is that this will potentially mean that hybrid projects stay in the connection queue. The Workgroup Member and the Proposer agreed that any potential MW capacity reduction should be penalised. The Proposer

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stated that in their view, the TEC MW capacity (or developer/ interconnector capacity) would need to be taken into consideration as this is what the contract between NESO and customers is based on. A Workgroup Member stated whilst they appreciated the need for simplicity, that this may result in greater costs being incurred by the developer.

Another Workgroup Member questioned how hybrid and staged projects would impact the Activation Metric. The Proposer confirmed that the associated MW capacity would be treated in the same way as other projects that were to fall away. Workgroup Members raised concerns regarding this and stated that overall MW capacity being connected could be the same, as such the MW volume shouldn't be counted in the same way as non-hybrid or staged projects.

Feedback was also received on this point regarding the TO treatment of staged projects. A Workgroup Member highlighted that they had experienced issues with staged and hybrid projects as the TO's will only stage a project when the MW capacity is associated with each stage. A developer may wish to connect one of the technologies earlier than another as they have different development cycles. The MW capacity is associated with the first technology in the offer (typically battery). TO's are unable to include a technology with zero MW capacity. The Workgroup Member stated that if this was possible it may address the issues that the Proposer is trying to solve with the approach to hybrid and staged projects. Workgroup Members also stated that this should also be considered regarding distribution connected projects. The treatment and determination of project stages is out of scope of this modification.

xvi) Capacity Reduction Scenarios

Regarding capacity reduction, the Proposer conveyed that if the PCF has been activated and a developer reduces its project MW capacity, then the developer will be liable to pay a portion of the applicable PCF proportionate to the reduction in MW capacity. The PCF will be recalculated in line with its revised MW capacity for the purposes of updating the PCF security required. Two example scenarios were given on how MW capacity reduction would work if the PCF had been activated, and a developer reduces the MW capacity of the project. The developer would be liable for the PCF on the MW capacity they have reduced, and then they would also be required to securitise against the MW amount of capacity that remains:

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Example Scenario 1:

A project reduces its capacity from 100MW to 75MW: PCF has been activated and the PCF value for the project at the time is £2,500/MW

Before reduction:

PCF for capacity held = £2,500 x 100MW = £250,000

Developer is required to post PCF security of £250,000

After Reduction:

PCF for capacity held = £2,500 x 75MW = £187,500

PCF for capacity terminated = £2,500 x 25MW = £62,500

Developer is required to post PCF security of £187,500 and required to pay PCF of £62,500

Example Scenario 2:

A project reduces its capacity from 100MW to 90MW: PCF has been activated and the PCF value for the project at the time is £10,000/MW

Before reduction:

PCF for capacity held = £10,000 x 100MW = £1,000,000

Developer is required to post PCF security of £1,000,000

After Reduction:

PCF for capacity held = £10,000 x 90MW = £900,000

PCF for capacity terminated = £10,000 x 10MW = £100,000

Developer is required to post PCF security of £900,000 and required to pay PCF of £100,000

Figure 18: Capacity Reduction Scenarios

A Workgroup Member queried how this would work for sub-megawatt values. The Proposer clarified that such scenarios would be treated no differently.

xvii) M1 Dates

The below tables were presented to the Workgroup for clarity, regarding illustrative M1 dates relative to connection dates, with proposed forward looking calculated milestones.

Transmission Connecting Illustrative M1 dates relative to connection dates: backward and proposed forward-calculated milestones¹

Connection date	Backward calculation ² assuming offer date H1 2026	Forward calculation ³ assuming offer date H1 2026		
	M1 date	M1 date (Town & Country)	M1 date (Section 36, DNS, DCO)	M1 date (Offshore)
2026	Bilaterally negotiated	2028 ⁵	2029	2031
2027	Bilaterally negotiated	2028	2029	2031
2028	H2 2026- H1 2027	2028	2029	2031
2029	2027	2028	2029	2031
2030	2027	2028	2029	2031
2031	2027	2028	2029	2031
2032	2028	2028	2029	2031
2033	2029	2028	2029	2031
2034	2030	2028	2029	2031
2035	2031	2028	2029	2031

Key points

- M1 dates will be both backward and forward-calculated by NESO in future under the proposed methodology in CMP434: Implementing Connections Reform
- Under the amended methodology, M1 dates will be the earlier of either forward or backward-calculated dates, with forward dates calculated from when the offer has been issued⁴
- In the forward calculation, projects will have the following amount of time to complete M1:
 - Town & Country: 24 months
 - Section 36, DNS & DCO: 36 months
 - Offshore: 60 months
- No Queue Management Milestone can be later than the project connection date, regardless of calculation method (please see ~~strike through~~ dates)

Developers will receive the earlier of the backward-calculated or the applicable forward-calculated M1 date

Figure 19 – M1 Connection Dates

xviii) Consumer Impact Analysis

As Workgroup deliberations were being finalised, and at the request of Workgroup Members, the Proposer brought forward some analysis on the consumer impact that

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CMP448 may have. This Analysis received a considerable amount of feedback from Workgroup Members. Some Workgroup Members wished to clarify within the report that this analysis was undertaken by the Proposer, and as such is representative of the Proposer's view on Customer Impacts, as opposed an agreed view of the Workgroup.

The Proposer highlighted to the Workgroup Members why, in their view, that the PCF could translate into financial benefit for consumers. It was explained that when the queue is unhealthy, that delays to connections timelines would manifest. These delays would lead to higher costs for developers, and subsequently higher costs for electricity consumers. Activating the PCF when the queue is unhealthy (would, in the Proposer' view) lead to earlier connection dates, and therefore lead to reduced costs for developers. This would, in the view of the Proposer, translate to cheaper energy prices for the consumer.

Several Workgroup Members challenged the Proposer regarding these perceived financial benefits, in particular the assumption that the PCF would be needed in an unhealthy queue scenario, when project progression milestones may also achieve a similar desired outcome. The Proposer countered this view, expressing that if a project is terminated at M1 date. If the PCF was in place, there are 6 monthly incentives for the project to leave the queue ahead of being charged the PCF. This allows other projects to move forwards at an earlier date. The Workgroup Member said that the potential acceleration of projects is an upside, this may be outweighed by the downside of being delayed to a G2 offer date. This was supported by other Workgroup Members.

The Proposer also conveyed (in their view) a range of benefits that could be realised from the introduction of this modification. The Proposer stated that the analysis was underpinned by the key principle in that the PCF would incentivise behaviours in the Gate 2 To Whole Queue (G2TWQ) connections queue, leading to more timely connections by viable projects.

Developer Savings

The Proposer stated that it was their belief that there would be potential for a direct impact from CMP448 that post-PCF activation, developers are likely to spend less time in the queue vs an unhealthy queue pre-PCF activation. This would in the Proposer's view, reduce developer costs, which would flow through to consumers. The Proposer also highlighted that they believed that there would be an indirect benefit, highlighting that pre-PCF activation, the introduction of the Activation metric itself could encourage efficient behaviours, such as self-selection out of the queue earlier, resulting in developers spending less time in the queue, reducing costs.

A Workgroup Member, supported by others, stated that they felt that this argument is somewhat unbalanced. The Workgroup Member stated that the Proposer's view was

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counterintuitive as the modification could add up to 10% DEVEX costs onto developers, and time in the queue was not proportionate to DEVEX. Other Workgroup Members questioned whether savings to developers would flow back to consumers. A Workgroup Member stated their view that this would result in less being spend on development in general as opposed to consumer savings.

Network Operator Savings

The Proposer stated that PCF activation is likely to incentivise the removal of unviable projects from the queue in a timelier manner, providing a positive impact on consumers that will be realised by the cost savings associated with limiting wasted resources and the inefficient allocation of network capacity.

Some Workgroup Members stated disagreement with this view from the Proposer, highlighting significant unintended consequences. Once such unintended consequences would in the view of some Workgroup Members whereby large and long lead time projects may be incentivised to stay in the queue past M1 rather than leaving the queue earlier, as the cost to go through the Planning Process is much less than the penalty imposed by the PCF. This could impact smaller, more viable projects by preventing their connection, and leading to no network savings.

CO2 Reductions

The Proposer set out their view to the Workgroup that intention of the PCF is to expedite average connection dates, low carbon sources of generation should increasingly displace fossil fuel generation sooner, leading to lower CO2 emissions. Consumer net welfare could increase as a result.

A Workgroup Member made the argument that that much of the CO2 reduction benefit would be achieved by the TMO4+ reforms, and the benefit that CMP448 would have (in their view) ultimately marginal benefit in comparison. Another Workgroup Member advised that regarding CP30 quotas, CMP448's impact may be far smaller than expected on the basis that a large number of projects in the CP30 categories will have submitted planning and as such exceeded requirements for the PCF.

Increased Economic Output

The Workgroup were advised that in the Proposer's view, a shorter connections queue and earlier connections as a result of CMP448 could enable more generation to connect to the system, facilitating greater economic output.

A Workgroup Member, supported by various others, stated that as CMP448 has disregarded attrition, then a significant risk exists that there will be less projects in the

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national project pipeline, and many viable projects would no longer exist due to not having a queue position, resulting in a higher cost of project for the NETS. Other Workgroup Members suggested that equity costs would also rise as a result of the PCF. It was also noted by a Workgroup Member that (in their view) the effects on cost of capital, project risk premiums and hurdle rates would be realised irrespective of whether the Activation Threshold was ever reached. Therefore, implementation of CMP448 would directly result in real downside costs to industry (and therefore also consumers), with only intangible, unproven and likely relatively smaller upside potential. Another Workgroup Member noted that diversion of good development capital to fund the costs associated with the PCF would also have a net negative effect on resultant Economic Output.

Assumptions made within the Analysis

The Proposer shared the below figure with the Workgroup, highlighting what needs to be in place for the PCF to have a net benefit to consumers, taking into account reduced DEVEX costs against the cost of financing the PCF:

What needs to be true for this analysis to show the PCF to have a net benefit on consumers?

DEVEX financing benefits due to PCF activation must outweigh PCF financing costs for there to be a net benefit to the consumer

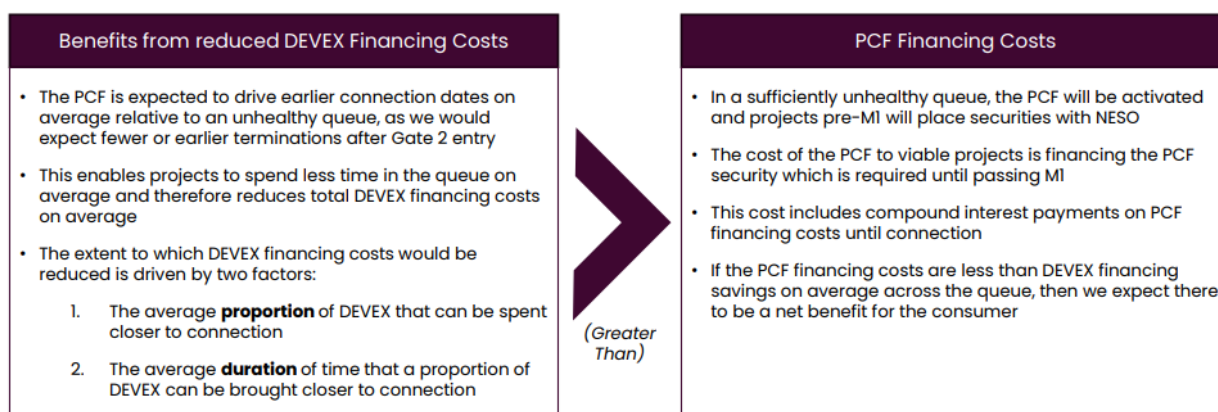


Figure 20: PCF Assumptions for consumer net benefit

A Workgroup Member stated that the logic from the Proposer seemed somewhat flawed, as not all costs associated with the PCF were listed in the above figure. Examples were given by the Workgroup Member included costs such as overall cost of capital in the market, and risk adjusted views from developers on hurdle rates, beyond the specific financing costs of the PCF – which could proportionately be much higher value effects. Another Workgroup Member stated that if the queue is healthy and the PCF is not

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activated, developers would still experience rising risk premia and costs of capital to their costs, in case the PCF is activated, thus adding costs.

A Workgroup Member asked for clarity as to whether the Proposer assumed that all elements of DEVEX had the same financing costs. A NESO SME stated that these values were taken from the data received in the NESO CFI on the Financial Instrument and stated that the DEVEX and the CAPEX were different, with DEVEX being taken up until FID, and CAPEX thereafter.

The SME presented the below information to the Workgroup regarding the likelihood of consumer benefit arising from the introduction of the PCF. Please see below:

What is the likelihood of a consumer benefit from the PCF?

Overview

- This analysis evaluates aggregate costs and benefits to the consumer based on the additional generation capacity¹ required until 2035 to meet CP30 targets
- PCF Financing Costs²** are derived from the application of the PCF financing rate to the value of the PCF until a project passes M1³. Compound interest payments on PCF financing costs until connection are also considered
- DEVEX Financing Benefits** are derived from projects spending less time in the queue on average and therefore a proportion of DEVEX being spent closer to connection

Indicative Benefits to Costs Ratio (Scenario 1)

Assumptions: WACCs: c.8-12%⁴ (CFI data), PCF Financing Rate: = WACC

Key	Net Consumer Cost	Neutral to Consumers	Net Consumer Benefit
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Benefit Cost Ratio (BCR) = DEVEX Financing Benefits/PCF Financing Costs		No. years connections are earlier versus an unhealthy queue							
DEVEX spent closer to connection		0 ⁵	0.25	0.5	1	1.5	2	2.5	3
	10.0%	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.3
	20.0%	0.0	0.2	0.4	0.8	1.3	1.7	2.1	2.5
	30.0%	0.0	0.3	0.6	1.3	1.9	2.5	3.2	3.8
	40.0%	0.0	0.4	0.8	1.7	2.5	3.4	4.2	5.1
	50.0%	0.0	0.5	1.1	2.1	3.2	4.2	5.3	6.4
	60.0%	0.0	0.6	1.3	2.5	3.8	5.1	6.4	7.6
	70.0%	0.0	0.7	1.5	3.0	4.5	5.9	7.4	8.9
	80.0%	0.0	0.8	1.7	3.4	5.1	6.8	8.5	10.2
	90.0%	0.0	1.0	1.9	3.8	5.7	7.6	9.6	11.5
	100.0% ⁶	0.0	1.1	2.1	4.2	6.4	8.5	10.6	12.7

PCF activation will reduce untimely attrition from the queue on average, reducing the time for equivalent projects to connect

Earlier average connection dates should result in viable projects having less time to finance DEVEX spend, reducing costs

Figure 21³⁶ – Likelihood of Consumer Benefit from the PCF

³⁶ Notes from Figure 21:

- Analysis is based on the additional generation capacity requirements for Solar, Onshore Wind, Offshore Wind and Battery at transmission and distribution level until 2035, based on CP30 requirements
- PCF financing costs remain the same across the range of scenarios presented in the Benefit Cost Ratio
- The duration that the PCF is applicable to projects has been estimated conservatively based on the application of forwards and backwards calculated milestones by technology
- Overall WACCs have been derived by technology (Solar: 10.7%, Onshore Wind 10.7%, Offshore Wind: 8.5%, Battery: 12.1%) from CFI responses; note that the Onshore Wind value is based on best available from a small sample size
- '0 years' column added as requested by Workgroup. Given that connection dates are unchanged in this scenario, the DEVEX financing benefits are 0.
- Higher proportions of total system DEVEX spent closer to connection (inc. 100%) is more likely the less amount of time that DEVEX is spent closer to connection

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The NESO SME advised that it was important to note that this analysis was a system wide view of projects connecting now up to 2030 as opposed to the developer level view. This took into account:

- i) What are the total financing costs of the PCF for all additional generation capacity connecting between now and 2030.
- ii) What are the total DEVEX financing benefits associated with this capacity.

It was highlighted that when the benefits are greater than the costs, then there would be a net benefit to the consumer. For the PCF financing costs, these are broadly aligned with the previous PCF analysis shared with this Workgroup. For the time the PCF is applicable, this was modelled based on different technology types. PCF financing costs are modelled up to connection. The benefits were calculated on the primary drivers of time taken to connect, and the average proportion of DEVEX that can be spent closer to connection. Ultimately this leads to DEVEX savings. The NESO SME highlighted that all of the benefits are relative to an unhealthy queue scenario. Some Workgroup Members questioned whether this inflated the benefits exhibited within the analysis.

Workgroup Members also stated that they were somewhat sceptical about the analysis, in particular regarding the assumptions made therein, particularly regarding the potential for projects to accelerate their connection dates and the realistic impact of the PCF on developer costs. There was a consensus that the analysis should have included a broader range of potential costs, including the impact on overall cost of capital and risk-adjusted hurdle rates.

A Workgroup Member stated that they had concerns about the definition of "consumer" in the analysis. He argued that the assumption that savings or costs would be passed through to end consumers might not be realistic, given how electricity tariffs are currently set. The Proposer stated that any savings realised by the developer would be expected to be passed through to the consumer. The Workgroup Member fundamentally disagreed with this, saying that development costs weren't intrinsically linked to how the price of electricity is set. The Proposer said that a key part of the analysis was the assumption that savings and costs are passed through to the end consumer. Some Workgroup Members stated that this was a risky assumption to make.

Some Workgroup Members suggested that the credibility of the timescales presented could be viewed as questionable. Workgroup Members suggested that the additional acceleration that may be provided by the PCF may be negligible compared to the reforms put forward by CMP434 and CMP435, and challenged the timescales presented by the NESO SME. The NESO SME considered this point but also highlighted that the figures presented were merely ranges of what could be possible. Several participants requested

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including a column for "0 years" in the analysis to show scenarios where no acceleration is possible. This would provide a more comprehensive view of the potential outcomes

The analysis was further scrutinised by Workgroup Members in regard to the assumptions used to calculate WACC. A Workgroup Member questioned the assumptions around what the financing rate used for the analysis was and the definition of DEVEX costs. The Member suggested that the analysis might be overly optimistic in its assumptions and requested clarification on the specific financing rates used for different technologies.

A DNO Workgroup Member suggested that they understood the methodology but stated that there may be a benefit to longer term projects from the PCF, whereby they may see acceleration from the introduction of the PCF from the removal of project placed ahead of them in the queue who are unviable. This was noted by the NESO SME.

Workgroup Members entered into discussions around whether the analysis should be included within the Workgroup report. Whilst the Workgroup noted the limitation of the analysis, there was general consensus that it should be included for completeness, noting the concerns raised by Workgroup Members.

Alternative Customer Benefit Scenarios

The NESO SME also presented further analysis on three different scenarios to account for varying PCF financing rates and their impact on consumer benefits. These scenarios were developed to address feedback from the Workgroup and to provide a range of potential outcomes. Please see below figure:

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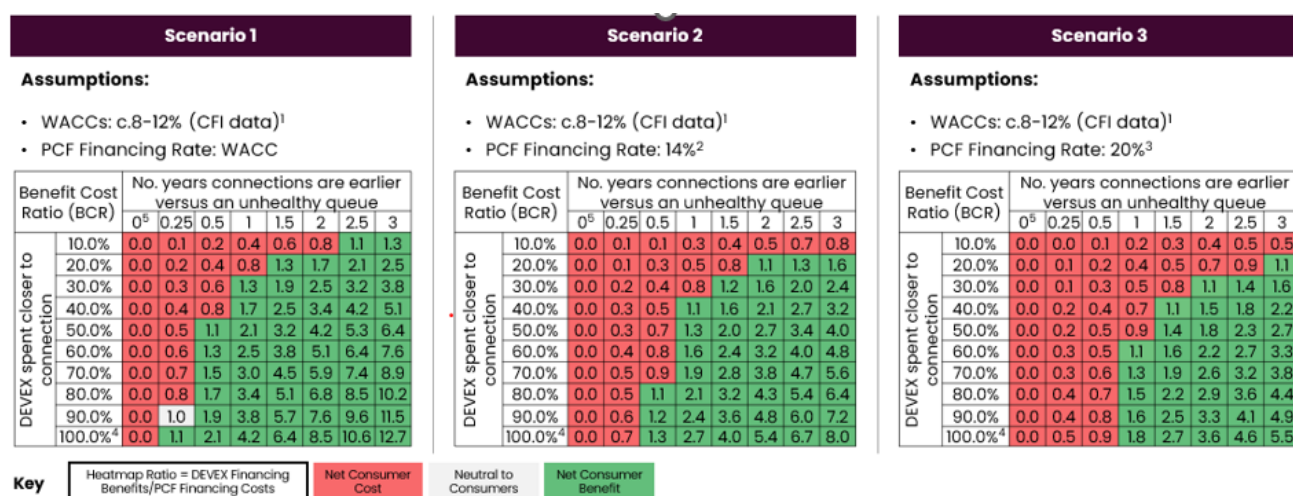


Figure 22³⁷: Alternative Customer benefit scenarios

Various Workgroup Members highlighted similar concerns raised to the to those raised on the initial analysis, including concerns about how realistic the benefits presented in the scenarios are. They questioned whether it is feasible to bring DEVEX costs closer to the connection date and whether the assumed benefits are realistic. They also questioned how practicable it was for a developer to map specific projects on the above scenarios on the basis of differing costs of financing the PCF. A Workgroup Member also questioned the impact that accelerating connection dates might increase developer risk, as it could require over-committing to certain aspects of the project.

The Proposer recognised that there may be some limitations to the qualitative and quantitative analysis put forwards and recognised the feedback provided by Workgroup Members. The Chair accepted the feedback from a majority Workgroup Members that the that the proposal relies on the qualitative benefits highlighted, as opposed the data presented within their qualitative analysis.

³⁷ Figure 22 notes

- Overall WACCs have been derived by technology (Solar: 10.7%, Onshore Wind 10.7%, Offshore Wind: 8.5%, Battery: 12.1%) from CFI responses; note that the Onshore Wind value is based on best available from a small sample size
- To be conservative in benefits estimates, NESO have assumed a rate of 14% for Scenario 2 based on the upper bound of CFI responses
- 20% is the rate Workgroup requested as the 'upper bound' for the PCF financing rate analysis provided by NESO
- Higher proportions of total system DEVEX spent closer to connection (inc. 100%) is more likely the less amount of time that DEVEX is spent closer to connection
- '0 years' column added as requested by Workgroup. Given that connection dates are unchanged in this scenario, the DEVEX financing benefits are 0.

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A Workgroup Member asked the Proposer to clarify where on the table they expected the outcome to fall. The SME suggested that it was more likely that more of the DEVEX could be shifted a short amount of time. However, the Proposer was ultimately unable to provide any clear answer, simply reiterating that it was a range of possible scenarios. But not providing any indication of associated probability.

Another Workgroup Member also commented that they already take a phased DEVEX financing approach to minimise financing costs associated with DEVEX, implying that the analysis may be overestimating the benefits associated with “moving” DEVEX closer to connection.

NB - The Proposer further recognised that they were unable to demonstrate any consumer benefit or costs from the quantitative analysis presented and stated that their belief that this proposal was beneficial for consumers was based on the previous qualitative information provided.

xix) Clarity on Updated NESO Positions in regard to the Original solution

Key: Changes or clarifications to the proposed PCF design since Workgroup 1		WACM 1 - Innova	WACM 2 – Scottish Power Renewables
Intent	The Progression Commitment Fee (PCF) is intended to provide an incentive for: <ul style="list-style-type: none"> Developers of projects that have become unviable to proactively exit the queue in a timely manner. Developers who are no longer committed to progressing viable projects to sell them to a committed developer, in a timely manner. 		
Activation	<ul style="list-style-type: none"> Once implemented, the PCF will initially be dormant. It will remain dormant unless a “trigger metric” which is indicative of the health of the connections queue exceeds a defined threshold of 6.5GW (“trigger threshold”). The “trigger metric” is the total cumulative MW terminated from the Gate 2 queue as a result of a milestone termination for failing to meet M1. (Terminated projects that are replaced will now also contribute to the metric) At the point where the threshold is met, the PCF may be activated, subject to decisions by NESO and Ofgem 		
Value	<ul style="list-style-type: none"> Once activated, the PCF applicable to a project will have an initial value of £2,500/MW. A project’s PCF will then increase at a rate of £2,500/MW at 6 monthly intervals up to a maximum cap of £10,000/MW Projects will be liable for the full value of their PCF upon termination of the project (or the appropriate portion of the PCF upon reduction of capacity) prior to successfully demonstrating achievement of Milestone 1. 	<ul style="list-style-type: none"> Once Activated there will be a 6-month period where the PCF is £0/MW. Following this, PCF value will be 10% of that proposed in the original (£250/MW increasing to £1,000/MW) 	
Scope	<ul style="list-style-type: none"> If the PCF is activated, it will be 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. However, projects where the M1 date is less than six months from the latter of either (i) the PCF activation date or (ii) the date of Gate 2 Offer counter-signature by NESO, will have PCF of £0. 		
Collection	<ul style="list-style-type: none"> If the PCF is activated, developers of projects between Gate 2 and Milestone 1 will be required to post a security against the PCF, the “Progression Commitment Fee Security” (“PCFS”). The PCFS must remain in place until developers successfully demonstrate that the project has achieved Milestone 1. The PCFS will be embedded within the existing security ‘cancellation charges’ outlined in CUSC Section 15 and therefore will follow the existing processes and timings After achieving Milestone 1, developers will no longer be subject to the PCF if they terminate and there will no longer be a requirement to secure against the PCF. 		<ul style="list-style-type: none"> A discount of 75% will be applied to the PCF value if the customer self-terminates at least 90 days prior to the M1 date.

Figure 23: Finalised Original proposal and WACMs

The Proposer, during post the Workgroup consultation discussions, presented the above table to Workgroup Members, detailing their final positions on the Original solution. This is set out in the solution section of this report. This table also documents the key differences between the Original, WACM1 and WACM2 (please see below section on consideration of other options).

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Consideration of other options

Prior to the Workgroup Consultation, no official alternatives were raised by Workgroup Members. However, various potential options which Workgroup Members were considering were raised with Industry to ascertain feedback on their feasibility. The Workgroup Members considered the feedback given by industry on this matter and used this feedback to develop Alternative Requests which are highlighted in the below section. For the ease of reading this document, and to avoid confusion, the potential alternatives which the Workgroup sought feedback on are included in the Workgroup Consultation³⁸ at pages 42-47. However, this report will concentrate only on the official Alternative Requests raised by Workgroup Members following the Workgroup Consultation.

Alternative Requests

Following the Workgroup Consultation a number of Alternative Requests were formally raised, by Workgroup Members. These Requests set out the case as to why the party or Workgroup Member who submitted them wished to amend parts of the Original proposal (and outlined what their amendments were). The Workgroup reviewed all of these Requests and the table below provides an overview of each Request (and who raised it) along with its status as to whether it was (a) withdrawn (by the party / Workgroup Member who raised the Request) or (b) was voted upon by the Workgroup with those that received a majority support (of those Workgroup Members eligible to vote) proceeding forward as a formal 'WACM'³⁹ whilst those that failed to obtain majority support did not proceed forward (and thus did not become a WACM).

A total of 9 Alternative Requests were raised by the Workgroup. They are detailed in the below table and are available in full at **Annex 07** of this report.

³⁸ [CMP448 Workgroup Consultation](#)

³⁹ Workgroup Alternative CUSC Modification", which is defined, in Section 11 of the CUSC, as "an alternative modification to the CUSC Modification proposal developed by the Workgroup under the Workgroup terms of reference (either as a result of a Workgroup Consultation or otherwise) and which is believed by a majority of the Members of the Workgroup or by the chairperson of the Workgroup to better facilitate the Applicable CUSC Objectives than the CUSC Modification proposal or the current version of the CUSC

Alternative Request Proposer	How Alternative Differs from the Original	Alternative Number for Vote	Outcome of Workgroup vote
ENWL (1)	PCF without Activation Metric	1	Did not receive majority support
Innova	Reduces PCF value by a factor of 10	2	Received majority Support - WACM1
Arven	Exclusion of Offshore Projects	3	Did not receive majority support
Lightsource BP	"Simplified" GB Wide PCF"	4	Did not receive majority support
Scottish Power Renewables	Self Termination PCF Discount	5	Received majority Support - WACM2
ENWL (2)	Embedded Exemption from PCF	6	Did not receive majority support
NGED	PCF does not apply to projects within 18 months from the acceptance of a Gate 2 Offer	7	Did not receive majority support
Island Green Power	Remove any reference to Queue Health, Activation Metric and Activation Threshold	8	Did not receive majority support
EDF Renewables	Introducing a maximum cap on PCF liability to prevent impact on large-scale projects such as offshore wind farms.	9	Did not receive majority support

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Alternative Request 1 – ENWL – PCF without Activation Metric

Alternative Request 1, raised by Electricity North West Limited, sought to remove the Activation Mechanism so that it would apply to all parties accepting a Gate 2 Offer. The intention behind this was to incentivise only the most viable projects to entering the connection queue, therefore helping to meet CP30 targets. This alternative also sought to give a six-month grace period after acceptance of a Gate 2 offer and therefore gave a no cost option for all projects. Following this grace period, the PCF would increase in six-month intervals at the same rate as the Original solution.

Voting Outcome – The Workgroup voted by majority that this alternative request was not better than the Original.

Alternative Request 2 – Innova – Reduce PCF by a Factor of 10, with an initial 6-month grace period

Alternative Request 2 sought to reduce the magnitude of the PCF by a factor of 10. A project's PCF will increase at a rate of £250/MW at 6 monthly intervals up to a maximum cap of £1,000/MW (after 18 to 24 months). This alternative sought to introduce an initial PCF period where the PCF is £0/MW. This alternative would not change the "Activation metric" or "Activation threshold".

*Voting Outcome – The Workgroup voted by majority that Alternative Request 2 may be better than the Original proposal. Alternative Request 2 therefore became **Workgroup Alternative CUSC Modification 1 (WACM1)** and will be referred to as such hereafter in this report.*

Alternative Request 3 – Arven Wind – Exclusion of Offshore Projects

Alternative Request 3 sought to exclude Offshore Projects (as defined by CMP435) from the PCF exempts Offshore Projects to avoid discrimination against technology types which have long lead times to enter the planning system. The PCF would not apply to these technologies, and they would also be removed from the calculation of the Activation Metric.

Voting Outcome – The Workgroup voted by majority that this alternative request was not better than the Original.

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Alternative Request 4 – Lightsource BP – Simplified GB Wide PCF

Alternative Request 4 sought to design the PCF to align more with the solution originally suggested by NESO in October 2024 but with some adjustments. The biggest of these adjustments is a mechanism to use the PCF incentivise ‘good behaviour’ and for unviable projects to leave the queue quickly and voluntarily. This solution included a flat £10k/MW PCF applied across GB, with no Activation threshold, no Activation metric and no Activation governance as the PCF will simply be applied to all Gate 2 projects at the point of contract acceptance after the implementation date, with PCF reductions of 50% or 90% based on self-termination, and a 6 month grace period.

Voting Outcome – The Workgroup voted by majority that this alternative request was not better than the Original.

Alternative Request 5 – Scottish Power Renewables – Simplified GB Wide PCF

Alternative Request 5 would introduce a discount of 75% if the customer self-terminates, as opposed to being terminated by NESO upon failing to meet Milestone 1. It also sought to amend timescales for the PCF to be applied to 90 days prior to M1.

*Voting Outcome – The Workgroup voted by majority that Alternative Request 5 may be better than the Original proposal. Alternative Request 5 therefore became **Workgroup Alternative CUSC Modification 2 (WACM2)** and will be referred to as such in this report.*

At a latter stage of the Workgroup, some Workgroup Members expressed concern about the practical mechanism for developers to reduce their capacity and the implications for the PCF under this WACM. They questioned whether the point at which the discount to the PCF would be applicable would be from the notification of the termination or reduction by the developer or would require the full process to be completed. There was specific concern about the reduction process as a Modification Application (Mod App) would need to be completed, and this could impact the timing and calculation of the PCF. The Proposer of WACM2 suggested that the intention was for the 90 days to apply to the date which developers notify their intent to reduce TEC, which would then be followed by a Mod App process.

The Proposer confirmed that capacity reduction would need to be done via a Mod App, which is not gated and can be submitted at any time, typically taking three months to process (once the Mod App has been ‘clock started’). This clarification addressed concerns about the timing and potential delays in the Mod App process. Workgroup

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Members expressed concerns about the timing and potential delays in the Mod App process, which could affect the ability for the discount to apply, highlighting the need for clarity on whether the PCF would be based on the original or reduced capacity if the Mod App process was not completed before M1.

This Conversation led to the WACM2 solution being refined. WACM2 is identical to the Original solution, other than the introduction of the discount in what is owed to NESO/the relevant DNO in the event of a project self-terminating before submitting planning. Developers would still have to fund and provide security to the full PCF value as outlined in the Original solution. The PCF would be payable in full in any case other than the one described as follows. Only 25% of the applicable value would have to be paid if the User notified of the intent to self-terminate or reduce capacity (via the initiation of the relevant process), at least 90 days prior to the Milestone 1 date, providing that application to reduce is not withdrawn.

NB – The discount would also apply the portion of the PCF that is currently payable for capacity reductions in the Original solution providing the relevant process is started at least 90 days prior to the Milestone 1 date.

Alternative Request 6 – ENWL – Embedded Exemption from the PCF

Alternative Request 6 sought to introduce exempt embedded generation from the scope of the PCF to simplify the process and recognise the differences between distribution and transmission projects.

Voting Outcome – The Workgroup voted by majority that this alternative request was not better than the Original.

Alternative Request 7 – National Grid Electricity Distribution – Embedded Exemption from the PCF

Alternative Request 7 sought to remove all projects, transmission or distribution connected from the scope of the PCF where the contracted deadline for M1 (be this with the DNO, TO or NESO) is within 18 months from the acceptance of a Gate 2 Offer.

Voting Outcome – The Workgroup voted by majority that this alternative request was not better than the Original.

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Alternative Request 8 – Island Green Power

Alternative Request 8 sought to remove any reference to ‘Queue Health’, ‘Activation Metric’ and ‘Activation Threshold’. Instead, with this alternative, the solution will apply the following:

- i) The PCF is activated once a project is through Gate 2 and when the project is 5 years from its M1 milestone date. In cases where the M1 date is less than 5 years the PCF is activated from acceptance of the Gate 2 offer.
- ii) PCFS will then be posted at the next Section 15 security date.
- iii) PCFS first payment will always starts at £100/MW (Start value to be agreed with Workgroup) no matter how long to the M1 milestone date.
- iv) The PCFS increases to the next value in line with the timing of Section 15 security payments.
- v) The Total PCF value is capped at £10,000/MW.
- vi) Example Steps, to be agreed with the Workgroup; £100, £200, £400, £800, £1,600, £3,200, £6,400 and 10,000 (per MW)
- vii) There would be a 50% discount if a Developer self-selects out of the connection queue more than 6 months before the project M1 milestone date to reward good behaviour.
- viii) The PCFS that is posted is net of securities

Voting Outcome – The Workgroup voted by majority that this alternative request was not better than the Original.

Alternative Request 9 – EDF Renewables

Alternative Request 9 sought to introduce a maximum cap on Progression Commitment Fee liability to prevent punitive impact on large-scale projects such as offshore wind farms with significantly higher development expenditure and security requirements within the Progression Commitment Fee window.

Voting Outcome – The Workgroup voted by majority that this alternative request was not better than the Original.

Workgroup Consultation Summary

The Workgroup held their Workgroup Consultation between 24 March – 7 April 2025 and received 35 non-confidential responses and 2 confidential responses which were

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provided directly to the Authority. The full non-confidential responses and a summary of these non-confidential responses can be found **Annex 06**.

Of the 35 Non-Confidential Responses, the majority were from Generator/developer, and Generators with a secondary interest; e.g storage/demand. However, there were a number of responses from Distribution Network Operators, Transmission Network Owners, so as a result the Workgroup feels that, overall, the responses cover a broad range of industry parties that will be impacted in differing ways by this modification (if it were to be approved).

When the overall sentiment of these 35 responses were analysed, an equal split was exhibited between those who supported the modification (17) and those who exhibited reluctance or negative sentiment towards the proposal (17). One respondent was neutral against the proposal.

Against the CUSC Non-Charging Objectives, of the non-confidential responses received, 19 of these responses stated that the proposal was positive when compared to the baseline CUSC against at least one CUSC objective, whereas 15 stated that the proposal was negative against all CUSC standard objectives. 1 response was neutral against all objectives.

Objective	Positive	Negative	Neutral
A	13	17	5
B	9	19	6
C	3	19	13
D	11	18	6

Figure 24: Responses view of the Original proposal against CUSC Non-Charging Objectives.

NB – The general sentiment of the non-confidential responses to the Workgroup Consultation have been highlighted in the Workgroup Discussions area of this report,

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where more detail of the Workgroup's consideration is highlighted. However, some key themes which came out of the consultation responses were:

- A majority of respondents felt that the implementation approach highlighted by the Proposer was correct. In some instances where the respondent did not agree, feedback was that the modification should not be implemented at all, as opposed to specific implementation method highlighted in the Original proposal. Some respondents used this opportunity to feedback that they did not believe the specified defect would manifest itself and may be managed better by the TMO4+ suite of modifications, which were approved by Ofgem on 15th April 2025 (just over a week after the Workgroup consultation closed).
- Two alternative requests were raised as part of the Workgroup Consultation process and subsequently developed into official Alternative Requests. However, it is worth noting that respondents provided feedback on the ideas which Workgroup Members had for potential alternatives (as set out in the Workgroup consultation document). This was instrumental in helping Workgroup Members to develop official Alternatives Requests which were developed after the Workgroup consultation.

Feedback received via the Workgroup consultation often varied around the same point. For example, impacts on the financial viability of smaller developers were highlighted by various respondents as detrimental. However, respondents also highlighted detrimental impacts on larger projects with longer lead times would be prevalent also. This was representative of the broad range of industry participant who responded to the consultation. Please see the below table for a view on such instances whereby respondents disagreed on elements of the design contained within the Original solution, but for different reason

PCF Design Element	'Positive' Respondents	'Negative' Respondents	Main Common Reasons Underpinning 'Negative' Responses ¹	# 'Negative' Respondents ²
Q6: Fee Duration	54%	40%	Duration is too long: Disproportionate impact on long lead time projects	4/7
			Duration is too short: Insufficient incentive over full project cycle	2/7
			Other: Impractical for Embedded Generation and disproportionate impact on small developers	2/7
Q7: Profile & Timing	40%	46%	Incentive is too strong: High burden on large projects and may encourage healthy project exits	4/12
			Incentive is not strong enough: Insufficient incentive for correct projects to exit queue	3/12
			Other: Implementation complexity and industry uncertainty	2/12
Q8: Trigger Metric	33%	54%	Replacements are not required: Complexity issues and short timelines to source replacements	4/17
			No technology specific metrics: Issues with one metric being applied across all technologies	4/17
			Cumulative MW measure is insufficient: Doesn't account for the number of projects exiting	3/17
Q9: Trigger Threshold	33%	50%	Threshold is too low: High burden on long lead times and small projects. Sensitive to high MW exits	7/13
			Threshold is arbitrary: Limited evidence and speculative value	5/13
			Other: Doesn't account for regional and technological factors	3/13
Q10: Activation Governance	51%	29%	Insufficient governance: Unclear scenarios and too little involvement of OFGEM and industry	4/7
			Other: limited activation flexibility and too short a notice period	2/7
Q11: Value	37%	51%	PCF value is too high: Disproportionate impacts and high burdens on industry and consumers	9/15
			PCF value is too low: Insufficient incentive for developers	3/15
			Other: Legal risks and inappropriate methodology used to calculate value	2/15

Figure 25 – Feedback received on design themes

The responses to the Workgroup consultation indicated that there was a strong sentiment that there were issues with the proposed approach which was used to formulate the Original proposal. Reasoning included issues with financing assumptions, nuances around technology types and impacts of developers of different sizes. This was explored further by the Workgroup as a result, with conversations documented in section vii) of this report.

- A near equal number of responses agreed and disagreed with the outlined scope of the CMP448 Original. Those that agreed highlighted the alignment with pre-existing user commitments as a key reasoning. Those that disagreed highlighted concerns around CP30 Alignment, impacts on both smaller and larger developers, and the lack of data around the proposed defect.
- A majority of responses expressed support for the approach to exclude demand projects due to these projects already facing liabilities via Final Sums methodology. Those who disagreed highlighted concerns that demand projects may benefit disproportionately from this approach.
- A majority of respondents did not believe that the proposal considers the interface with embedded and distribution connected projects adequately. Some respondents believe that some form of exclusion should apply to these projects as the perceived problem lies mainly at transmission level. Concerns were also raised around the uncertainty the PCF places on these projects.

A majority of respondents agreed with the proposed definition of 'Queue Health', albeit some believed the concept to be somewhat arbitrary or superfluous.

Legal text

The proposed legal text for this change can be found in **Annex 08**. This includes legal text for the Original solution and WACMs.

	Section 11	Section 15	Exhibit MM1	Exhibit MM2
Original	New definitions added	Updates User commitment methodology	Updates Cancellation charge statement	Updates Cancellation charge secured amount statement
WACM1	As per the Original	Updates User commitment methodology	As per the Original	As per the Original

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WACM2	As per the Original	Updates User commitment methodology	As per the Original	As per the Original
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What is the solution?

Proposer's solution

Background

On 11 October 2024, NESO took an initial suggestion for a “financial instrument” CUSC modification to the Transmission Charging Methodologies Forum (TCMF).⁴⁰ NESO received much useful and constructive feedback from stakeholders during the forum and following it.

On 05 November 2024 NESO then issued a Call for Input⁴¹ to take on board further stakeholder views prior to raising this CMP448 modification. 132 responses were received to the Call for Input and the feedback has been used to help refine this CMP448 proposal. Responses to the Call for Input highlighted the following common themes and issues that NESO have looked to address:

- Although an additional financial requirement would likely encourage the timely self-removal of unviable projects from the connections queue, it would raise the hurdle to entry for all projects, including those that are viable and committed to development. To help address this, NESO have amended the proposed solution so that any additional financial requirement will remain dormant providing the Gate 2 to Milestone 1 queue remains in good health and will only be activated if and when required. This will ensure that the impact of the proposal is only realised where there is an issue with queue health
- The proposed value was too high and could represent a barrier to entry for viable projects. This has been addressed by lowering the maximum potential liability per MW that a project could be exposed to upon termination or reduction in capacity.
- The planning process presented too high a risk for developers to secure large sums at the early stages of project development. Further, respondents (to the November Call for Input) were of the view that achieving User Progression Milestone 2: Secured

⁴⁰ The slide pack presented at TCMF: [slidepack](#)

⁴¹ [Financial Instrument Call for Input Document](#)

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Statutory Consents and Planning Permission, is out of a developer's control to a certain extent.

NESO have sought to address this by amending the applicable period to only the pre-planning stage. An upfront liability created a perverse incentive for projects in the queue to remain in it rather than leave. This feedback has been addressed in this proposal by changing the profile of the fee from a flat rate, to one that is initially set at a lower amount and then increases every six months thereafter. In addition, NESO's proposal is now for the fee to only apply if and when it is activated in accordance with a defined Activation event.

Solution Overview

If approved, this proposal will introduce a new fee payable on termination or reduction in a projects' capacity, to be known as the "Progression Commitment Fee" (PCF). The PCF will initially be dormant, and it will remain dormant unless a defined Activation is met, at which point it may be activated, subject to decisions to proceed by NESO and Ofgem. If the PCF is activated, it will only apply to those projects that hold TEC, DC⁴² or IC and have accepted a Gate 2 Offer and not passed User Progression Milestone 1. However, for projects where the M1 date is less than six months following either the PCF activation date or the date of the Gate 2 Offer counter-signature by NESO, the PCF will be £0 should they terminate or reduce capacity.

If activated, the PCF applicable to a project will have an initial value of £2,500/MW. The value of a project's PCF will then increase at a rate of £2,500/MW at intervals aligned to the existing process for posting Cancellation Charge securities up to a maximum of £10,000/MW for any individual project (after between 12 and 24 months). Projects will be liable for the full value of their PCF upon termination of the project e.g. via self-termination or Milestone termination (where a project fails to meet a Milestone) or the appropriate portion of the PCF upon reduction of the contracted MW capacity, prior to the project successfully demonstrating achievement of Milestone 1.

If the PCF is activated, developers of projects between Gate 2 Offer acceptance and Milestone 1 will be required to post a security for the full value of the PCF, the "Progression Commitment Fee Security" (PCFS). The PCFS must remain in place until the developer successfully demonstrates that the project has achieved Milestone 1. After achieving

⁴² The PCF will be applied to projects with Developer Capacity through the agreements between NESO and the DNO or transmission connected IDNO.

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Milestone 1, developers will no longer be subject to the PCF if they terminate or reduce the contracted MW capacity level and there will no longer be a requirement to secure against the PCF. The PCFS held for a project will be released following that project meeting its milestone M1.

For the avoidance of doubt, those projects where the M1 date is less than six months following the PCF activation date or the date of Gate 2 Offer acceptance (whichever is the latter); and therefore, have an applicable PCF value of £0, will also not be required to post any PCFS.

Activation of the PCF

Upon implementation of CMP448 modification the PCF will initially be dormant, during which period there is no associated liability for a project or any need for a project to post security. It will remain dormant unless a metric, which is indicative of the health of the connections queue; i.e. those projects that have accepted a Gate 2 Offer; exceeds a defined threshold. The metric will measure the cumulative project MWs that are “terminated”⁴³ from the Gate 2 connections queue by the respective Network Owner/Operator counterparty as a result of Milestone termination (where a project fails to meet a Milestone) at Milestone 1 (planning application submission).

This metric will be referred to as the “Activation Metric”⁴⁴.

For the avoidance of doubt, the MWs associated with those projects described above with less than six months to their M1 milestone date (and are therefore have an applicable PCF of £0) which terminate will still contribute towards the Activation Metric if they are terminated as a result of a milestone termination at M1. However, the MWs associated with any project self-terminating before reaching Milestone 1 will not count towards the Activation Metric.

The Activation Metric will be measured from the date of implementation (of CMP448) to 31 December 2030 inclusive, the “initial metric period” and then for each five-year period thereafter⁴⁵. For the avoidance of doubt, any terminated MW capacity associated with one five-year period will not, for the purposes of the Activation Metric or Activation Threshold, be carried over to the next five-year period. NESO will measure the Activation Metric at six monthly intervals, the “measurement point” and publish this data.

⁴³ Project terminations will be regarded as such in line with existing arrangements and guidance

⁴⁴ At Consultation stage, this was referred to as “Trigger Metric”. This was changed following discussions with Workgroup.

⁴⁵ So the next five-year period will run from 1st January 2031 to 31st December 2035, and so on.

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The “Activation Threshold” will be set at a cumulative total of 6,500MW for the initial metric period, which is the approximate equivalent of 5% of the additional MW capacity (that is capacity not already installed) that is required to be connected before the end of 2030 in order to meet CP30 targets. If the PCF is not activated by the end of the initial metric period, the Activation Threshold will be reviewed by NESO ahead of each subsequent five-year period.

If at any measurement point, the published Activation Metric is greater than 6,500MW, the Activation Threshold will have been deemed to be met. The Activation Threshold is based on a cumulative MW total. Therefore, once it has been met, there will be no opportunity for the Activation Metric to fall back below this threshold at future measurement points in that five-year period.

If the Activation Threshold is deemed to have been met at any measurement point, NESO will make the decision to either (i) activate or (ii) not activate the PCF. Within one month of the Activation Threshold being published, NESO will notify Ofgem⁴⁶ of its decision to activate, or not to activate the PCF. It is proposed that Ofgem should then have power to override⁴⁷ NESO’s decision (to activate /not activate) within two months of being notified. For the avoidance of doubt, there will be no ability for either NESO or Ofgem to activate the PCF unless the Activation Threshold is first met.

User Liability Post PCF Activation

If the Activation Threshold is met and the PCF is activated, Users will be provided a notice of at least three months from the date of Ofgem’s decision, after which the PCF will start at £2,500/MW. If a User removes their project from the connections queue within this three-month period, they will not be liable for the PCF upon termination. Similarly, if a User reduces their project MW capacity within this three-month period, they will not be liable to pay the applicable PCF for the amount of MW reduced⁴⁸. If a User wishes for their project to remain in the connections queue beyond this period, they will be required to post the PCFS for the full value of the PCF.

For the avoidance of doubt, even if a User does not have to pay any PCF (including those projects where the PCF is £0 because there is less than 6 months to M1), they will still be liable for the applicable cancellation charge as per the current CUSC arrangements.

⁴⁶ And stakeholders.

⁴⁷ Not activate if NESO decided to activate or to activate if NESO decides not to activate.

⁴⁸ The Proposer has agreed to confirm if the date used will be the date the user applies to reduce or the date the reduction is approved

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If the PCF is activated, for projects already in scope at the time of activation, the PCF shall increase at a rate of £2,500/MW every six months, aligned with the existing process for the posting of Cancellation Charge Securities, up to a maximum cap of £10,000/MW. Any projects that have not achieved Milestone 1 and have accepted the Gate 2 Offer post activation of the PCF will be liable for a PCF equal to £2,500/MW at the time of their project(s) Gate 2 Offer acceptance, and this will then increase in line with the six-monthly periods described above. The PCF for a project that accepts a Gate 2 Offer post activation of the PCF may therefore rise to £5,000/MW at a point in time between zero and six months after the Gate 2 Offer acceptance.⁴⁹ Subsequent increases will then be every six months. Please see the scenarios outlined in **Annex 04** for further examples.

Developers will be required to increase their PCFS in line with the PCF that they would be invoiced for upon termination. They will need to ensure that the appropriate PCFS remains in place until they successfully demonstrate that their project has achieved Milestone 1. After Milestone 1 the PCF will no longer be applicable. To ensure consistency across security requirements, it is intended to apply the provisions of security currently outlined in CUSC *Section 15: User Commitment Part 3, Para. 4, 5 & 6* to the PCFS.

In the event that a project exits the Gate 2 connections queue before successfully demonstrating that it has achieved Milestone 1, the project developer will be required to pay the PCF. If a project reduces its MW capacity during the same period, it will be invoiced for a pro-rated PCF based on the MW capacity reduction. If a developer does not pay the PCF, NESO will draw upon the PCFS.

If a developer does not pay the PCF that its project is liable for and if the PCFS is less than the PCF, NESO (or the DNO, if embedded) will draw upon the entire security. Any difference between the total liability due and security held may be pursued by NESO (or the DNO, if embedded).

Any increase in the cash position of NESO as a result of the PCF shall be redistributed to network Users via Transmission Network Use of System (TNUoS) charges.

Capacity Reduction

⁴⁹ Dates that securities are required to be posted will be the same for all projects. Therefore, if a project accepts their Gate 2 Offer after the PCF has already been activated, it will be required to secure against a PCF of £2,500 upon Offer acceptance, which would then increase to £5,000 on the next date that securities are collected. This would be up to six months after Gate 2 Offer acceptance, but the exact timing would depend on when the project accepts the Gate 2 Offer relative to the date that securities are collected.

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If a developer reduces its project TEC, or DC or IC (in the Gate 2 Offer acceptance) down to a revised TEC (RTEC), revised DC (RDC) or revised IC (RIC), then they will be liable to pay a portion of the applicable PCF proportionate to the reduction in MW capacity as follows:

$$(\text{applicable PCF} \times (\text{TEC, DC, or IC})) - (\text{applicable PCF} \times (\text{RTEC, RDC or RIC}))$$

Once the developer has paid the amount that it is liable for, the PCF will be recalculated in line with its revised TEC, DC or IC.

For embedded generators that are in scope of the proposal, any PCF that is required to be paid as a result of a capacity reduction will be paid to the relevant DNO and will then be passed through to NESO. Similarly, any remaining security will continue to be held with the relevant DNO and the relevant DNO will continue to hold a corresponding security with NESO. This is aligned with the existing Cancellation Charge and Cancellation Charge Security arrangements.

Examples depicting this are available in **Annex 05** of this report.

What is the impact of this change?

Proposer's assessment against CUSC Non-Charging Objectives	
Relevant Objective	Identified impact
(i) The efficient discharge by the Licensee of the obligations imposed on it by the Act and by this licence*;	<p>Positive</p> <p>The proposal introduces a mechanism that will accelerate the connection of readier and/or more viable projects facilitating progress towards net zero targets.</p> <p>Currently, committed developers of viable projects may be waiting too long to connect as a result of non-viable projects ahead of them in the connection queue, hindering progress to deliver net zero.</p> <p>This proposal allows NESO to quickly activate a PCF when evidence suggests that it is required. This will enable quicker connection of viable projects, a more efficient and coordinated network design and act as a safeguard to ensure transmission works can be delivered more efficiently.</p>
(ii) Facilitating effective competition in the generation and supply of electricity, and (so far as	Positive

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consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity;	Currently viable projects may be held up by less viable projects that are ahead of them in the connections queue. Incentivising the removal of these blockers will aid quicker connection for viable projects. Competition in electricity generation could increase at a quicker rate and facilitate delivery of net zero in a more cost-efficient way.
(iii) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency **; and	Neutral
(iv) Promoting efficiency in the implementation and administration of the CUSC arrangements.	Positive The proposal will accelerate the removal of unviable projects from the connections queue reducing the size and increasing the health of the whole queue. This will reduce the inefficiency associated with administering the applications of unviable projects.

* See Electricity System Operator Licence

**The Electricity Regulation referred to in objective (iii) is Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast) as it has effect immediately before IP completion day as read with the modifications set out in the SI 2020/1006.

Proposer's assessment of the impact of the modification on the stakeholder / consumer benefit categories	
Stakeholder / consumer benefit categories	Identified impact
Improved safety and reliability of the system	Positive The proposal will facilitate quicker connection of projects in the areas they are needed. We expect this to bring benefits to consumers, including increased security of supply.
Lower bills than would otherwise be the case	Positive The proposal will facilitate earlier connection dates for projects than may otherwise be the case leading to cost savings for developers and greater efficiencies in the planning and connections processes. These benefits will ultimately result in a reduction in end consumer bills.
Benefits for society as a whole	Positive

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	Societal benefits will be realised by the proposal by way of a reduction in consumer bills and facilitating accelerated progress towards decarbonisation targets.
Reduced environmental damage	Positive Currently viable projects may be delayed in connecting due to less viable projects taking up space in the connections queue. This proposal will facilitate the earlier removal of less viable projects from the queue and the quicker connection for viable projects than would otherwise be the case. This will be vital to deliver net zero and to help the government achieve CP30 targets.
Improved quality of service	Positive This proposal will ensure that resources are allocated progressing the most viable projects, facilitating faster connection times and ultimately an improved quality of service.

Workgroup Vote

The Workgroup met on 30 May 2025 to carry out their Workgroup Vote. The full Workgroup Vote can be found in **Annex 09**. The table below provides a summary of the Workgroup Members view on the best option to implement this change.

For reference the Applicable CUSC (non-charging) Objectives are:

- i. *The efficient discharge by the Licensee of the obligations imposed on it by the Act and by this licence*;*
- 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;*
- iii. *Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency **; and*
- iv. *Promoting efficiency in the implementation and administration of the CUSC arrangements.*

** See Electricity System Operator Licence*

***The Electricity Regulation referred to in objective (iii) is Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast) as it has effect immediately before IP completion day as read with the modifications set out in the SI 2020/1006.*

The Workgroup did not reach a consensus. An equal number (8/23) of Workgroup Members voted for the Original and the Baseline as being the best option.

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Option	Number of voters that voted this option as better than the Baseline
Original	8
WACM1	3
WACM2	4

Code Administrator Consultation Summary

The Code Administrator Consultation was issued on the 10 June 2025 closed on 24 June 2025 and received 27 non-confidential responses and 2 confidential responses, including 2 late responses. A summary of the responses can be found in the table below, and the full responses can be found in **Annex 14**.

Code Administrator Consultation summary						
Question						
Do you believe that the CMP448 Original Proposal, WACM1 or WACM2 better facilitates the CUSC Applicable Objectives?	The consultation received mixed levels of support against each of the solutions regarding the Applicable CUSC objectives. Of the 26 responses received, 14 respondents stated that none of the three solutions better facilitated the Applicable CUSC objectives. A breakdown of the responses which suggested a solution better facilitated the Applicable CUSC objectives can be seen below:					
		None	i)	ii)	iii)	iv)
	Original	14	12	10	2	10
	WACM1	19	7	7	0	4
	WACM2	16	8	6	0	5

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	Respondents were also asked to indicate their preferred solution. The results are listed in the below table:	
	Solution	Votes
	Baseline	12
	Original	7
	WACM1	3
	WACM2	3
	No Preference	1
	No Comment	1
Do you support the proposed implementation approach?	<p>15 of the 27 responses supported the implementation approach in that this modification should be implemented ahead of Gate 2 Offers being issued.</p> <p>A number of respondents disagreed with the implementation of the modification in its entirety.</p>	
Do you have any other comments?	<p>A proportion of the responses stated that they did not believe that the defect highlighted by this modification had yet manifested. As such, could not support the implementation of any variant of CMP448. This was often linked to a belief that the TMO4+ and Queue Management processes had not had sufficient time to embed.</p> <p>Concerns were also raised that matched issues raised in the Workgroup – in particular, the impact that the modification could have on project financing costs, and the impacts it could have on developers of different sizes.</p>	

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	Some respondents raised issues with the analysis undertaken by the Proposer as part of this Workgroup.
Legal text issues raised in the consultation	
No legal text issues were raised	
EBR issues raised in the consultation	
No EBR issues were raised	

Panel Recommendation vote

The Panel meet on the 04 July 2025 recommendation vote.

They assessed whether a change should be made to the CUSC by assessing the proposed change and any alternatives against the Applicable Objectives.

Prior to the Panel conducting their recommendation vote, the Ofgem representative confirmed that the Final Modification Report should be submitted in line with the approved timeline. In light of this advice given by the Authority, the Panel proceeded to carry out their recommendation vote for CMP448

Vote 1: Does the Original, WACM1 or WACM2 facilitate the Applicable Objectives better than the Baseline?

Panel Member: **Andrew Enzor, Users' Panel Member**

	Better facilitates AO (i)?	Better facilitates AO (ii)?	Better facilitates AO (iii)?	Better facilitates AO (iv)?	Overall (Y/N)
Original	N	N	-	N	N
WACM1	N	N	-	N	N
WACM2	N	N	-	N	N
Voting Statement					

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The Original and all WACMs are highly unlikely to better facilitate the objectives. They would only do so if the underpinning assumptions on queue health are correct (i.e. that the only period of the queue where issues emerge post CMP434 is between Gate 2 and M1).

Even if that does outturn, the incentives created by all CMP448 solutions are unlikely to better facilitate the objectives in the round. They continue the trend of over-focus on planning as the only marker of project development initiated in CMP435, which creates perverse incentives for developers to submit early planning applications. Responsible developers address risks to buildability and financial viability of a site in order of materiality, only submitting a planning application once other risks have been addressed. This leads to higher quality planning applications and reduces burden on planning authorities in progressing poor applications for projects which go on to be unviable due to buildability or financing issues. CMP448 would mean that the perverse incentives created by CMP435 would continue in the enduring solution, by encouraging developers to submit planning applications as soon as possible, to avoid the PCF.

Issues with queue health post CMP434 are likely to arise, as with implementation of any major reform programme. NESO should conduct ongoing assessments of queue health following implementation of CMP434 and bring forward appropriate measures to resolve any issues identified as soon as they become apparent. CMP448 is based on speculation on which period of the queue may be the least “healthy” and is so long-dated as to be meaningless – if queue health issues do arise, another CUSC modification should simply overwrite the PCF before it is ever activated.

Panel Member: **Binoy Dhasri, Users’ Panel Member**

	Better facilitates AO (i)?	Better facilitates AO (ii)?	Better facilitates AO (iii)?	Better facilitates AO (iv)?	Overall (Y/N)
Original	–	–	–	Y	Y
WACM1	Y	–	–	Y	Y
WACM2	–	–	–	–	N
Voting Statement					
Any modification that can encourage a more efficient management of the connection queue, is welcome. The solutions developed needs to be practicable and proportionate, recognising the complexity of the investment journey different developers have to take.					

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With the Progression Commitment Fee set to increase over time in the solutions developed in this modification, there could be a perceived unfairness between projects who face more liability simply due the complexity of their project which can take longer to develop.

Panel Member: **Dan Arrowsmith, NESO Panel Member**

	Better facilitates AO (i)?	Better facilitates AO (ii)?	Better facilitates AO (iii)?	Better facilitates AO (iv)?	Overall (Y/N)
Original	Y	Y	-	Y	Y
WACM1	Y	Y	-	Y	Y
WACM2	Y	Y	-	Y	Y

Voting Statement

The Original Proposal will introduce a solution that will monitor queue health, and if necessary, will introduce arrangements that will accelerate the connection of readier and more viable projects. As a result, NESO believes that it is positive against relevant objectives i), ii) and iv). NESO believes the proposal will have no impact on objective iii). When compared to the baseline, NESO believes that WACM1 and WACM2 will also have a positive effect on these same objectives as they offer similar behavioural incentives, though likely to a much lesser degree than the original. This is due to the respective discounts each WACM introduces compared to the Original Proposal.

Panel Member: **Garth Graham, Users' Panel Member**

	Better facilitates AO (i)?	Better facilitates AO (ii)?	Better facilitates AO (iii)?	Better facilitates AO (iv)?	Overall (Y/N)
Original	Y	Y	-	Y	Y
WACM1	Y	Y	-	Y	Y
WACM2	Y	Y	-	Y	Y

Voting Statement

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I have carefully considered the Code Administrator Consultation responses, which indicate a clear divergence of views on the three options. These are comprehensive in nature, setting out the broad arguments for and against each option (as well as the status quo, 'baseline'). Having taken all these views into account (alongside the other contents of the DFMR) I have concluded that the Original, WACM1 and WACM2 do better facilitate Applicable Objectives (i), (ii) and (iv) whilst being neutral in terms of (iii) and that, on balance, WACM2 is 'Best'.

Panel Member: **Joe Colebrook, Users' Panel Member**

	Better facilitates AO (i)?	Better facilitates AO (ii)?	Better facilitates AO (iii)?	Better facilitates AO (iv)?	Overall (Y/N)
Original	N	N	-	N	N
WACM1	N	N	-	N	N
WACM2	N	N	-	N	N

Voting Statement

I do not support the Original Proposal or any of the alternative proposals. I do not believe there is a defect with the connections queue as outlined by the proposal, and I would recommend keeping the Baseline, i.e. existing code.

The Proposer has stated that when a project's discounted operating cashflow is 98% of the discounted pre-commissioning costs, then further development expenditure would be paused and a PCF of £2,500/MW would be sufficient for the developer to self-terminate (figure 6, page 41 in the CAC report). The proposer stated that the 98% figure allows for the project failure rate. I believe this is fundamentally untrue and the proposer incorrectly assumed 100% of projects in pre-planning will be built. When calculating the appropriate value of the PCF, the proposer has failed to acknowledge that a project will need to make a profit that will need to pay for the cost of failed projects in development, the fixed overheads of running a business that are not directly related to a specific project, and any shareholder returns. Therefore, the PCF value should be significantly lower than £10,000/MW and may even be as low as £0/MW.

I believe the PCF will incentivise developers to submit poor quality planning applications to avoid paying the PCF, even if they think a project is unviable. I do not believe Ofgem should be approving code modifications that will have a significantly negative impact on the planning process. A high number of low-quality planning applications may harm the

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reputation of renewable and energy storage projects with the public and is therefore a key risk to achieving decarbonisation of the UK economy.

CMP435 will remove a significant number of projects from the connections queue and align the queue with the Clean Power 2030 Action Plan (CP30). Projects still in the connection queue will be required to comply with ongoing queue management milestones and the Gate 2 Criteria Methodology. I believe this will significantly reduce the impact of unviable projects not self-terminating. I believe new projects will still need to be developed over the next decade to allow the UK to meet the Clean Power 2030 plan and Net Zero, due to the natural attrition of projects in development and the ambitious capacity targets set by the Government. At a time when an increase in new projects will be required to replace stalled or unviable projects within the Clean Power 2030 plan, the Progression Commitment Fee (PCF) will create a significant barrier to entry and be a deterrent to new projects entering the connections queue. This will make it more difficult to deliver the Clean Power Plan 2030 and Net Zero and, therefore, the Original and all WACMs are negative against Objective i).

The PCF increases barriers to entry for new entrants, particularly Small and Medium Enterprises (SMEs), to the market. The PCF increases the barrier to entry for new projects, particularly when they are considered at most risk of failure. The introduction of the PCF will reduce innovation and risk-taking, and therefore reduce the competitiveness of supply in the UK. The PCF has the potential to stop the development of viable projects at an early stage of development because the risk/reward to approve an investment is too great. It will reduce competition in the supply of electricity. Therefore, the Original and all WACMs are negative against objective ii).

CMP448 does not have an impact on the compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency, and therefore the Original and all WACMs are neutral against Objective iii).

PCF partially duplicates User Commitment and Final Sums and will add a significant administrative burden to NESO and the connecting projects. Therefore, the Original and all WACMs are negative against objective iv).

Although CMP448 is not a charging modification, I believe the charges are not cost-reflective of the cost of failed projects to the electricity networks, which is a serious concern that Ofgem should take into consideration in addition to the CUSC objectives.

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Panel Member: **Joe Dunn, Users' Panel Member**

	Better facilitates AO (i)?	Better facilitates AO (ii)?	Better facilitates AO (iii)?	Better facilitates AO (iv)?	Overall (Y/N)
Original	Y	Y	-	Y	Y
WACM1	Y	Y	-	Y	Y
WACM2	Y	Y	-	Y	Y

Voting Statement

Original and both WACMs are fundamentally similar in comparison to the baseline, but variations could compare more or less favourably against each of the ACOs

ACO1 – Agree with the proposer that the mechanism allows NESO to activate a PCF when it appears to be required, and that this will enable more viable projects to be connected quicker, allowing for more efficient and co-ordinated design by ensuring that only viable projects are captured in design and build plans. This is the same for both WACMs.

ACO2 – The PCF has the potential to help create a more efficient and appropriately subscribed connections queue, which will encourage competition as there will be less risk of significant delays, and greater short-term incentives for those viable projects who can secure a grid connection (by being ready and needed). This is the same for both WACMs.

ACO3 – Neutral as the original or WACMs do not impact on this OCA

ACO4 – Agree with the proposer that the PCF will accelerate the removal of unviable projects, and therefore create more efficiency in the administration of the CUSC by reducing waste through the administration of unviable projects. This is the same for both WACMs.

Preference for WACM2 as it strikes the best balance by: i) creating efficiency in the process through retaining the full PCF security required, which facilitates better performance against ACO1 and ACO4, in line with the Original and ii) as it better facilitates ACO2 by increasing competition through reducing the risk of deterring viable projects from joining the Gate 2 queue. Under WACM2, these potentially viable projects would be more likely to accept the risk of the PCF with the self-determination discount available.

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Panel Member: **Kyran Hanks, Users' Panel Member**

	Better facilitates AO (i)?	Better facilitates AO (ii)?	Better facilitates AO (iii)?	Better facilitates AO (iv)?	Overall (Y/N)
Original	Y	-	-	Y	Y
WACM1	Y	-	-	Y	Y
WACM2	Y	-	-	Y	Y
Voting Statement					
<p>All of the proposals seek to tighten up the queue management process. While I recognise the opposition reflected in the consultation, I consider that the graduated nature of the proposal does deliver a slight strengthening of the queue management process.</p> <p>I selected WACM 2 as this seems to offer a sensible self termination option in what is an unknown process.</p>					

Panel Member: **Lauren Jauss, Users' Panel Member**

	Better facilitates AO (i)?	Better facilitates AO (ii)?	Better facilitates AO (iii)?	Better facilitates AO (iv)?	Overall (Y/N)
Original	N	N	-	N	N
WACM1	N	N	-	N	N
WACM2	N	N	-	N	N
Voting Statement					
No voting statement provided.					

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Vote 2 – Which option best meets the Applicable Objectives?

Panel Member	Best Option	Which objectives does this option better facilitate? (if baseline not applicable).
Andrew Enzor	Baseline	N/A
Binoy Dharsi	WACM1	i) and iv)
Dan Arrowsmith	Original	i),ii) and iv)
Garth Graham	WACM2	i),ii) and iv)
Joe Colebrook	Baseline	N/A
Joe Dunn	WACM2	i),ii) and iv)
Kyran Hanks	WACM2	i) and iv)
Lauren Jauss	Baseline	N/A

Panel Conclusion

The Panel recommended by majority that the Original and WACM1 better facilitated the Applicable CUSC Objectives.

When will this change take place?

Implementation date

The intention is that this proposal is implemented in advance of Gate 2 Offers being issued by NESO. This is currently expected to be Q4 2025. This would ensure that the provisions within the proposal could be included in all Gate 2 contract Offers before they are issued (by NESO plus DNOs / transmission connected iDNOs, to those developers that applied, in early/mid 2025, for Gate 2), and the maximum benefit of the proposal can be achieved.

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Date decision required by

A decision date prior to the proposed Gate 2 Offers being issued⁵⁰ by NESO, DNOs or transmission connected iDNOs, to those developers that applied for Gate 2 is requested to allow the full benefit of the proposal to be realised.

Implementation approach

The proposal would need to be implemented prior to Gate 2 Offers being issued (by NESO plus DNOs / transmission connected iDNOs, to those developers that applied for Gate 2) and applied to all projects between their acceptance of the project's Gate 2 Offer and Milestone 1. Only then will it be able to fully achieve its stated intent.

NESO system changes will be required to monitor the Activation Metric and Activation Threshold prior to the potential activation of the PCF. If the PCF is activated, then post activation systems will be required by NESO to track and collect applicable project liabilities for the PCF.

Interactions

☐ Grid Code ☐ BSC ☐ STC ☐ SQSS
☐ European Network Codes ☐ EBR Article 18 T&Cs¹ ☒ Other modifications ☐ Other

At the time the proposal was raised [CMP434](#) and [CMP435](#) had not yet been approved. It was stated that the proposal was dependent on the approval of these CUSC modifications and should they not be approved, the proposal would be reconsidered. Both CMP434 and CMP435 were approved by Ofgem in April 2025 and as such this CMP448 proposal can proceed as planned.

[CMP446](#) (WACM1) was approved by Ofgem on 12 May 2025 and implemented on 13 May 2025. This CUSC modification has raised the lower Transmission impact threshold from 1MW to 5MW (of export capacity) in England and Wales. For the avoidance of doubt, this CMP448 proposal will apply to all distribution connected generation that go through the TIA (Transmission Impact Assessment) process as per the outcome of CMP446.

It was also identified that a DCUSA modification regarding Independent System Operator and Planner (ISOP) Provision 5.74 would be required in the event that CMP448

⁵⁰ This is currently expected to be at the end of calendar year 2025.

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is positively determined, in order to protect embedded projects and ensure there is no scope for different treatment.

Acronyms, key terms and reference material

Acronym / key term	Meaning
BEGA	Bilateral Embedded Generation Agreement
BSC	Balancing and Settlement Code
CAP	Connections Action Plan
CAPEX	Capital Expenditure
CNDM	Connections Network Design Methodology
CMP	CUSC Modification Proposal
CFI	Call For Input
CP30	Clean Power by 2030
CUSC	Connection and Use of System Code
DC	Developer Capacity
DCO	Developer Consent Order
DCUSA	Distribution Connection and Use of System Agreement
DESNZ	Department for Energy Security and Net Zero
DEVEX	Development Expenditure
DNOs	Distribution Network Operators
EIA	Environmental Impact Assessment (EIA)
EBR	Electricity Balancing Regulation
ENA	Energy Networks Association
ETYS	Electricity Ten Year Statement
FID	Final Investment Decisions

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G2TWQ	Gate 2 to Whole Queue
IC	Interconnector Capacity
iDNO	Independent Distribution Network Operator
ISOP	Independent System Operator and Planner
NESO	National Electricity System Operator
NETS	National Electricity Transmission System
NPV	Net Present Value
Ofgem	Office of Gas and Electricity Markets
PCF	Progression Commitment Fee
PCFS	Progression Commitment Fee Security
RDC	Revised Developer Capacity
RIC	Revised Interconnector Capacity
RTEC	Revised Transmission Entry Capacity
SME	Subject Matter Expert
SQSS	Security and Quality of Supply Standard
STC	System Operator Transmission Owner Code
T&Cs	Terms and Conditions
TCMF	Transmission Charging Methodologies Forum
TEC	Transmission Entry Capacity
TIA	Transmission Impact Assessment
TMO4+	Target Model Option 4+
TNUoS	Transmission Network Use of System
TO	Transmission Owner
WACC	Weighted Average Cost of Capital

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Annexes

Annex	Information
Annex 01	CMP448 Proposal Form
Annex 02	CMP448 Terms of Reference
Annex 03	CMP448 Urgency Letters
Annex 04	CMP448 Example Scenarios
Annex 05	CMP448 Capacity Reduction Example Scenarios
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