Public

CMP448 Workgroup Consultation

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 by 2030 (CP30) and net zero targets.

Modification process & timetable

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

Have 10 minutes? Read our Executive summary
Have 180 minutes? Read the full Workgroup Consultation
Have 240 minutes? Read the full Workgroup Consultation and Annexes.

Status summary: The Workgroup are seeking your views on the work completed to date to form the final solution(s) to the issue raised.

This modification is expected to have a: High impact on Developers, Generators, Transmission System 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@nationalenergyso.com	**Code Administrator Chair**: Joe Henry Joseph.henry2@nationalenergyso.com
How do I respond?	Send your response proforma to cusc.team@nationalenergyso.com by **5pm** on **07 April 2025**	

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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 2030 (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 additional[1] financial requirement on generation and interconnector developers[2] if needed, and a mechanism for its potential activation to provide such an incentive. The modification would thus 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.

Proposer's solution

If approved, the proposal would introduce a Progression Commitment Fee (PCF[3]) 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 similar 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 indicated by a defined "Trigger Metric" and "Trigger Threshold". If the Trigger Metric exceeds the defined Trigger Threshold, then the PCF may be activated. If the Trigger Metric remains below the Trigger Threshold, then the PCF will not be activated.

[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 triggered 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'.

If it is activated, the PCF will increase over time, with the PCF applicable to a project having 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 24 months). A User will be required to post a security for the applicable PCF £/MW value 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 all projects with either Transmission Entry Capacity, or Developer Capacity or Interconnector Capacity while they are between the acceptance[4] of the project's Gate 2 Offer and that project's User Progression Milestone 1. If a project then terminates 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 projects' liability to pay the PCF or securitise against it, falls away.

Implementation:

This CMP448 proposal has been designated as Urgent by the Authority and as such will proceed upon the Urgent timeline issued by the Authority. It is proposed to be implemented prior to Users having to sign (to accept) their project Gate 2 Offer. These Gate 2 Offers are currently expected to be issued by the end of calendar year 2025 and, therefore, implementation of CMP448 (if approved) is currently scheduled for the end of calendar year 2025.

Interactions

This CMP448 proposal is dependent on the approval and implementation of CMP434 and CMP435. No other interactions have been identified.

[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.

What is the issue?

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)[5] initiatives that Ofgem and 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[6] and CMP435[7] are in-flight modifications that, if approved, will introduce the concept of a Gate 2 connections queue[8]. Should these modifications be approved, when a project enters the Gate 2 queue[9] 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'[10] 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 Commitment[11] is required from customers under Section 15 of the Connection and Use of System Code (CUSC)[12] 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.[13] This in turn helps protect other Users from costs associated with the cancellation of projects in the connections queue.

[5] Connections Action Plan -https://assets.publishing.service.gov.uk/media/6581730523b70a000d234bb0/connections-action-plan-desnz-ofgem.pdf
[6] CMP434: "Implementing Connections Reform" - https://www.neso.energy/industry-information/codes/cusc/modifications/cmp434-implementing-connections-reform
[7] CMP435: "Application of Gate 2 Criteria to existing contracted background" - https://www.neso.energy/industry-information/codes/cusc/modifications/cmp435-application-gate-2-criteria-existing-contracted-background
[8] Although CMP434 and CMP435 are not approved at time of writing, for the purposes of this Proposal, approval has been assumed. Should CMP434 and/or CMP435 not be approved this Proposal will be reconsidered.
[9] The point at which a User has signed its Gate 2 offer, and this has been countersigned by NESO.
[10] See Gate 2 Criteria Methodology - https://www.neso.energy/document/346656/download
[11] Introduced in 2013 via CUSC change Proposal CMP192, the User Commitment framework has not been altered since it entered into force.
[12] CUSC Section 15: User Commitment Methodology - https://www.neso.energy/document/91416/download
[13] For example, in the event of cancellation, delay, or reduction in capacity.

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 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 longest period between User Progression Milestones is between Gate 2 entry and User Progression Milestone 1: Initiated Statutory Consents and Planning Permission (Milestone 1). 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.

There are several in-flight connections reforms progressed thus far; these include:

- 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"[14] - seeks to raise the lower Transmission impact threshold from 1MW to 5MW in England and Wales.

Should these reforms be implemented, they will have a positive effect on the efficiency of the connections queue. However, the lack of a more focused financial incentive to

[14] CMP446: "Increasing the lower threshold in England and Wales for Evaluation of Transmission Impact Assessment" - https://www.neso.energy/industry-information/codes/cusc/modifications/cmp446-increasing-lower-threshold-england-and-wales-evaluation-transmission-impact-assessment-tia

regularly review project viability, particularly in the period between meeting Gate 2 and User Progression Milestone 1, remains a potential gap. This could 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 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 triggered by Distribution Network Operators ("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"[15] 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.

[15] CMP417: "Extending principles of CUSC Section 15 to all Users" - https://www.neso.energy/industry-information/codes/cusc/modifications/cmp417-extending-principles-cusc-section-15-all-users

The creation or amendment to any termination fees or securities associated with Distribution Connected Demand connections triggered by DNOs and Directly Connected Demand are therefore out of scope of this proposal.

For the avoidance of doubt, the proposal will apply to small, medium and large distribution connected generation who are themselves party to agreements under CUSC[16] or are otherwise captured through the CUSC process which evaluates the impact of such connections on the National Electricity Transmission System 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 greater than 1MW or in mainland Scotland greater than 200kW (or greater than 50KW if connecting in the Northern Scottish Islands).[17]

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 2025[18] 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.[19] 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,[20] reform is vital to facilitate clean power by 2030 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"[21] 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

[16] BEGA and BELLA

[17] 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.

[18] 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

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

[20] 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.

[21] CMP376: "Inclusion of Queue Management process within the CUSC" entered into force in November 2023. https://www.neso.energy/industry-information/codes/cusc/modifications/cmp376-inclusion-queue-management-process-within-cusc

the Transmission Connection Application Process for Onshore Applicants"[22] introduced an additional Letter of Authority requirement to reduce the number of speculative connection applications. More recently, CMP434, CMP435 and CMP446 are live change proposals which aim to further reform and improve the connections process.

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.

[22] CMP427: "Update to the Transmission Connection Application Process for Onshore Applicants" https://www.neso.energy/industry-information/codes/cusc/modifications/cmp427-update-transmission-connection-application-process-onshore-applicants

What is the solution?

Proposer's solution

Please note – any proposal put forward is subject to Ofgem approval

Background

On 11 October 2024, NESO took an initial suggestion for a "financial instrument" CUSC modification to the Transmission Charging Methodologies Forum (TCMF).[23] NESO received a lot of useful and constructive feedback from stakeholders during the forum and following it. On 05 November 2024 NESO then issued a Call for Input[24] 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 remains 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 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

[23] The slide pack presented at TCMF: https://www.neso.energy/calendar/adhoc-session-transmission-charging-methodologies-forum-tcmf-11102024

[24] Financial Instrument Call for Input Document: https://www.neso.energy/document/346826/download

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 trigger event.

Solution Overview

This proposal will introduce a new fee payable on termination or reduction in capacity, the "Progression Commitment Fee" (PCF or fee). The PCF will initially be dormant, and it will remain dormant unless a defined trigger 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 be applicable to all projects that hold Transmission Entry Capacity (TEC), Developer Capacity[25] (DC) or Interconnector Capacity (IC) and have accepted a Gate 2 Offer and not passed User Progression Milestone 1. 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 6 monthly intervals up to a maximum of £10,000/MW for any individual project (after 24 months). Projects will be liable for the full value of their PCF upon termination of the project via either (i) self-termination or (ii) 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 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 against 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 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.

Triggering the Activation of the PCF

Upon implementation of this CMP448 modification the PCF will initially be dormant and set at a rate of £0/MW. 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

[25] The PCF will be applied to projects with Developer Capacity through the agreements between NESO and the DNO or transmission connected iDNO.

are "terminated"[26] from the Gate 2 connections queue as a result of Milestone termination (where a project fails to meet a Milestone) at Milestone 1. Any project MWs that are subsequently replaced by another project (or projects) with a connection date within 12 months of the connection date of the initial (terminated) project, will be excluded from the metric.

This metric will be referred to as the "Trigger Metric".

Following a project termination, what qualifies as replacement MW capacity for the purposes of the Trigger 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 included in the Trigger Metric.

The Trigger 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 thereafter[27]. For the avoidance of doubt, any terminated or replacement MW capacity etc., associated with one five-year period will not, for the purposes of the Trigger Metric or Trigger Threshold, be carried over to the next five-year period. NESO will measure the Trigger Metric at six monthly intervals, the "measurement point" and publish this data.

The "Trigger Threshold" will be set at a cumulative total of 6,000MW 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 Trigger Threshold will be reviewed by NESO ahead of each subsequent five-year period.

If at any measurement point, the published Trigger Metric is greater than 6,000MW, the Trigger Threshold will have been deemed to be met. The Trigger Threshold is based on a cumulative MW total. Therefore, once it has been met, there will be no opportunity for the Trigger Metric to fall back below this threshold at future measurement points in that five-year period.

If the Trigger 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 1 month of

[26] Project terminations will be regarded as such in line with existing arrangements and guidance

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

the Trigger Threshold being met, NESO will notify Ofgem[28] of its decision to activate, or not to activate the PCF. It is proposed that Ofgem should then have power to override[29] NESO's decision (to activate /not activate) within 2 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 Trigger Threshold is first met.

User Liability Post PCF Activation

If the Trigger Threshold is met and the PCF is activated, Users will be provided a notice of at least 3 months from the date of Ofgem's decision, after which the PCF will increase to £2,500/MW. If a User removes their project from the connections queue within this 3 month period, they will not be liable for the PCF upon termination. Similarly, if a User reduces their project MW capacity within this 3 month period, they will not be liable to pay the applicable PCF for the amount of MW reduced[30]. If a User wishes for their project to remain in the connections queue beyond this period, they will be required to post the PCFS against the PCF.

For the avoidance of doubt, even if a User does not have to pay any PCF, they will still be liable for the applicable cancellation charge as per the current CUSC arrangements.

Once the PCF has been activated, it will increase at a rate of an additional £2,500/MW every six months up to a maximum cap of £10,000/MW (after 24 months). Any new 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.[31] Subsequent increases will then be every six months. Please see the scenarios outlined in Annex 4 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

[28] And stakeholders.

[29] Not activate if NESO decided to activate or to activate if NESO decides not to activate.

[30] 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

[31] 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.

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 will draw upon the entire security. Any difference between the total liability due and security held may be pursued by NESO.

Any increase in the cash position of NESO as a result of the PCF shall be redistributed to network Users via TNUoS charges.

Capacity Reduction

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 the developer will be liable to pay a portion of the applicable PCF proportionate to the reduction in MW capacity as follows:

(applicable PCF x (TEC, DC, or IC)) - (applicable PCF x (RTEC, RDC or RIC))

NESO will draw upon the PCFS if a developer does not pay the portion of the PCF that it is liable for upon the MW capacity reduction.

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.

Examples depicting this are available in Annex 5 of this consultation.

Workgroup considerations

The Workgroup convened five times prior to this Workgroup consultation 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.

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 Transmission Charging Methodologies Forum (TCMF).

That 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 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". 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, a developer has control over their project progression. Submitting a planning application is an action that is within their control

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 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.

Workgroup Consultation Question 6: Do you agree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding the **duration of the fee**? Please provide the rationale for your views.

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 Call for Input 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 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. This 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.
- 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 scenario[32] 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 4 of this consultation.

[32] Where the Trigger Threshold has been reached and a decision taken to activate the PCF.

Workgroup Consultation Question 7: Do you agree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding the **profile and timing of the fee**? Please provide the rationale for your views.

iii) The Trigger 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 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 parameter were required to ascertain when project progression in the Gate 2 connections queue becomes an issue:

- **Trigger Metric**: a measure of *queue health* with respect to project progression to Milestone 1 (measured on a regular basis); and
- **Trigger Threshold**: a pre-defined threshold MW value above which the measure would signal that the PCF should be triggered.

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

- The Trigger Metric will measure the cumulative project Megawatts (MWs) that are "terminated" from the Gate 2 connections queue as a result of Milestone termination (where a project fails to meet a Milestone) at Milestone 1.
- For the avoidance of doubt, projects that voluntary withdraw at any point, will not be included in the measurement.
- Any project MWs that are subsequently replaced by another project (or projects) with a connection date within 12 months of the connection date of the original project (that was terminated) will be excluded from the Trigger Metric.
- If no replacement MW capacity can be identified within six months, the terminated MW capacity will be regarded as not having been replaced by another project (or projects) for the purposes of the Trigger Metric.

The Proposer explained to the Workgroup that the Trigger 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.

The Original solution stipulates that in regard to project replacement, any project MW that are subsequently replaced by another project (or projects) with a connection date

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

Following feedback from Workgroup members, the Proposer also advised that the Trigger 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 thereafter[33]. NESO will measure the Trigger Metric at six monthly intervals, the "measurement point", and publish this data.

The Proposer was asked whether NESO would update the Transmission Entry Capacity (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 trigger 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 Trigger 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 (as yet) 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

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

member 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 Trigger Threshold.

The trigger 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.
- A Trigger 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, a Trigger 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 a Trigger 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 Trigger 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 where 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 included 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 on to the next subsequent year (but was not carried over from one five year period to another five year period). The Proposer stated that this approach 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 seemed somewhat counterintuitive, and it could incentivise sub-optimal behaviour, and should be evaluated annually. The Proposer clarified that once the PCF was activated that it would stay activated in perpetuity[34], negating this concern and agreed with the intention to look at this 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 was for the PCF to remain activated, once initially activated. The Proposer agreed to demonstrate scenarios illustrating this. These are available at Annex 4 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 Trigger 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.

Workgroup members broadly agreed with the Proposer regarding the application of the Trigger Threshold on a national connections queue basis. However, some Workgroup members expressed views that suggested that technology type should be considered further. An illustrative example was given that there is an oversubscription of batteries in some areas of GB, whereas there may be headroom for other technologies. If a national

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

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 SME from NESO supported this standpoint.

A Workgroup member expressed an opinion that the proposed solution may create a perverse incentive as large projects may be disincentivised to join the connections queue due to the level of the PCF and, as such is potentially discriminatory for certain technologies. It was suggested that a Trigger Metric per technology should be considered by the Proposer. This was supported by others who mentioned that this was pertinent for projects with long lead time builds and those technologies which have longer timelines to meet M1, such as Offshore Wind, as well as those projects following the 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 Trigger 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 Trigger Metric because this (project self – termination) behaviour is what NESO aim to incentivise through the introduction, via this proposal, of the PCF. proposal

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 Trigger 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 triggering and that this would be impactful on *queue health*.

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 developers 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 project MW are only intended to be counted towards replacement if they are 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 Trigger 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 triggering 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 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. This was noted by the Proposer.

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 Trigger Metric had been activated. Concerns were also expressed that this 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.

Workgroup Consultation Question 8: Do you agree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding **the Trigger Metric**? Please provide the rationale for your views.

iv) The Trigger Threshold

The Proposer intends that the "Trigger Threshold" will be set at a cumulative total of 6,000MW for the initial metric measurement time period. The Proposer stated that the trigger should be sensitive enough to be triggered quickly if there is a problem with projects not progressing to M1 in the connections queue. Therefore, the Proposer want a Trigger 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 Trigger 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;
    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 Trigger 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 4 of this report.

Workgroup members queried whether the use of a capacity volumetric trigger 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.

Workgroup Consultation Question 9: Do you agree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding **the Trigger Threshold**? Please provide the rationale for your views.

v) Trigger Activation Governance

The Proposer explained that the Original Solution would include a Trigger Threshold which when met could lead to activation of the PCF subject to a NESO decision (to Ofgem and published for stakeholder transparency) and an Ofgem decision that the PCF be activated. This would use a pre-defined Trigger Threshold to measure *queue health* and indicate that the PCF may need to be activated. This means that the application of the PCF would be dormant until the defined Trigger Threshold is breached. 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 CFI but would equally allow NESO to activate the PCF if needed expediently.

The following diagram in Figure 1, which details the proposed timescales for this was shared with Workgroup members.

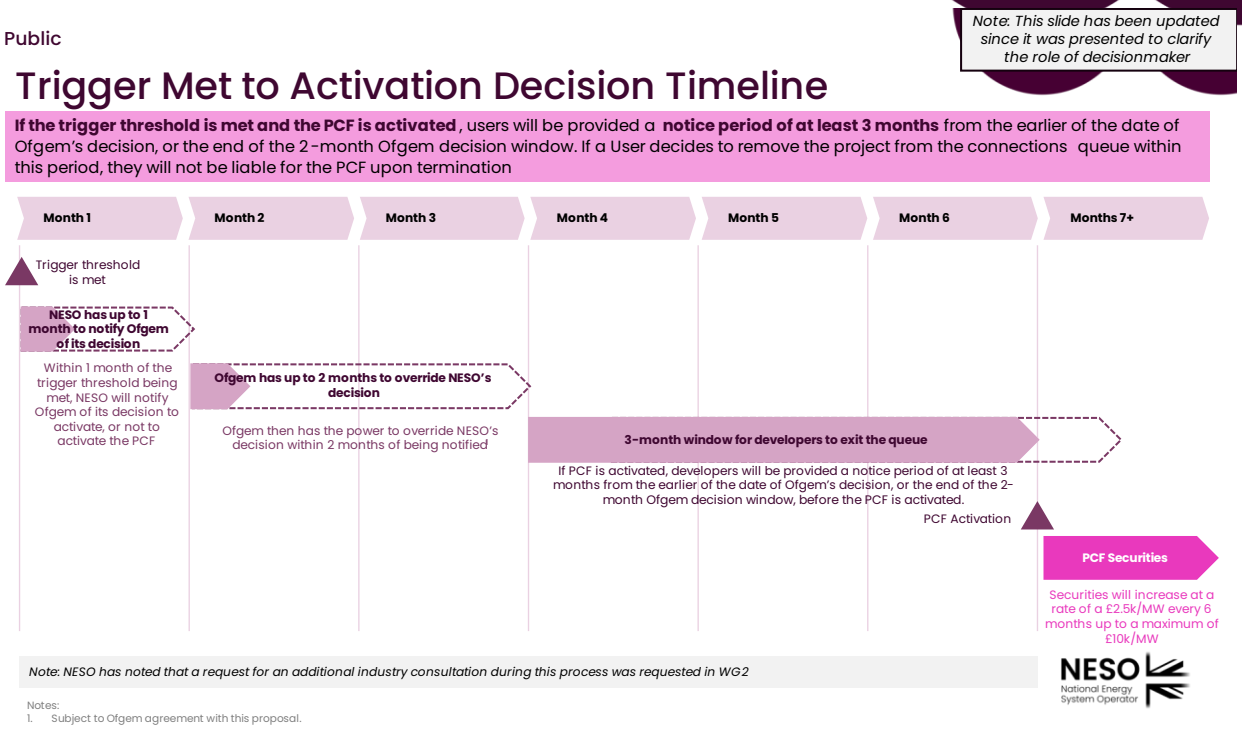

Figure 1 – Proposed Timetable for PCF Activation The Proposer explained to the Workgroup that the Trigger Threshold will be set at a cumulative total of 6,000MW for the initial Trigger Metric time period[35], which is the approximate equivalent of 5% of the additional MW capacity (but not the MW capacity 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 NESO is to review the Trigger Threshold ahead of each subsequent 5-year period[36]. If, at any measurement point, the published Trigger Metric, is greater than 6,000MW, the Trigger Threshold will have been deemed to be met.

If the Trigger Threshold is deemed to have been met at any measurement point, NESO will decide to activate the PCF or not and will notify Ofgem of its decision within 1 month of the Trigger Threshold being met. The CMP448 proposal is that Ofgem should then have the power to override NESO's decision (to activate / not activate the PCF) within 2 months of being notified. For the avoidance of doubt, there will be no ability of either NESO or Ofgem to activate the PCF unless the Trigger Threshold is first met.

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 date of Ofgem's decision. 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.

[35] This time period being from the date of CMP448's implementation to 31st December 2030.
[36] The subsequent five year period, after the initial period, would run from 1st January 2031 to 31st December 2035 and so on.

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 a Trigger Metric and Trigger 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 Trigger 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 Trigger 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 whether the PCF has been activated lay with NESO or Ofgem. The Proposer explained that whilst NESO would decide whether the PCF should be activated or not, the decision ultimately lay with Ofgem as to whether to override that decision. The Proposer agreed to make this clear within the proposal.

There were views expressed in the Workgroup about whether the Trigger 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 Trigger Threshold might be more logical, as it would avoid resetting to it to zero (MW), every five years, and provide a more continuous 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.

Workgroup members also sought clarity as to whether the Trigger Threshold could be de-activated once a decision has been made to activate the PCF. The Proposer confirmed that this was not the intention of the Original Solution. Some Workgroup Members suggested that there should be a mechanism which allows for 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 Trigger Threshold has been met, in order to understand if the thresholds established are 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 decision to activate/not activate the PCF.

The Proposer advised the Workgroup that it was not currently the intention to run a NESO consultation upon activation of the PCF, as it sees the code governance process around this specific modification as the opportunity for industry to provide feedback on the process.

Workgroup Consultation Question 10: Do you agree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding the **Trigger Activation Governance**? Please provide the rationale for your views.

vi) Value of the Fee

The Proposer highlighted that there was industry feedback[37] 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 Offer[38], increasing by a further £2,500/MW at each 6 monthly interval 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 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

[37] To NESO's November 2024 Call for Input consultation.
[38] This being the date when the project's Gate 2 Offer was accepted.

of £2,500/MW at 6 monthly intervals up to a maximum cap of £10,000/MW (after 24 months) 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 4 of this consultation.

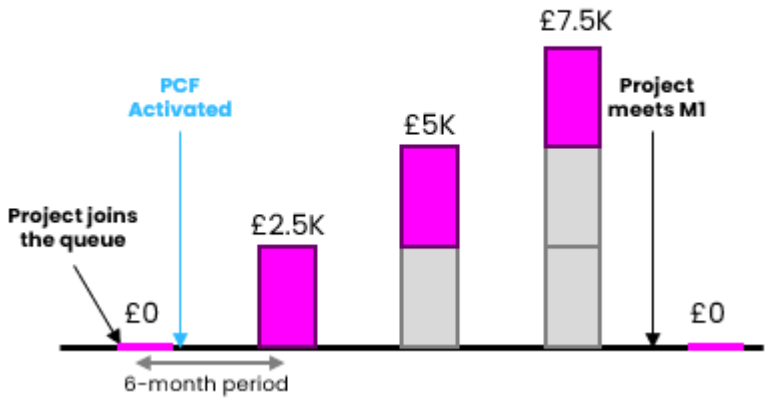

Figure 2: Demonstration of how the fee will apply

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 other[39], as this may dilute the incentive for developers to proactively review the viability of their projects.

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 securities[40] 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.

[39] 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.

[40] The existing CUSC ones plus this new PCF.

The Proposer was questioned as to why the figure of £2,500/MW was selected as opposed to £zero/MW. The Proposer advised that if the PCF is activated when the project is in the Gate 2 connections queue, that it would start at £zero/MW. This would be followed by a notice period, to stakeholders, of up to one month for a NESO decision (to Ofgem) followed by up to two months for Ofgem to ratify the decision from NESO, then a further period of at least 3 months before the PCF would move to the stated figure. If the PCF has been activated as a project enters the Gate 2 connections queue (when the accepted Gate 2 offer is countersigned by NESO), the figure would be £2,500/MW. 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).

Workgroup members also suggested that transparency would be increasingly important about how many projects and the quantum (of MW capacity that contributed to the Trigger 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.

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 NPVs 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 take into account 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 highlighted a view that the proposal disproportionately impacts 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 version of the proposition, exposure to other CUSC securities in the window where the PCF is applicable would be lower relatively.

Workgroup Consultation Question 11: Do you agree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding the **value of the fee**? Please provide the rationale for your views.

vii) Project Safeguarding

A NESO Consultant SME presented to the Workgroup on safeguarding considerations that were undertaken whilst developing the proposal in regard to the maximum PCF cap and impacts on smaller developers. The 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.

A 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 3 below.

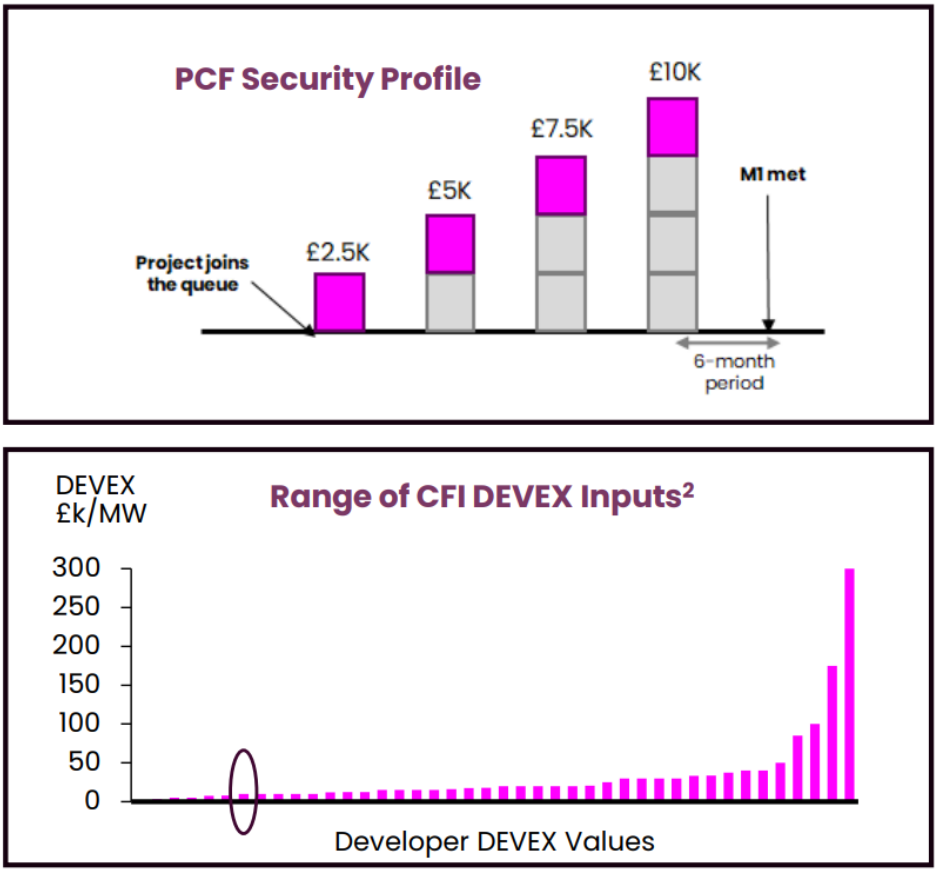

Figure 3: Scenario to illustrate the cost of financing the PCF, including as a proportion of project DEVEX (Development Expenditure)

The scenario presented made three assumptions in total:

1. Security Financing Rate: 8% per annum[41]
2. Financing Period: 24 months from joining the Gate 2 connections queue to passing Milestone M1.
3. DEVEX[42]: 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 design[43] (i.e. £20,000/MW before Milestone M7), the Financial Instrument would have had an estimated cost of £6,400/MW (assuming 4 years in the connections queue before M7

[41] 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.

[42] CFI DEVEX estimates for Batteries, Solar, Onshore Wind and Offshore Wind.

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

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 Weighted Average Cost of Capital (WACC). The NESO Consultant SME stated that they understood the argument around proportionality. In regard to the 8% financing rate figure, the 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 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 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 developers 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 GWs involved.

Workgroup Consultation Question 12: Do you agree with the methodology presented to the Workgroup by NESO regarding **safeguarding considerations**? Please provide the rationale for your views.

viii) PCF Value Determination

The approach to how the PCF £/MW Value was determined by NESO was also presented by NESO Consultant 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 Negative Project Value 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 CAPEX required to commission the project.
- The developer's estimate of the project NPV may therefore change over time, either favourably or unfavourably.
- 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:

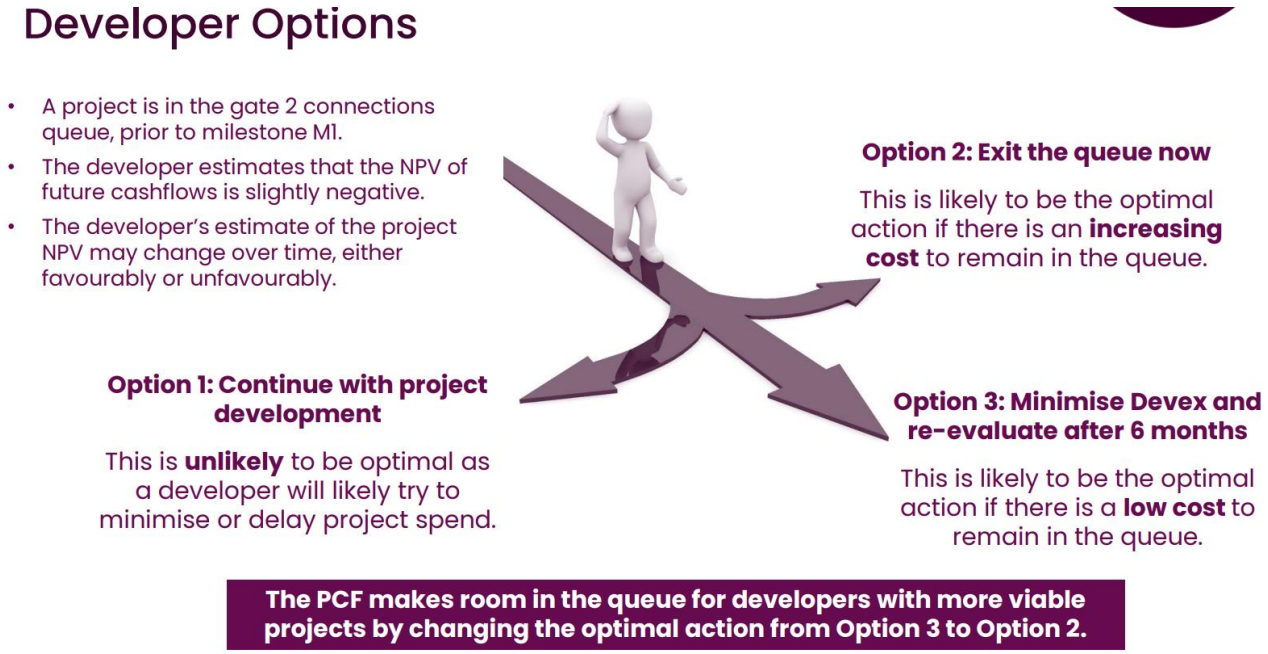

Figure 4: Developer Actions

The NESO Consultant 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 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 assumptions[44] 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 Proposer expanded on this, stating that this is something that they may consider, and they would encourage feedback from the Workgroup and industry (via this consultation) as to whether this would be a workable option.

The NESO Consultant 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.

[44] Presented by NESO's SME consultant.

- 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 Consultant 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 Consultant SME then set the value of the PCF to be greater than the value of this option.

The following scenario assumptions in Figure 5 were presented to the Workgroup:

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.

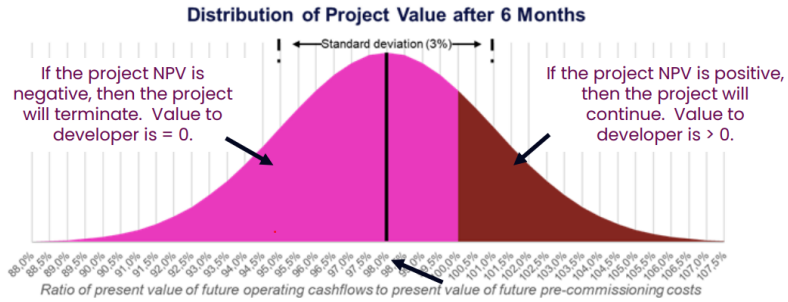

Figure 5: Scenario Assumptions

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 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 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 Contract for Difference (CfD) within the modelling. The 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 triggered, 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.

ix) Projects in Scope of the PCF

The Proposer highlighted to the Workgroup projects that would be in scope of the PCF, referencing Figure 7 below.

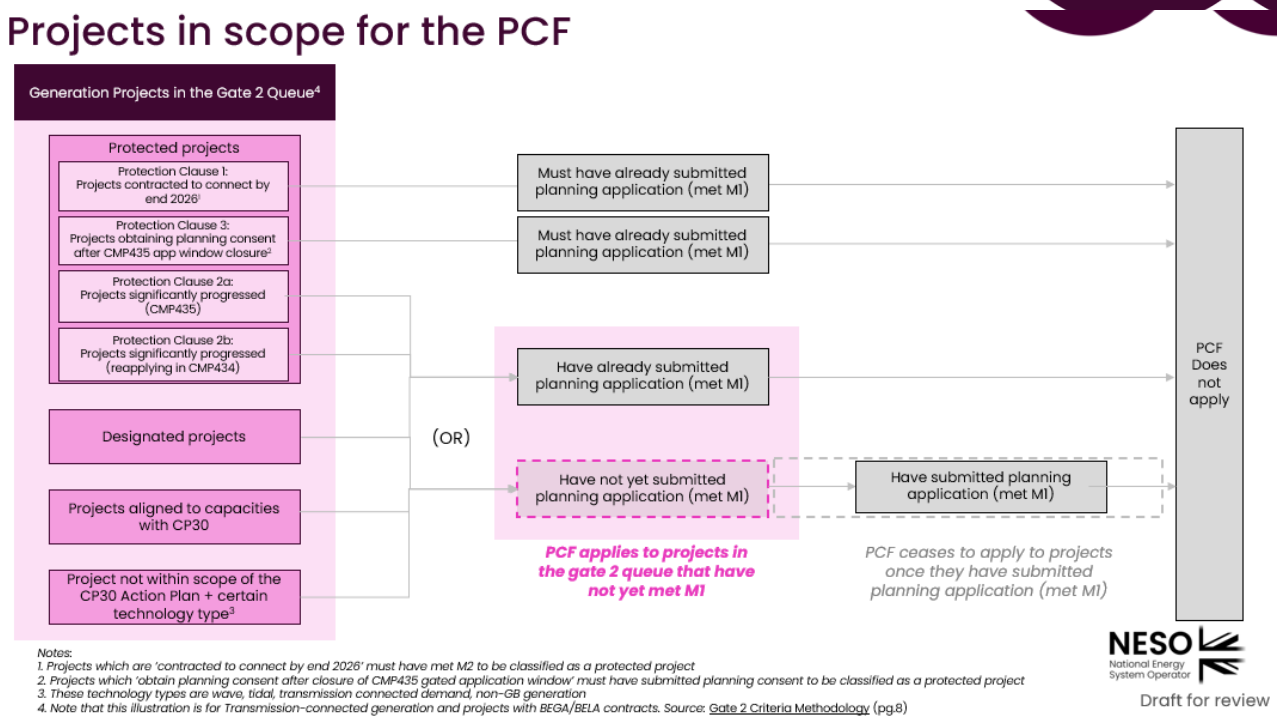

Figure 7 – Projects in scope of PCF

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 National Electricity Transmission System.

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 7 above. It was noted that the PCF would not apply post M1 for these projects. A Workgroup member reiterated that transparency around the quantities of these projects would be important.

Workgroup Consultation Question 13: Do you agree with the current outline for **projects in scope of the PCF** (Progression Commitment Fee)? Please provide the rationale for your views.

x) 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 CMP448 approach across to demand projects, including but not limited to a new Trigger Threshold and new Trigger 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 Trigger 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.

Workgroup Consultation Question 14: Do you agree with the Proposer's approach to **demand projects**? Please provide the rationale for your views.

xi) PCF Scenarios

The Workgroup were presented with twelve separate scenarios around how the Proposer envisages the PCF would be activated. These are available in full at Annex 4 of this Workgroup report.

The Workgroup would appreciate views on these twelve scenarios and whether industry have any views or feedback on these illustrative examples.

Workgroup Consultation Question 15: Do you agree with the PCF (Progression Commitment Fee) scenarios put forward by the Proposer? Please provide the rationale for your views.

xii) NESO position on "Queue Health"

The Workgroup reviewed the Terms of Reference following discussions and feedback at Workgroup meeting 1. Members sought clarity from the Proposer in regards to the terminology included in the Terms of Reference, namely *queue health*. The 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 Trigger 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 sums[45]. 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.

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 2) 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.

Workgroup Consultation Question 16: Do you agree with definition of Queue Health put forward by the Proposer? Please provide the rationale for your views.

xiii) **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 ENA Strategic Connections Group: TMO4+ Impacts & Assessments Sub-Group;
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. The NESO will work with DNOs and

[45] As set out elsewhere in the CUSC.

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. 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 consultation and the Workgroup will consider any output (of that engagement) that NESO provides to the Workgroup. The Workgroup is also keen to obtain industry views as part of this consultation process. Please answer the below question to provide any views that you have on this matter.

Workgroup Consultation Question 17: Do you agree that the proposal adequately takes into consideration the interface with embedded and distribution connected projects? Please provide they rationale for your views.

xiv) Consideration of other options

At the time of this Workgroup consultation publication, no Workgroup Alternative proposals have been officially tabled. However, Workgroup members have suggested that they were considering a number of potential alternatives approaches post this Workgroup consultation and wish to use this consultation as an opportunity to gain industry views (on these potential alternative approaches).

Potential Alternative 1

PCF not applied to some or all Embedded Projects

In this Potential Alternative the PCF would not be applied to some, or all, Embedded Connections.

Rationale

The CMP448 defect is caused by the two-year period between a project's Gate 2 connections queue entry (when it accepts the Gate 2 Offer) and User Progression Milestone 1: Initiate statutory Consents and Planning permission. Embedded projects have different connections queue management milestones applied and the Distribution Milestone 1 is two months after acceptance of their Offer (from the DNO /transmission connected iDNO). So once an Embedded project attains the Gate 2 Offer, it will have two months to meet the Milestone or be terminated. Even allowing for the full tolerance period that applies to the Distribution Milestone, this extends the period to at most eight months. In these situations, the milestones trigger more quickly and therefore will this

drive the customer behaviour and the outcome will be met (i.e. M1 is met or the distribution connected projects withdrawn or are terminated) before this process would be completed. This would therefore cause unnecessary cost for embedded projects to secure the PCF for a very short period of time which feels disproportionate.

In some cases, Embedded projects need to carry out an Environmental Impact Assessment (EIA) before they can submit planning application. In these cases, the project must have engaged third parties to commence the EIA work within two months and submit the planning application within 14 months. So, whilst the project must progress and commit funds within two months, the M1 milestone is not met till later.

This potential alternative (to the Original) approach for embedded could therefore be to:

- Exclude, from being liable for the PCF, all Embedded Projects for simplicity only (or it may also exclude Embedded Projects where an EIA is not required).

Potential Alternative 2

In this Potential Alternative, the concept (within the Original) of including replacement projects within six months to assess the MW capacity against the Trigger Threshold would be removed. This may need consideration of the proposed level (6,000MW) of the Trigger Threshold if this potential alternative was progressed.

Rationale

The principle of replacement MW capacity is to not count the MW capacity associated with projects that are replaced with less than a year's impact on the connection date from the assessment of the Trigger Threshold. Whilst this has merit in principle, it does add a lot of extra complexity to the assessment. The solution will need extra detail to ensure that a fair and transparent process is in place.

In addition, with the potential to move to Gate 2 application windows (if CMP434 and CMP435 are approved), it is unclear how any replacement projects will be identified. If there is no visibility of potential terminations, then it will be down to luck if any replacement projects happen to have applied in the same area with similar characteristics (to the project that terminated). It is conceivable therefore that very few projects will actually be judged as replacement projects and therefore as a Minimum Viable Product, this feature could be removed.

Potential Alternative 3

This potential alternative considers a different background when assessing *queue heath* which in turn governs the Trigger Threshold and the applicability of the PCF to projects. The Original proposal uses the connection queue based on the whole GB network and

has proposed a cumulative level of 6GW as the level of the Trigger Threshold to apply the PCF. Once triggered it would affect any relevant project connecting anywhere on the GB network. This potential alternative would apply the PCF to projects wanting to connect according to the which of the 18 ETYS (Electricity Ten Year Statement) zones the project was located in. The Trigger Threshold and its applicability would be calculated within each of the 18 ETYS zones and would apply within that ETYS zone. The cumulative 6GW (as proposed in the Original) would be set proportionately within the 18 ETYS zones against the current background in combination with the existing Gate 2 connections queue TEC. The 6GW for the whole of the GB network would therefore be superseded, in this solution, as the Trigger Threshold would be on an ETYS zone basis.

Rationale

This potential alternative allows a level of flexibility which is absent in the Original proposal, which is a one size fits all approach. Whilst the Original takes no account of technology type, or of a preponderance of one type of technology in a particular area which may not represent a reasonable picture of the GB connections queue as a whole. This potential alternative avoids this by allowing for a particular 'hotspot' which can equally reflect total TEC in the connections queue and indirectly technology to be targeted into that area rather than give signals to projects in other areas that don't have the problem.

This flexibility would better reflect CP30 requirements especially where the concept of 'need' as outlined by DESNZ/Ofgem in recent statements. Longer term (as per lead time) projects in this solution are less likely to be liable for the PCF due to areas where projects are likely to be fast tracked according to 'needs' criteria.

Potential Alternative 4

This potential alternative would introduce a discount (of a given % of the PCF which has yet to be determined) if the customer self-terminates, as opposed to being terminated by NESO upon failing to meet Milestone 1.

Rationale

This potential alternative does not propose to reduce the magnitude of the PCF, so developers will still need to fund the security to the full value[46] (that is up to £10,000/MW, if the PCF is activated). They will also be liable for the full value of the PCF if their project is terminated for failing to meet M1, so the deterrent is not diminished. However, the discount will encourage and incentivise developers to self-terminate, meaning more MW capacity within the connections queue will be made available to new, viable projects at an earlier stage. The discount will apply at all stages of the PCF fee increases,

[46] That is up to £10,000/MW, if the PCF is activated, in £2,500/MW increments per each 6 months.

but this will be most beneficial in relation to projects which are on the maximum level of the fee, namely, £10,000/MW, as without this discount these projects would no longer have any incentive to review their viability and self-terminate earlier than the M1 milestone.

Potential Alternative 5

This potential alternative would seek to revise the Original solution by applying the PCF to the health of each queue within the technical Annex of the DESNZ Clean Power 2030 Action Plan (i.e. technologically and in some instances geographically) rather than on a single GB-wide basis. This would be done by determining the health of each CP30 'pot' individually and independently from other CP30 pots and applying the PCF accordingly. This potential alternative would also seek to make the PCF more reflective of any CP30 delivery risk due to the status of projects in each of the individual queue, in other words, less progressed projects would be riskier to CP30 than more progressed projects. The exact method of how this would be achieved is still to be developed but examples include;

1. Allowing the PCF £/MW value to increment upwards or downwards based on the health of each individual queue, with *queue health* estimated using the risk of projects that make up the individual queue (e.g. percentage of the queue with planning consent, ease of replace of stalled projects etc).
2. Extending the timeframe period that is relevant for the PCF beyond Milestone M1, possibly up to consent achieved, Final Investment Decision (FID) or construction start[47].
3. Linking the PCF £/MW value to be financially secured by each project to the status/risk of that individual project (i.e. meeting later queue management milestones will result in a lower £/MW PCF level needing to be secured by that project).
4. Introducing an incentive for stalled projects to leave the Gate 2 connections queue before they are removed by queue management.

Rationale

Clean Power 2030 introduces a constraint on the number of projects that can connect, and the severity of this constraint varies by technology and, in some instances, regionally; a single, GB-wide PCF value may under or over-estimate the value of removing stalled projects from the Gate 2 connections queue. This potential alternative

[47] The Chair sought advice from the Code Governance legal team as to whether this would be in scope of the defect set out in CMP448. This is ongoing whilst the consultation is updated.

seeks to minimise the risk to delivering CP30 by aligning the PCF value to the risk created by slow/stalled projects using a broader and more holistic approach than the Original.

Potential Alternative 6

To replace the global Trigger Metric of 6,000MW with technology specific Trigger Thresholds. The PCF would only be activated for those projects in each technology type where the Trigger Threshold has been exceeded (for that technology type). This would require a technology specific Trigger Threshold to be agreed, which could be based on the relative mix of technology types in the Clean Power 2030 action plan, or in the connections queue at any given time.

Example: M1 project terminations for Solar projects exceed the Solar Trigger Threshold [XXX][48] MW, so the PCF is triggered and applied to all the remaining Solar projects (or solar element of hybrid projects) that are in the connections queue which have not met their Milestone M1. In this scenario, any projects for other technologies are not impacted (unless their separate technology Trigger Threshold level is breached). Termination of hybrid projects (with more than one technology) could count towards both Trigger Thresholds.

Rationale

This potential alternative seeks to mitigate the concern that a global Trigger Metric could impose an unreasonably high burden of cost on technology types that are not impacting the poor *queue health*, in particular technology types which take longer to reach M1, who are at risk of being disproportionately impacted by the Original proposal.

Potential Alternative 7

Pause and align with revised M1 dates in Gate 2 offers.

With this potential alternative the PCF would only be applicable (submit security) 1 year before the project's M1 date. This allows developers time to develop their project planning application and de risk 3rd party ecology issues ahead of security / penalty being applied.

This would also allow a mod app/revise TEC before by project developers prior to higher £/MW PCF penalty being imposed.

Rationale

The focus should remain on the purpose and adequate carrot/stick rather than trying to justify a higher level based off % developer DEVEX.

[48] Value not determined

Potential Alternative 8

1. Cap the level of securities that an applicant must post to be the maximum of either (a) the PCF requirement in that 6 month period or (b) the value of securities that an applicant must post for its 'S Curve' liabilities in that 6 month period.
2. Recalculate the PCF £/MW value assuming 14% cost of financing not 8%.

Rationale

The Proposer of CMP448 asserts that the incremental PCF value currently (£2,500/MW step up over two years to £10,000/MW) is sufficient to incentivise parties with a negative NPV to withdraw their projects.

Therefore, this £/MW value is sufficient to drive the required behaviour regardless of the source of the securities obligation.

As such imposing any £/MW value of securities beyond what is required to drive the desired behaviour, is simply an inefficient allocation of cost risk on to genuinely progressing projects. It creates no further social benefit and, as carrying this risk, and securing funds to meet this securities obligation has a cost, it simply means projects incur greater costs that will be passed onto the consumer.

Extensive evidence suggests that the PCF would be entirely financed by equity not debt and so the assumed cost of posting the PCF securities are under forecast with the Original. Therefore, the PCF value (£/MW) should be calculated based on the assumed cost of equity (not cost of debt, as per the Original).

Workgroup Consultation Question 18: Do you have any views on any of the initial potential alternatives considered by the Workgroup? Please indicate which ones you support (or do not support) and where possible please provide rationale.

Draft legal text

Legal text will be drafted after the Workgroup Consultation has been completed.

What is the impact of this change?

Proposer's assessment against CUSC Non-Charging Objectives	
Relevant Objective	**Identified impact**
(a) The efficient discharge by the Licensee of the obligations imposed on it by the Act and by this licence*;	**Positive** The proposal introduces a mechanism that will accelerate the connection of readier

	and/or more viable projects facilitating progress towards net zero targets. 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. 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.
(b) 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;	**Positive** 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.
(c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency **; and	**Neutral**
(d) 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 (c) 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** 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.

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 (subject to the approval of CMP434 and CMP435). This is currently expected to be at the end of calendar year 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.

If CMP434 and CMP435 are not approved, this proposal will be reconsidered.

Date decision required by

A decision date prior to the proposed Gate 2 Offers being issued[49] 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 Trigger Metric and Trigger 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&Cs[1]	☑Other modifications	☐Other

This proposal is reliant on CMP434 and CMP435 which are not approved at time of writing. For the purposes of this proposal, approval of CMP434 and CMP435 has been

[49] This is currently expected to be at the end of calendar year 2025.

assumed. Should CMP434 and/or CMP435 not be approved this proposal will be reconsidered.

CMP446 is an in-flight Modification which seeks to raise the lower Transmission impact threshold from 1MW to 5MW in England and Wales. For the avoidance of doubt, the proposal will apply to all distribution connected generation that go through the TIA (Transmission Impact Assessment) process regardless of the outcome of CMP446.

No interactions with other codes have been identified.

How to respond

Standard Workgroup Consultation questions

1. Do you believe that the Original proposal and/or any potential alternatives better facilitate the Applicable Objectives?
2. Do you support the proposed implementation approach?
3. Do you have any other comments?
4. Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?
5. Do you agree with the Workgroup's assessment that the modification does not impact the European Electricity Balancing Regulation (EBR) Article 18 terms and conditions held within the Code?

Specific Workgroup Consultation questions

6. Do you agree or disagree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding the **duration of the fee**? Please provide the rationale for your views.
7. Do you agree or disagree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding the **profile and timing of the fee**? Please provide the rationale for your views.
8. Do you agree or disagree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding to **the Trigger Metric**? Please provide the rationale for your views.
9. Do you agree or disagree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding **the Trigger Threshold**? Please provide the rationale for your views.

10. Do you agree or disagree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding the **Trigger Activation Governance**? Please provide the rationale for your views.
11. Do you agree or disagree with the current design of the PCF (Progression Commitment Fee) in the CMP448 Original proposal regarding the **£/MW value of the fee**? Please provide the rationale for your views.
12. Do you agree or disagree with the methodology presented to the Workgroup by NESO regarding **safeguarding considerations**? Please provide the rationale for your views.
13. Do you agree or disagree with the current outline for **projects that would be within scope of the PCF** (Progression Commitment Fee)? Please provide the rationale for your views.
14. Do you agree with the Proposer's approach to **demand projects**? Please provide the rationale for your views.
15. Do you agree with the **PCF** (Progression Commitment Fee) **scenarios** put forward by the Proposer? Please provide the rationale for your views.
16. Do you agree with **definition of Queue Health** put forward by the Proposer? Please provide the rationale for your views.
17. Do you agree that the proposal adequately takes into consideration the **interface with embedded and distribution connected projects**? Please provide the rationale for your views.
18. Do you have any views on any of the **initial potential alternatives** considered by the Workgroup? Please indicate which ones you support or do not support and where possible please provide your rationale.

The Workgroup is seeking the views of CUSC Users and other interested parties in relation to the issues noted in this document and specifically in response to the questions above.

Please send your response to cusc.team@nationalenergyso.com using the response pro-forma which can be found on the CMP448 modification page.

In accordance with Governance Rules if you wish to raise a Workgroup Consultation Alternative Request, please fill in the form which you can find at the above link.

If you wish to submit a confidential response, mark the relevant box on your consultation proforma. Confidential responses will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Panel, Workgroup or the industry and may therefore not influence the debate to the same extent as a non-confidential response.

Acronyms, key terms and reference material

Acronym / key term	Meaning
BSC	Balancing and Settlement Code
CAP	Connections Action Plan
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
DESNZ	Department for Energy Security and Net Zero
DNOs	Distribution Network Operators
EIA	Environmental Impact Assessment (EIA)
EBR	Electricity Balancing Regulation
ETYS	Electricity Ten Year Statement
IC	Interconnector Capacity
IDNO	Independent Distribution Network Operator
NESO	National Electricity System Operator
NETS	National Electricity Transmission System
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
SQSS	Security and Quality of Supply Standards
STC	System Operator Transmission Owner Code
T&Cs	Terms and Conditions
TCMF	Transmission Charging Methodologies Forum
TEC	Transmission Entry Capacity
TIA	Transmission Impact Assessment
TNUoS	Transmission Network Use of System
TO	Transmission Owner
WACC	Weighted Average Cost of Capital

Annexes

Annex	Information
Annex 01	CMP448 Proposal Form
Annex 02	CMP448 Terms of Reference Post v2.0
Annex 03	CMP448 Urgency Letters
Annex 04	CMP448 Example Scenarios
Annex 05	CMP448 Capacity Reduction Example Scenarios