

CUSC Modification Workgroup Consultation		At what stage is this document in the process?												
<h1 style="color: #00a651;">CMP288</h1> <p>Explicit charging arrangements for customer delays and backfeeds</p> <h1 style="color: #00a651;">& CMP289</h1> <p>Consequential change to support the introduction of explicit charging arrangements for customer delays and backfeeds via CMP288.</p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; border-radius: 5px; text-align: center;">01</td> <td style="border: 1px solid black; border-radius: 5px; padding: 2px;">Proposal Form</td> </tr> <tr> <td style="border: 1px solid black; border-radius: 5px; text-align: center; background-color: #00a651; color: white;">02</td> <td style="border: 1px solid black; border-radius: 5px; padding: 2px; background-color: #00a651; color: white;">Workgroup Consultation</td> </tr> <tr> <td style="border: 1px solid black; border-radius: 5px; text-align: center;">03</td> <td style="border: 1px solid black; border-radius: 5px; padding: 2px;">Workgroup Report</td> </tr> <tr> <td style="border: 1px solid black; border-radius: 5px; text-align: center;">04</td> <td style="border: 1px solid black; border-radius: 5px; padding: 2px;">Code Administrator Consultation</td> </tr> <tr> <td style="border: 1px solid black; border-radius: 5px; text-align: center;">05</td> <td style="border: 1px solid black; border-radius: 5px; padding: 2px;">Draft CUSC Modification Report</td> </tr> <tr> <td style="border: 1px solid black; border-radius: 5px; text-align: center;">06</td> <td style="border: 1px solid black; border-radius: 5px; padding: 2px;">Final CUSC Modification Report</td> </tr> </table>		01	Proposal Form	02	Workgroup Consultation	03	Workgroup Report	04	Code Administrator Consultation	05	Draft CUSC Modification Report	06	Final CUSC Modification Report
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<p>Purpose of Modifications:</p> <p><i>CMP288</i> - To introduce explicit charging arrangements to recover additional costs incurred by Transmission Owners and TNUoS liable parties as a result of transmission works undertaken early due to a User initiated delay to the Completion Date of the works, or to facilitate a backfeed.</p> <p><i>CMP289</i> - To introduce changes to non-charging sections of the CUSC to support the introduction of explicit charging arrangements to recover additional costs incurred by Transmission Owners and TNUoS liable parties as a result of transmission works undertaken early due to a User initiated delay to the Completion Date of the works, or to facilitate a backfeed.</p>														
	<p>This document contains the discussion of the Workgroup which formed in May 2018 to develop and assess the proposal. Any interested party is able to make a response in line with the guidance set out in Section 6 of this document.</p> <p>Published on: 11 January 2019</p> <p>Length of Consultation: 15 Working Days</p> <p>Responses by: 5:00 pm 31 January 2019</p>													
	<p>Proposers View:</p> <p>High Impact: Electricity Transmission Owners; Developers and existing parties with a construction agreement relating to generation, interconnector or demand connections.</p>													
	<p>Low Impact: Parties paying TNUoS</p>													

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Timetable		
The Code Administrator recommends the following timetable:		
Initial consideration by Workgroup	March – December 2018	
Workgroup Consultation issued to the Industry	January 2019	
Modification concluded by Workgroup	February 2019	
Workgroup Report presented to Panel	March 2019	
Code Administration Consultation Report issued to the Industry	April 2019	
Draft Final Modification Report presented to Panel	May 2019	
Modification Panel decision	May 2019	
Final Modification Report issued the Authority	June 2019	
Decision implemented in CUSC	August 2019	

1 About This Document

This report contains the discussion of the Workgroup which formed in May 2018 to develop and assess the proposal.

Section 2 (Original Proposal) and Section 3 (Proposer's solution) are sourced directly from the Proposer and any statements or assertions have not been altered or substantiated/supported or refuted by the Workgroup. Section 5 of the Workgroup contains the discussion by the Workgroup on the Proposal and the potential solution.

The CUSC Panel detailed in the Terms of Reference (ToR) the scope of work for the CMP288 and CMP289 Workgroup and the specific areas that they should consider.

The table below details these specific areas and where the Workgroup have covered them or will cover post Workgroup Consultation.

The full Terms of Reference can be found in Annex 1.

Table 1: CMP288/289 ToR

Specific Area	Location in the report
a) Transition implementation arrangements	Page 42-43
b) Asset identification and asset access	Page 37-39
c) Paying for delay for User	Page 21-26
d) WACC publication	Page 28
e) Information flow ahead of commitment stage gates	Page 35-37
f) Assessment of materiality of the costs	Page 13-21

Glossary	
Advance Capital Cost Contribution	An alternative to paying for connection Assets over an economic lifetime on an annuatised basis (e.g. 40 years) in which all or part of the capital element is paid in advance of connection.
Attributable works	Attributable works are those works specified in a Construction Agreement on which the local element of the Cancellation Charge (the Attributable Cancellation Charge) would be based for a generator. This includes the works up to and including those at an existing Main Integrated Transmission System (MITS) node, where a MITS node is a substation with more than 4 transmission circuits or 2 transmission circuits and a Grid Supply Point.
Contractual recovery of costs	Where the cost of Connection Assets are recovered over their economic lifetime as annual annuatised payments

Cancellation Charges	The charges for which Generation, Interconnector Users, and (for Embedded Generation) DNOs become liable upon reduction in Transmission Entry Capacity or Termination of a Construction Agreement. This is made up of a project specific Attributable Cancellation Charge and a Wider Cancellation Charge.
Enabling Works	The minimum transmission reinforcement works which need to be completed before a generator can be connected to and given firm access to the transmission network (i.e. between the generator and the nearest suitable point on the network), as set out in Section 13 of the CUSC (covered in Appendix H Part 1).
Final Sums	The charges for which Demand Customers become liable upon Termination of a Construction Agreement, based upon project specific costs.
Local Enabling Works	Those Enabling works up to a Main Integrated Transmission System substation (a substation with more than 4 transmission circuits).
Wider Enabling Works	Those Enabling works that are not Local Enabling Works
Incremental one-off costs	Additional one off costs, caused by changes in planned works.
Liquidated Damages	Arrangements under which the TO (via the SO) makes payments to a developer in the event that TO assets required to deliver a connection are Commissioned later than the contracted Completion Date.
Other Wider Works	Other transmission reinforcement works (i.e. not Enabling Works) associated with reinforcing the network to accommodate the new generating station and ensure compliance with the NETS SQSS.
RIO Price Control	The regulatory regime under which regulated gas and electricity network companies are funded.
Shared Works	Works required to facilitate more than one customer's project.
Sole Use Works	Works required to facilitate one customer's project.
Totex	Total Expenditure
Totex Incentive Mechanism	The incentive mechanism that determines the share of any difference between network companies' costs and allowances faced by the network company and consumers, as described in part 3 of section 5 of this report.
Wider Works	Wider Enabling Works and Other Wider Works.

2 Original Proposals

CMP288:

Defect

There are currently no explicit charging arrangements to recover additional costs incurred by Transmission Owners and TNUoS liable parties as a result of transmission works undertaken early due to a User requested delay to the Completion Date of the works or backfeed.

What

Section 14.4 of the CUSC provides for one-off charges to be recovered by the SO where the transmission licensee is required to carry out one-off works. The charging methodologies do not explicitly state that costs incurred as a result of a delay to a contracted Completion Date or a backfeed requested by a customer are included in these charges.

Section 14.15 (e.g. 14.15.130) states the total amount to be recovered through TNUoS. Additional TO costs resulting from delays or backfeed provision are recovered through TNUoS. No mechanism currently exists within the CUSC to ensure these costs are funded by the requesting party instead of being recovered through TNUoS.

Why

When a User requests a backfeed or delays their Completion Date within a construction agreement the TO may incur additional costs. These take two forms: incremental one-off costs (e.g. demobilisation and remobilisation costs); and additional financing of costs incurred due to a delay in its allowances. Due to the Totex Incentive Mechanism within the RIIO Price Control framework, a proportion of the financing costs are shared through TNUoS.

The existing CUSC wording does not explicitly state how the TO costs are to be recovered from the delaying party, and does not adequately target the recovery of financing costs at the delaying party.

How

It is proposed that Section 14.4 of the CUSC is amended to explicitly include incremental costs and financing costs incurred by a TO as a result of a delay can be recovered via a one-off charge.

Additionally, Section 14.4 should be amended to enable costs resulting from a delay which a TO is allowed to recover through its Price Control to be targeted the delaying party instead of being recovered through TNUoS. To account for this, the TNUoS Revenue Recovery target should be adjusted to account for this.

CMP289:

Defect

There are currently no explicit charging arrangements to recover additional costs incurred by Transmission Owners and TNUoS liable parties as a result of transmission works undertaken early due to a User initiated delay to the Completion Date of the works, or to facilitate a backfeed. Parts of the CUSC framework outside of Section 14 are required to rectify this.

What

To support changes to Section 14 to implement proposed delay and backfeed charge arrangements, there is need to modify other areas of the CUSC, e.g. to reflect charges and provide supporting information within construction agreements (Schedule 2 Exhibit 3 – Construction Agreement).

Why

When a User requests a backfeed or delays their Completion Date within a construction agreement the TO may incur additional costs. These take two forms: incremental one-off costs (e.g. demobilisation and remobilisation costs); and additional financing of costs incurred due to a delay in its allowances. Due to the Totex Incentive Mechanism within the RIIO Price Control framework, a proportion of the financing costs are shared through TNUoS.

The existing CUSC wording does not explicitly state how the TO costs are to be recovered from the delaying party, and does not adequately target the recovery of financing costs at the delaying party.

How

Schedule 2 Exhibit 3 of the CUSC should be updates to reflect the charges proposed and provide supporting information within construction agreements. Other changes may be required, if identified as the proposal is developed.

3 Why Change?

CMP288:

There are two types of cost a TO may incur upon a delay in a customer's Completion Date or provision of a backfeed:

- i) Incremental costs – additional one-off costs that occur as a direct result of the customer request (e.g. site demobilisation and remobilisation costs); and
- ii) Financing costs – additional costs required in financing spend for additional years due for works being undertaken earlier than they would should the request not be made. TNUoS paying parties also face additional financing costs as a result of the Totex Incentive Mechanism (TIM).

The CUSC already allows for the SO to recover non-standard incremental costs incurred by TOs as a result of a customer's request via a One-Off Charge. However, the CUSC wording does not explicitly state that this includes the recovery of the above TO costs.

Under the RIIO price control, TOs receive allowances based upon providing defined outputs. For non-boundary infrastructure required to facilitate both demand and generation customer connections, these are set in the year of the customer connecting and transmission charges commencing (the "output year"). The resulting allowances are profiled leading up to the output year to match that of typical expenditure. Assuming total expenditure and allowance are equal, this ensures for a typical investment that the TO costs and allowance are approximately aligned.

To incentivise a TO to minimise expenditure on its investments, its total expenditure (Totex) is subject to a post-tax Totex Incentive Mechanism (TIM), in which the TO shares a proportion of the difference between its expenditure and allowances. NGET benefits from 47% of the savings it realises, but bears 47% of the cost. In each case the remaining 53% is passed to consumers through TNUoS.

In the case of a customer delay or work being undertaken early to provide a backfeed, the difference between allowance and expenditure is introduced by costs being incurred earlier than they would have otherwise been. This difference is output is subject to TIM, resulting in the associated financing costs being shared between the TO and TNUoS paying parties. Whilst one-off charges provide TOs with a route to recover its costs from the party whose request triggered the cost, no mechanism exists to ensure the resulting TO allowed revenue resulting from TIM is recovered cost reflectively.

CMP289:

To support the implementation of the new charging arrangements, supporting changes will be required to non-charging areas of the CUSC in order to allow for charges within Construction Agreements, and provide Users with additional transparency of potential value of charges. The need for other changes may also be identified as the proposed charging mechanism is developed by the Workgroup.

4 Solutions

Section 4 (Proposer’s solution) are sourced directly from the Proposer and any statements or assertions have not been altered or substantiated/supported or refuted by the Workgroup. Section 5 of the Workgroup contains the discussion by the Workgroup on the Proposal and the potential solution.

CMP288:

It is proposed that Section 14.4 of the CUSC is amended to explicitly include incremental costs and financing costs incurred by a TO as a result of a delay can be recovered via a one-off charge. This would add transparency to the existing arrangements, helping Users understand potential liabilities.

In the case of financing costs, following a request for backfeed or to delay, a charge would be calculated by the SO using standard formulae to be added to Section 14.4 to calculate a charge to recover the cost incurred based upon the weighted average cost of capital of the relevant TO(s) and TO provided cost information. This would reflect the full incremental financing cost associated with the request (including that which would currently recovered via TNUoS).

The TNUoS Revenue Recovery target (described in section 14.15) shall be adjusted in the calculation of annual TNUoS tariffs to reflect the difference between the full financing charge and the financing cost incurred by the TO recovered in the previous charging year, effectively redirecting financing costs from TNUoS to the party requesting the delay or backfeed charge.

CMP289:

To support the implementation of the new charging arrangements to recover costs associated with a delay in a Completion Date or backfeed, supporting changes will be required to non-charging areas of the CUSC.

In order to allow for charges within Construction Agreements, it is proposed that the terms of Schedule 2 Exhibit 3 are updated, and an additional appendix added to specify the value of the proposed charges. To provide additional transparency of potential value of charges, it is also proposed to modify Schedule 2 Exhibit 3 to provide periodic reports of incurred and forecast expenditure to Users in facilitating their connection.

5 Workgroup Discussions

The Workgroup convened 6¹ times between May 2018 and December 2018 to discuss the perceived issue, detail the scope of the proposed defect, devise potential solutions and assess the proposal in terms of the Applicable CUSC Objectives. The Workgroup will in due course conclude these tasks after the consultation, taking into consideration any responses that are received.

The Proposer used a number of presentations and examples to help clarify and facilitate these discussions, this material can be found on the National Grid ESO Website².

1. Explanation of the costs CMP288 and CMP289 are seeking to recover

- 1.1. The Proposer explained that there were currently no explicit charging arrangements to recover additional costs incurred by Transmission Owners and TNUoS liable parties resulting from User requests for transmission work to be carried out early (backfeeds) or for the completion date of the works to be delayed (delays). The two additional costs that can occur in both these situations are:
 - Incremental costs, as a direct result of the request (e.g. demobilisation /remobilisation); and
 - Financing of investment undertaken earlier/later than would otherwise be the case.
- 1.2. The Proposer explained that whilst one-off charges are currently being utilised to recover these costs, having more explicitly defined charges would aid transparency and help facilitate their recovery. The Proposer highlighted that should these costs not be recovered; a proportion will be borne by TNUoS paying parties and CMP288 and 289 therefore ensures that these costs will be targeted to the party requesting the party requesting the delay or backfeed rather than to consumers.
- 1.3. The costs CMP288 is seeking to recover were previously discussed as part of the Workgroup for CMP249³. The Workgroup noted that it had been difficult to establish what the additional financing costs were as part of the development of CMP249. The Proposer provided an overview of the costs that can occur, these details can be found within the following sub-sections. To provide additional transparency, the Workgroup requested that the Proposer also provide details of the impact of the defect. This is also covered later within the document.

¹ The Workgroup met on the 16th May 2018, 22nd June 2018, 16th July 2018, 6th August 2018, 18th September 2018, 14 December 2018.

² <https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/explicit-charging-arrangements-customer>

<https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/consequential-change-support-introduction>

³ CMP249: Clarification of Other Charges (CUSC 14.4) – Charging arrangements for customer requested delay and backfeed

2. Incremental One-off Costs

- 2.1. The Proposer explained that incremental costs as a result of a delay/backfeed were already being recovered through One-off Charges, but felt this could be made more explicit within the wording of the CUSC⁴. By adding additional text along the lines of “which includes incremental costs as a result of a User requested delay/backfeed”. The Workgroup discussed if this change was needed if the current process already allowed for the recovery of these costs. The Proposer explained that it would be a minimal change that would clarify the types of charges which are to be included within the description of one off charges.
- 2.2. The Workgroup discussed if an exhaustive list of one off costs relating to a delay or backfeed needed to be included within the CUSC. Several Workgroup members felt that if a list is to be included it should be exhaustive otherwise it will bring further uncertainty. The Proposer and National Grid ESO representative stated it was not possible to create an exhaustive list and that it would prevent the recovery of a cost that is not envisaged by the Workgroup when compiling the list. Several Workgroup members disagreed, stating that National Grid were aware of the steps and activities needed to deliver a project such as demobilisation, remobilisation and the costs relating to planning permission, it is these activities that should be included within an exhaustive list, as this will help generators understand their risk and potential liability. The Proposer highlighted that such costs would be specific to each project, and these would be discussed prior to the offer resulting from the request for a backfeed/delay being made, and included in the modified agreement. In addition, the increased cost data and milestone transparency proposed under CMP289 should provide early sight of works that may need to be re-undertaken upon delay. The Workgroup considered if a list of example one off delay costs should be created instead, rather than an overall exhaustive list. The Proposer supported this approach, in principle, if stakeholders believed it would provide additional transparency without introducing confusion. The Workgroup concluded that a question needed to be added to the Workgroup Consultation asking if the wording of the CUSC should be amended, and whether stakeholders would welcome a list of examples of delay and backfeed-related one off costs being included.
- 2.3. The Workgroup questioned how they could take comfort that the incremental costs were correct and that Transmission Operators (TOs) were making the correct decision to demobilise or remobilise. The Proposer explained that Ofgem require TOs to submit annual Regulatory Reporting Packs (RRP) which include details of its expenditure on each scheme⁵, allowing it to scrutinise the costs incurred. Each year, Ofgem produces a

⁴ CUSC Section 14, paragraph 14.4.2,

https://www.nationalgrideso.com/sites/eso/files/documents/CUSC_SECTION_14_V1%2022_%2023%20August%202018_0.pdf

⁵ RRP Table 4.2 requires a scheme level cost profile, output description and asset breakdown. The reporting requirements are specified in Ofgem’s latest Regulatory Instructions and Guidance document:

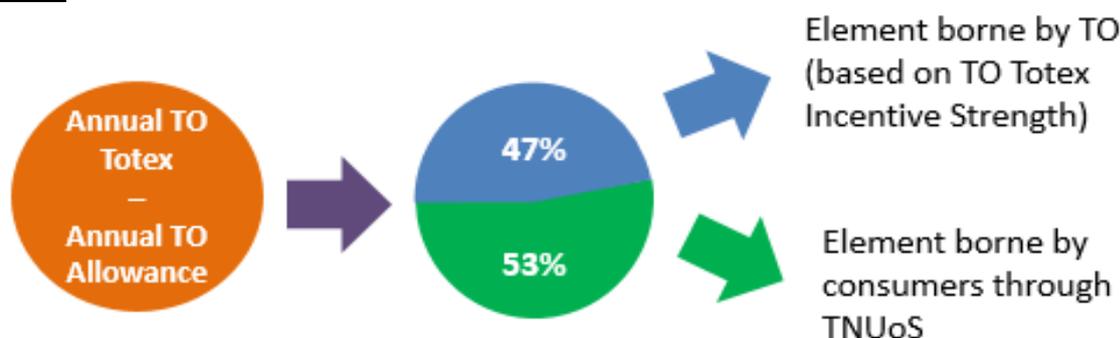
https://www.ofgem.gov.uk/system/files/docs/2018/03/riio-t1_electricity_transmission_rigs_v5.3_tracked_changes.pdf

report⁶ following its analysis of the RRP which should provide third parties comfort that the costs each TO incurs are economic and efficient.

3. Financing Costs

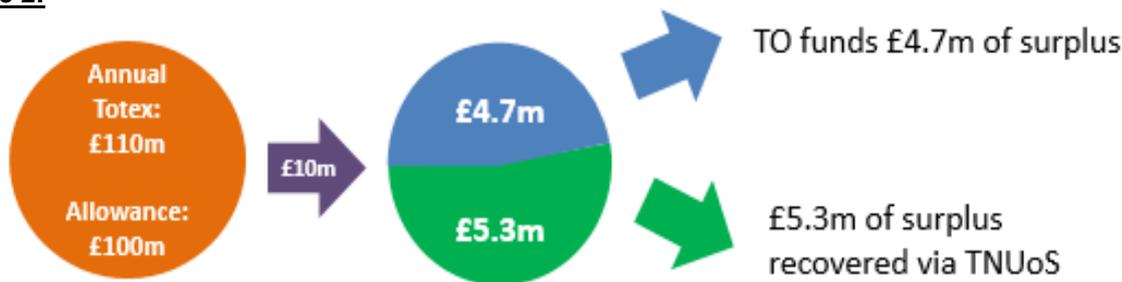
3.1. To explain where the financing costs materialise, the Proposer used Figure 1 below to explain the Totex Incentive Mechanism (TIM) for TOs under the RIIO Price Control. Under this mechanism, a TO will share the difference between its Total Expenditure (Totex) costs and allowed expenditure on an annual basis. Currently, under RIIO-T1, National Grid’s TO business picks up 47% of the difference, with the remaining 53% being picked up by consumers through TNUoS charges. For the Scottish Power Energy Networks and Scottish Hydro-Electric Transmission TO businesses, the sharing ratio is 50:50.

Figure 1:



3.2. The Proposer highlighted that the whole point of the Totex Incentive Mechanism (TIM) is to incentivise TO’s to try and find efficient ways to invest in its network, including customer connections. The Proposer illustrated this further using the example shown below in Figure 2. This shows that under the National Grid price control if there is a £10m difference between allowance and expenditure in a given year, then the TO will fund £4.7m of this difference with the remaining £5.3m being recovered through TNUoS.

Figure 2:



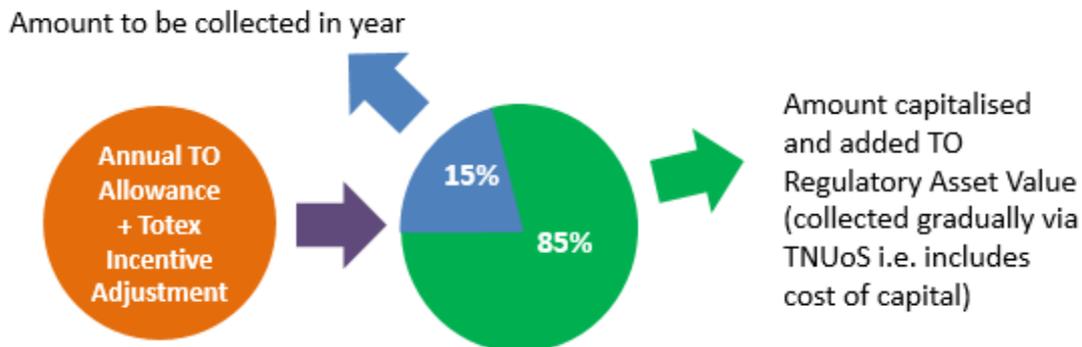
3.3. The Proposer used Figure 3 below to explain how the recoverable output from the Totex Incentive Mechanism (53% in figure 1) is added to the allowance, and then fed into the price control’s Capitalisation Mechanism. For the National Grid TO, 15% of the resulting amount is recovered within year via its allowed revenue, and is referred to as “fast money” (10% for Scottish TOs). This is a proxy that represent the proportion of Totex that

⁶ Ofgem’s RIIO-ET1 Annual Report

https://www.ofgem.gov.uk/system/files/docs/2017/12/riio_transmission_annual_report_2017_final_1.pdf

is made up of operational expenditure. The remaining 85% (90% for Scottish TOs), referred to as “slow money” is capitalised and added to the TO’s Regulatory Asset Value (RAV) and collected gradually over the next 45 years. As TNUoS tariffs are set ahead of the TO revenue being set for the year, it is possible for there to be a difference between that collected and that allowed. Any difference is collected in a later year via the revenue correction factor (K) adjusted for interest accounting for the timing difference.

Figure 3:



- 3.4. The Proposer explained that TO allowances are phased over a number of years up to delivery of an output (e.g. a generation or demand connection), with the delivery of the output locking in the allowance for each year. The intention of this phasing is to reflect the profile of the expenditure required to deliver the output. In the event of a customer delay or backfeed requirement the expenditure and allowance can become out of synch, with expenditure occurring in advance of the allowance.
- 3.5. The Proposer explained that where a delay occurs or backfeed is provided, the TIM mechanism currently allows the TO recover part (e.g. 53%) of the annual difference between expenditure and allowance that is created as a result. This means that the spend is reflected in TNUoS charges earlier than would have been the case had the User originally applied for the revised connection date. The remaining amount (e.g. 47%) would be funded by the TO until the resulting allowance is provided.
- 3.6. The Proposer stated that it was not appropriate for the cost of a delay or backfeed resulting from a single User’s request to be shared by TOs and wider TNUoS paying parties (and in turn consumers), and instead this should be funded by the requesting party. It is the Proposer’s intention that, under CMP288/89, 100% of the costs resulting from a delay or backfeed would be picked up by the developer requesting it. Using the example given in Figure 2, the developer would pay the ESO funding on the £10m if this difference had resulted from a delay or backfeed provision. The TO would charge the ESO for its funding of the £4.7m, and the ESO would pass the remainder (funding on the £5.3m) back into TNUoS, reducing TNUoS.
- 3.7. The Workgroup raised concerns that they did not have any visibility of what the financing costs were made up of, to enable them to make sure they were recovered appropriately. The Proposer confirmed that incremental one off costs will not have any financing costs and can be excluded from this, assuming a charge is paid at the point the cost is incurred. The Workgroup highlighted that this leaves items that are not associated with one off costs such as plant, equipment and land that cannot be used by anyone else or the timing of which is down to the party concerned. The proposer stated it is not just in relation to the purchase of items and a lot of work will need to be financed up until that point like consenting etc.

4. Natural Difference between TIM and Allowance

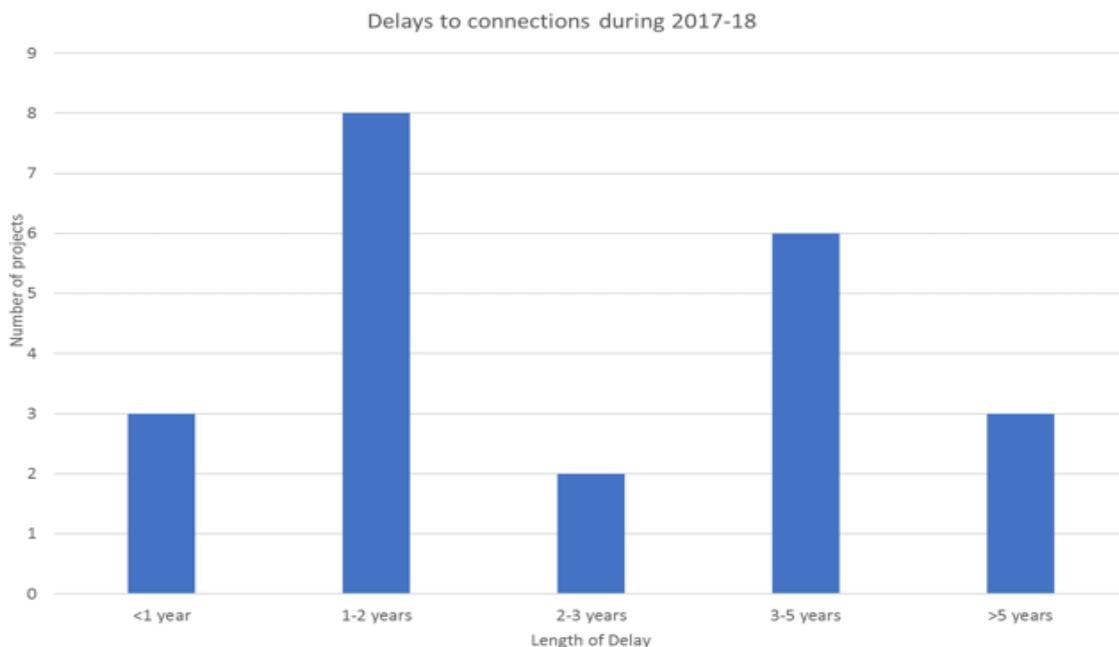
4.1. The Proposer highlighted that there will be occasions where there is a natural difference between Totex and allowance, e.g. connecting to an existing bay would decrease spend but building a new substation to facilitate a connection would increase spend. It is not the Proposer’s intention to reflect financing on this difference under this proposal, they will instead use the underlying financing of the cost of the works as the basis of the delay charge.

5. Scope of Impact

5.1. The Proposer presented the following analysis (Figures 4 to 6) to try and demonstrate the scope of impact of User delays. This is based on the TEC Registers published on the National Grid website on 03/04/2017 and 05/04/2018 (i.e. approximately 1 year apart). The Proposer explained that these examples revealed that there were 22 delays to the connection of Generation Projects in England and Wales totalling 17GW during 2017/18. The examples did not include demand projects or DNO statement of works.

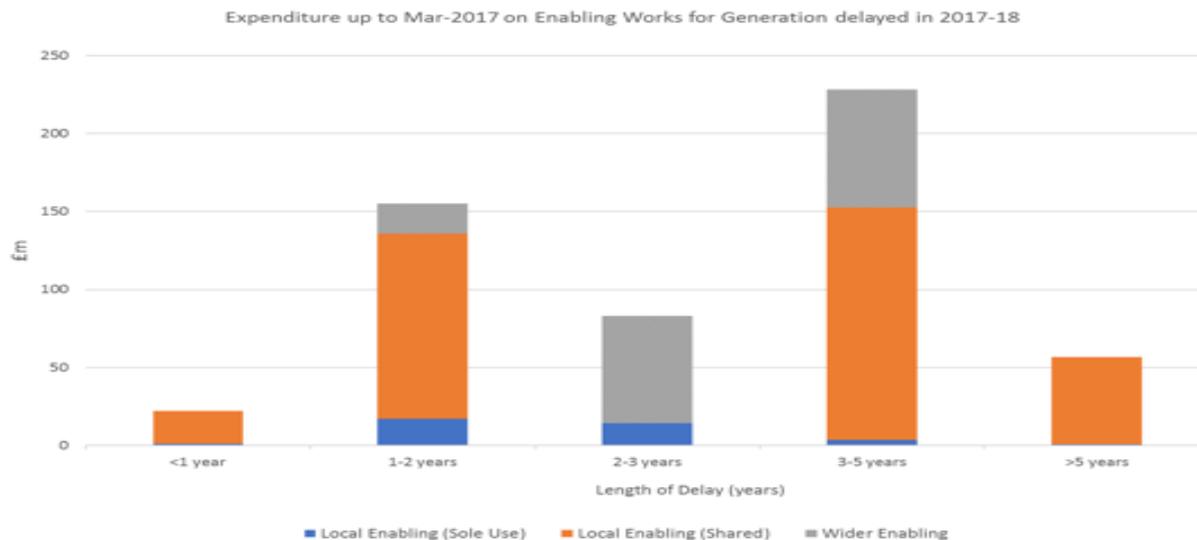
5.2. The Proposer used Figure 4 below to illustrate the length of the delays and to split them down into groups. The Proposer stated that the requested delays ranged from 59 days to 9 and a half years, with nine projects (over a third), delaying for over three years. The Proposer explained that National Grid offer sanction papers revealed that customers had requested 21 of the delays and with the remaining project being delayed by mutual agreement.

Figure 4:



5.3. The Proposer used Figure 5 below to confirm that the total expenditure on transmission investments to facilitate these projects up to 31/03/2017 was £545m. This cost included the 22 projects mentioned above but could also include other project expenditure, such as shared works, multiple phases of works and a large generator driving spend on wider works. The £545m was made up of sole use local enabling works (£37.4m); shared use local enabling works (£344.4m); and wider works (£163.7m).

Figure 5:



- 5.4. The Workgroup highlighted that these examples did not indicate what the spend would have been had the developers had prior knowledge of the delays.
- 5.5. The Proposer acknowledged this point and explained that Figure 5 only showed the expenditure on enabling/wider works up to March 2017. The Proposer also recognised that the orange and grey bars included other projects and that the graph added up to more than £545m because some of those projects shared the same original works.
- 5.6. One Workgroup member highlighted that these charts did not indicate if the spend was made within expected timescales or if developers were aware that the spend was being made. The Proposer highlighted that the TO’s construction milestones were included within the Construction Agreement which should set a baseline for what the developer should expect. Whilst the TO has a responsibility to notify the developer, via the SO, if it deviates from this programme, the developer also has a responsibility to notify the TO if it is likely to delay. It highlighted that the changes proposed under CMP289 (covered later in this document) would make such information clearer.
- 5.7. A Workgroup member suggested that looking at how the timing of the delay and associated expenditure up to the point of delay varies dependent upon whether or not the Trigger Date for each project had passed could signify how frequently expenditure is made in advance of a typical TO build timeframe. The results of this analysis, using the same 22 delayed projects are presented as Figures 4a and 5a, below.
- 5.8. Figure 4a shows that only 3 of the 22 projects that delayed in 2017/18 delayed before the expected trigger date, after which transmission investment would typically be expected to ramp up. Figure 5a shows that the majority of expenditure relating to the three projects delaying prior to the trigger date related to Wider Works (£69m) or shared local Enabling Works (£56m), with £14m spent on sole use local Enabling Works up to March 2017. The Proposer highlighted that all three of the projects concerned involved significant long-lead time investments (e.g. new Transmission routes and/or substations) for which investment prior to the trigger date was required to facilitate the connection of multiple projects.

Figure 4a:

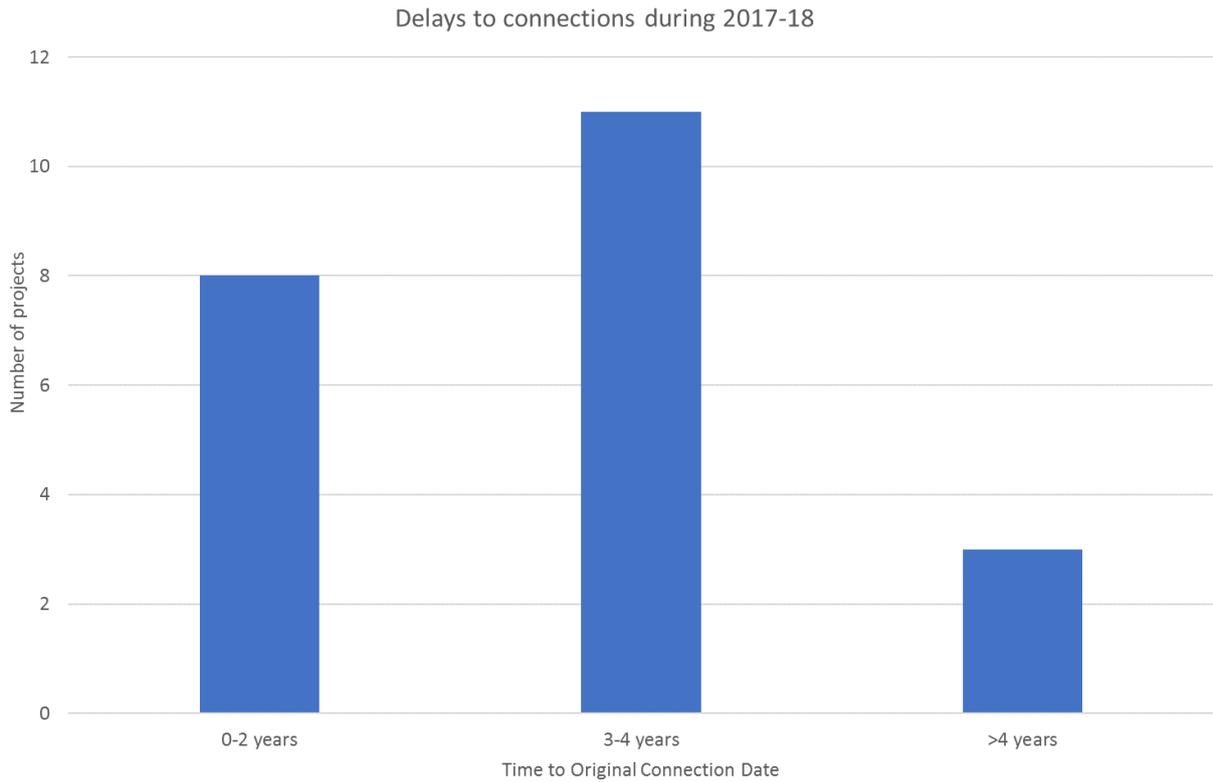
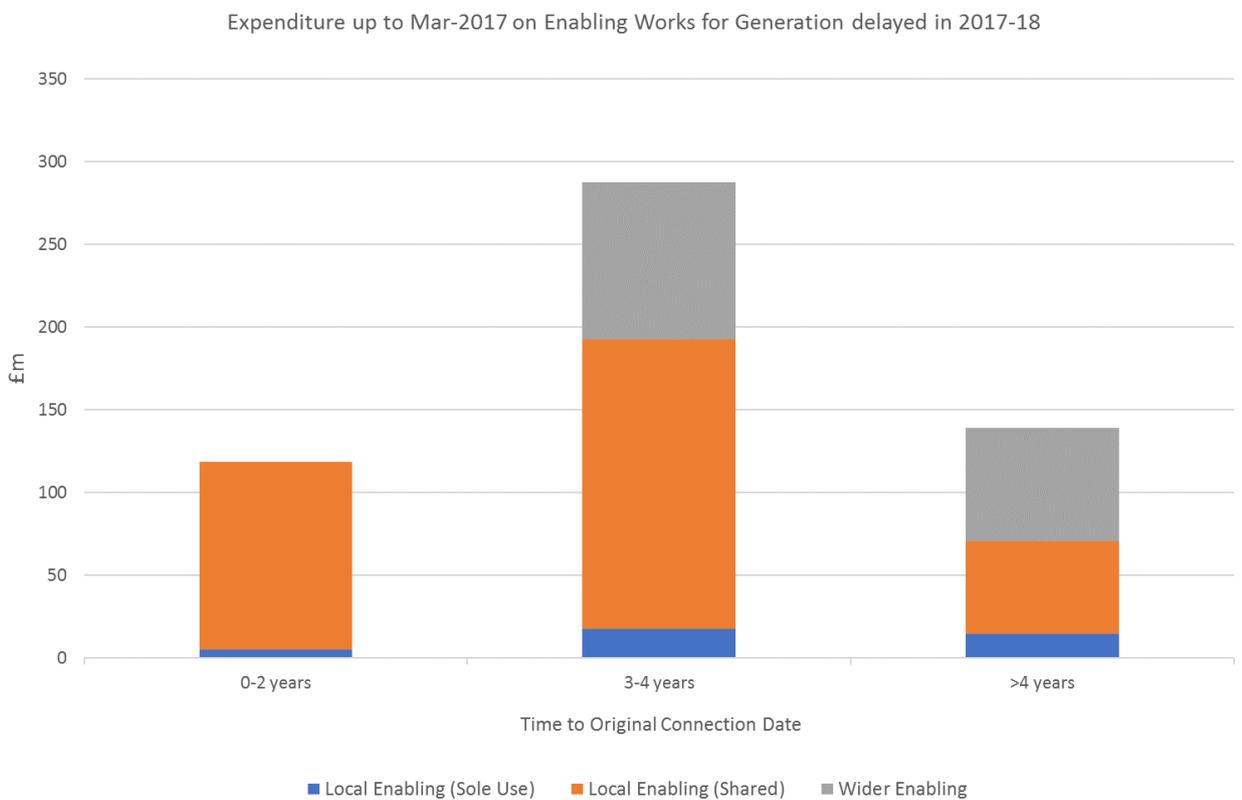
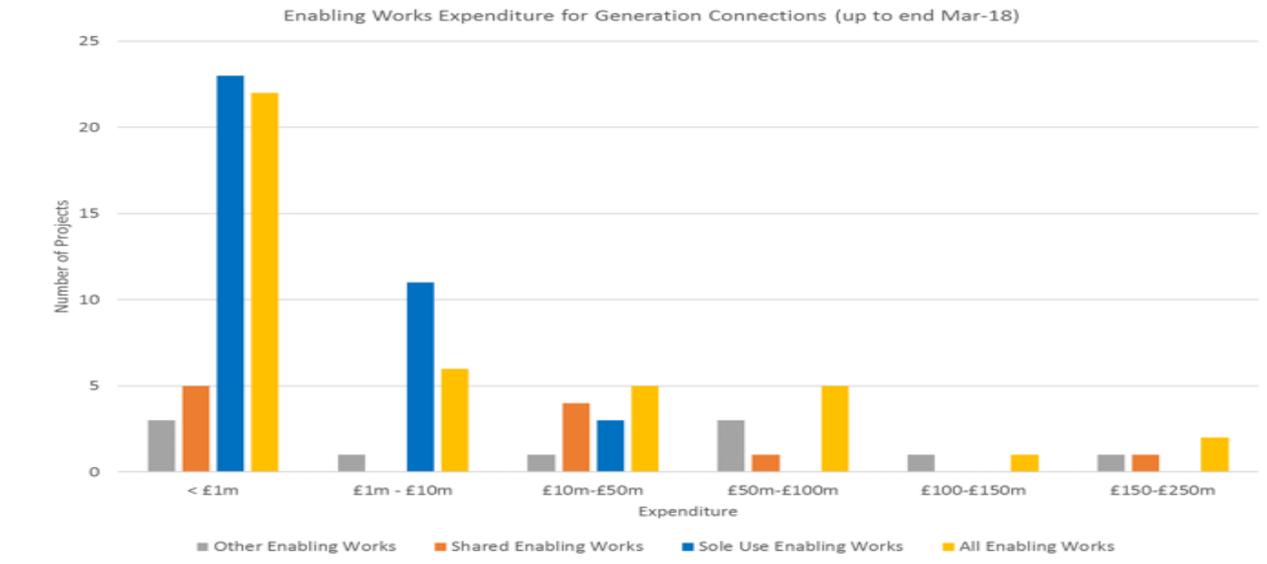


Figure 5a:



5.9. The Proposer used figure 6 below to illustrate the total enabling works expenditure for all live generation connections up to March 2018. This did not include any double counting and was not necessarily the total spend for each of these projects. The nature of generation works meant that there were a lot of smaller connections and therefore less of a need for individual local infrastructure works at times to facilitate those individual generators. A lot of the generation work would have been connecting to existing sub stations or replacing items that were already decommissioned. The Proposer highlighted that the highest spend was £230m, on a wider works project which was driven by an individual generator.

Figure 6:



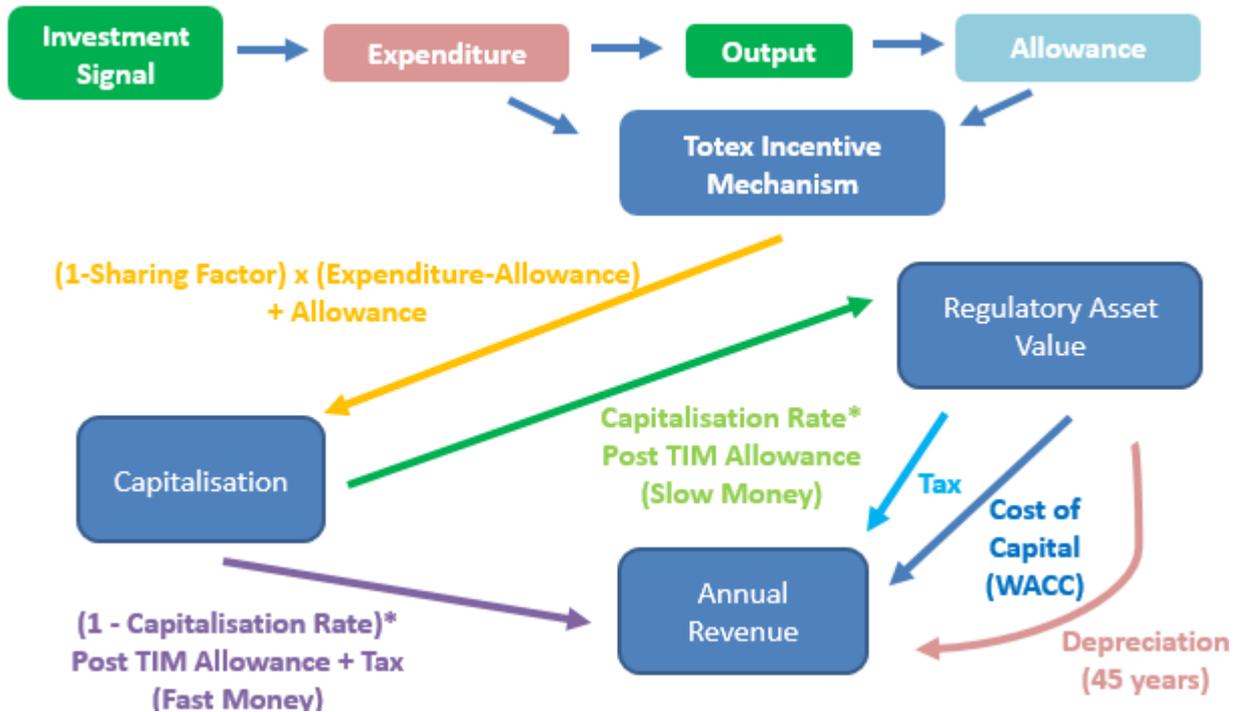
5.10. The Proposer summarised that the analysis indicated that:

- Delays to connections are typically developer driven (21 out of 22 in 2017/18), rather than TO driven (zero in 2017/18, with 1 by mutual consent);
- The length of delay requested can be significant with half of delays requested in 2017/18 (11) being for 2 or more years;
- The majority of delays occur after the point where Transmission Investment is typically expected to ramp up (19 delays beyond the contracted Trigger Date);
- The majority of expenditure prior to delays relates to shared Enabling Works or Wider Works.
- The largest investment driven by an individual generation project up to March 2018 is £230m. Should the generation project be delayed, the TO and consumers would finance this for an additional period. The following section explains this impact.

6. Financial Impact

6.1. The Proposer used Figure 7 below (money flow) to explain how TIM fits into the current Price control and how this income would then be recovered as fast and slow money.

Figure 7:



6.2. The Proposer explained that under the Price Control the first thing that is required prior to an investment being made is an investment signal e.g. someone applying for a connection, or NOA recommendation. The TO will then start to invest and spend money, which should create an output and, as a result of that output the TO will get an allowance. There may be a difference between spend and allowance for that investment, which is compared within the TIM and then proportioned through the sharing factor (explained above). If spend is more than the allowance under the National Grid price control, the TO is allowed to recover 53% of the additional spend. If spend is less than the allowance the TO will share 53% of the saving. This then feeds into the capitalisation mechanism, which has a capitalisation rate of 85% for National Grid. 85% of this will then go into the Regulatory Asset Value (RAV) to be recovered as slow money. The remaining 15% will go straight into the TOs annual revenue to be recovered as fast money along with Cost of Capital on RAV, Depreciation on RAV and Corporation Tax.

6.3. To try and demonstrate the materiality of the additional costs the Proposer used the following simplified examples to illustrate the current interaction between delays, spend and allowance.

E.g. 0 part 1: TO gets funded for full allowance, £10m.

If we assume allowances are not phased and there is a £10m allowance with a £10m spend and a 1 year build. If there is no delay and the TO spends that £10m within that single year to deliver that output then the TO receives the £10m allowance, i.e. spend = allowance.

- TIM adjustment = £0 (£0 (47%) incurred by TO & £0 (53%) shared with consumers)
- Fast Money (15%)⁷ = £1.5m can be recovered in the year (with an adjusted for tax); and
- Slow Money (85%)⁸ = £8.5m is added to the Regulatory Asset Value, with Cost of Capital, Depreciation, and associated tax and recovered annually.

E.g. 0 part 2: If there is a 1 year delay to the allowance, the TO only gets funding for 53% in year 1 and the remainder in year 2.

In year 1 the TO spends £10m, but has an allowance of £0 because of the delay.

- TIM adjusts the £0 allowance up to £5.3m (53%) as spend is greater than allowance.
- Fast Money (15%)⁹ = £0.8m can be recovered in year (with an adjusted for tax); and
- Slow Money (85%)¹⁰ = £4.5m is added to the Regulatory Asset Value, with Cost of Capital, Depreciation, and associated tax and recovered annually
- The TO finances the remaining £4.7m expenditure until year 2 incurring the associated financing cost.

In year 2, the TO receives the £10m allowance for delivering the output.

- TIM adjusts the £10m allowance down by £5.3m (53%) as spend is less than allowance.
- The TO is allowed to recover £4.7m (47%, or £10m - £5.3m), of which:
- Fast Money (15%)¹¹ = £0.7m can be recovered within the year (with an adjusted for tax); and
- Slow Money (85%)¹² = £4.0m is added to the Regulatory Asset Value, with Cost of Capital, Depreciation, and associated tax and recovered annually.

6.4. The Proposer explained that under the current price control allowances are phased. So, the total impact of 1-year delay would actually be £440k. This can be seen within the Delay Charge Model¹³ Example 0 tabs (figures 8 to 10 below)

⁷ 15% of the £10m

⁸ 85% of the £10m

⁹ 15% of the £5.3m

¹⁰ 85% of the £5.3m

¹¹ 15% of the £4.7m

¹² 85% of the £4.7m

¹³ <https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/explicit-charging-arrangements-customer>

6.9. Figure 10 below shows that the difference between the total TO income and financing costs for a 1 year delay with no or full foresight. It confirms the additional costs associated with a 1-year delay would be £440k (£251k of additional TNUoS and £189k of additional financing cost to the TO).

Figure 10:

	Additional TNUoS	Additional TO Financing	Total Impact	Spend prior to delay
Perfect Foresight	0.000	0.000	0.000	0
No Foresight	0.251	0.189	0.440	10

Example 0 | Example 0 Summary | Example 1 | Example 1 Summary | Example 2 | Example 2 Summary

6.10. The Proposer went on to explain several other examples contained within the Delay Charge Model. This included scenarios where there had been partial foresight of a delay half way through a project and no foresight at all. All example scenarios can be found here¹⁴.

6.11. To provide an indication of the impact of the delay to the largest live investment (with spend of £230m as at 31st March 2018), a two-year delay to a £200m investment would result in £16.12m of costs with no foresight, as Figure 11 below illustrates. The additional £9.2m of TNUoS that results would approximately equate to an additional 15p/kW on Demand TNUoS tariffs (assuming 50GW of demand at triad).

Figure 11:

	Additional TNUoS	Additional TO Financing	Total Impact	Spend prior to delay
Perfect Foresight	0.000	0.000	0.000	0
Partial Foresight	4.021	3.039	7.060	84
No Foresight	9.190	6.945	16.135	200

Example 3 Summary | Example 4 | Example 4 Summary | Example 5 | Example 5 Summary

7. Developing a Solution

7.1. The Workgroup discussed a number of issues, which fell into two main areas:

- i) Development of the charge (revenue treatment within the licence, financing rate to be used, tax, depreciation and interaction with other charging mechanisms, delays and backfeeds).

¹⁴ <https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/explicit-charging-arrangements-customer>

<https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/consequential-change-support-introduction>

- ii) Provision of information to make the charge more transparent and provide opportunities for Users to limit the impact

These discussions are documented within the following sub-sections below.

Which customers should these charges apply to?

- 7.2. The Workgroup requested that the Proposer clarify which parties will and will not be affected by the modifications. Will it apply in all cases where a TO incurs additional costs, or only a select number of cases. The Proposer confirmed that the modifications would apply to anyone who has a connection agreement or makes changes to their connection agreement which involves a delay or backfeed. This includes all demand and generation connectees, such as Transmission connected generators, Transmission connected demand (such as Distribution Network Operators (DNO's), and Interconnectors (regardless of ownership); and Embedded customers with a Bilateral Agreement that drive work on the Transmission system. The Proposer confirmed that the delay and backfeed charges would not apply to a TO initiated delay or a TO connected to another TO, as there is no definition of a TO connecting party within the CUSC or connection agreement between TOs. In the view of the Proposer this was out of scope for these modifications and a TO connection would be a matter for the STC and TO Revenues set within the Transmission Licence, and not the CUSC. The Proposer highlighted that besides OFTOs, it was very rare to get a new TO connection to another TO and this was not really an issue. This modification would therefore exclude any incremental or financing costs associated with a TO delay or backfeed.
- 7.3. A Workgroup member disagreed with the Proposer and stated this should apply to a TO initiated delay and if a cross code change was required than an STC modification should be raised at the same time as CMP288 and CMP289. This would ensure there was equality of treatment between parties initiating a delay and if this was not raised it could be seen as discrimination. As the TO would be treating the same situation, where Party A incurs a charge as result of a delay caused by Party B differently. The Workgroup requested that the potential difference in treatment and different views around discrimination be noted within the Workgroup Report.
- 7.4. The Workgroup member went on to question what would happened in the case of a TO caused delay for an OFTO or Onshore TO such as Western HVDC Bootstrap. Would the TO be paying delay charges and would the costs be passed back to the consumer. The Proposer disputed that this was any type of discrimination more that different mechanisms exist within the RIIO Regulatory Regime to achieve an equivalent impact. He highlighted that a restriction on privileged contractual information between the TO and its suppliers meant the TO was limited as to what it could discuss on this specific project. However, the proposer did clarify that Western HVDC Bootstrap was being delivered through a joint venture between TOs so it was not the same situation as a TO initiated delay. The issues concerning the delay of Western HVDC Bootstrap and timing of TO allowances had already been discussed publicly by Ofgem, who had published a consultation and final decision document¹⁵. Ofgem are minded to delay the allowance to match the spend profile, to make sure there was no financial impact on consumers as a

¹⁵ <https://www.ofgem.gov.uk/ofgem-publications/52669/jul12whvdcdecisionfinal-pdf>

consequence of the delay. This was dealt with as part of the licencing arrangements, just as any other allowance timing issues would be treated for a TO delay, such as Incremental Wider Works or Local Infrastructure.

- 7.5. The National Grid ESO Representative explained that the Joint Ventures is a separate contracting party and they do not have a connection agreement with the ESO, it is a different type of agreement which would mean these charges would not apply.
- 7.6. The Ofgem representative stated that “as signalled during the Mid Period Review (MPR) parallel process, we will consider and consult on options for ensuring that the TOs do not benefit financially from any delays to the WHVDC Link, by delaying the associated allowances which cover both offshore (subsea cables) and onshore (onshore cables and two converter stations) works. We cannot be more specific at this time but encourage stakeholders to take part in our consultation when it is published”.
- 7.7. The Ofgem representative went on to confirm that the Mid Period Review (MPR) referred only to the work that was carried out by the Joint Venture that was part of the funded project, as described in their licence conditions and Ofgem’s final funding decision letter. These licence conditions can be found on Ofgem’s website using the following links¹⁶.
- 7.8. A Workgroup member requested further clarification on what would happen in the case of a TO initiated onshore delay for substantial AC works that were not a joint venture.
- 7.9. The Proposer stated that a route already exists to solve this issue. Ofgem have already highlighted this above and will be consulting on this. He highlighted, that for wider investments such as the Western HVDC link, the charges for this will be reflected in the wider zonal TNUoS charge, and assuming there was a need for a TO to return some of its original allowance to consumers, this can only be done through a reduction in its regulated revenue. Regardless of the charging mechanisms in place within the CUSC or STC, each TO’s regulated revenue is set by the RIIO Price Control. Therefore, the only way for a TO be exposed to the financial impact of such a delay would be for Ofgem to do this through the Price Control. Ofgem’s minded to position on the Western HVDC link proves that such a mechanism already exists, and therefore (in the view of the Proposer) there is no discrimination.

¹⁶ Special Condition 6I is the appropriate condition in both licenses.

NGET Licence condition:

<https://epr.ofgem.gov.uk/Content/Documents/National%20Grid%20Electricity%20Transmission%20Plc%20-%20Special%20Conditions%20-%20Current%20Version.pdf>

SPTL licence condition:

<https://epr.ofgem.gov.uk/Content/Documents/National%20Grid%20Electricity%20Transmission%20Plc%20-%20Special%20Conditions%20-%20Current%20Version.pdf>

- 7.10. The Proposer went onto highlight five reasons why an TO should not be responsible for additional costs as a result of a delay under CMP288 & 289:
1. **Ofgem Funding arrangements:** A TO does not get its allowance until it delivers its output for the RIIO framework i.e. the whole programme of works. If the output is delayed the TO is penalised by not getting its allowance early so is effectively financing the cost of its work.
 2. **Licence Treatment:** The Licence may state the timing of certain TO funding. Ofgem can realign this funding, in line with spend as in the case of Western HVDC Bootstrap.
 3. **The driving force behind TO Investment decisions:** There will always be a trade-off between the amount of the risk that the TO takes and the date it connects a customer. If the level of risk the TO faces is increased by penalising them for being late, they may take a more conservative view of when they can carry out a connection.
 4. **The party responsible for a delay in TO works can vary:** Outage plans and faults on the system can cause a delay to the work and it is not always clear if that delay is caused by the TO, ESO or a third party. However, the figures described in paragraph 4.2 above indicate that the majority of delays are requested by User's as a 'first mover' rather than triggered by TO, ESO or third parties.
 5. **Liquidated Damages:** There are already arrangements within the CUSC under liquidated damages to cover TO delays.
- 7.11. The Workgroup discussed the reasons mentioned above. A Workgroup member stated that the whole point of the Totex Incentive Mechanism is to encourage TOs to invest at the right time but by passing the output risk onto developers, the TO backs off from this risk and loses the incentive to act prudently. The Proposer explained that the point of the incentive mechanism is for TOs to minimise their costs. If for example the TO gets an allowance of £20m and spends £10m, they are funded for ~£15m. The time value of money of not spending in line with need is a by-product. Whilst it is right that the TO spend should be in line with requirements where possible, part of enabling this is putting appropriate signals in place to enable this to occur and delay charges will provide such a signal.
- 7.12. The Workgroup went onto discuss the driving force behind TO investments. A Workgroup member stated that as prudent operators the TOs must think twice about when they can carry out a connection. That is the whole point about prudent investment, the TO needs to make sure developers understand when this spend will take place. That will allow developers to postpone the next milestone and indemnify their liabilities. The Proposer explained that a TO may choose take a more risk averse approach if they were liable for TO initiated delays and offer later dates from conception. Aside from this, if a developer wants less risk of delay today then a discussion should be had between the TO and the developer around how ambitious the TO should be when considering its programme.
- 7.13. Several Workgroup members stated that Liquidated Damages translate to zero in connection agreements and therefore this reason is invalid. A Workgroup member suggested that liquidated damages should also apply to the delays that CMP288 and CMP289 are seeking to tackle, otherwise the TO is treating the same situation differently. The Proposer explained that Liquidated damages are optional to the developer. They are a proxy is used to signify the developer's costs because a standard cost cannot be identified. This is a proportion of the connection asset value (which can be zero, where

no connection assets exist). In the case of CMP288 and CMP289 the cost can be identified so this would not apply. A workgroup member disagreed and stated that they could also establish the financial impact of a TO delay on a generator so liquidated damages should not apply in that circumstance either. The Proposer highlighted that these costs would not be the same for all generators which is why liquidated damages would be used. The Proposer went onto explain that if the TO is exposed to additional costs then the cost of financing for the TO would go up. This would result in a higher rate of financing being assumed at the next price control, which would ultimately filter back through to TNUoS charges and everyone would end up paying for this. The Proposer went onto explain that this was not discrimination, because the TO is obliged to provide an offer to facilitate the other parties' connection and it is not always clear when there is a delay in transmission work if that is down to the TO or if this is out of their control. If there is an incident on the system, live outages and security of supply are under threat, the ESO has a choice between security of supply and delaying a connection to an individual customer. Security of supply will win out each time so the TO should not be penalised for this. The Workgroup discussed this issue further and the Proposer stated they would be open to a review the liquidated damages arrangements. However, as the Workgroup concluded that the costs liquidated damages are trying to cover are different to that here (i.e. developer project rather than transmission project), it was out of scope and a separate CUSC modification.

- 7.14. A Workgroup member stated that if there was an TO initiated delay and a party had already paid Advance Capital Cost Contributions, would they get a payment back for the financing or incremental costs that they had incurred from the TO. If they did not receive this back this may be classed as discrimination because of the difference in treatment. The National Grid ESO representative explained that advance capital contribution payments tend to be made as spend is incurred. In the event of delay where a customer has chosen advance capital contributions, capital contribution payments are reconciled against the spend. The balance is then either credited or invoiced and a new payment schedule issued as part of the notice / acceptance of offer reflecting the changed dates. The Workgroup questioned if any interest is added to this. The National Grid ESO representative stated that daily interest is paid at the Barclays Bank rate. This is applied on the difference between when the customer paid and when the TO spent. This applies in both directions i.e. if a TO spends later than when the customer paid then interest is paid to the customer. However, if a customer pays later than TO spend then they are charged the interest. This is only done at the end of process i.e. the reconciliation done on commissioning. The National Grid ESO representative also noted that capital contributions are paid on connection assets but this is out of scope for this delay charge modification.

What works should be subject to these charges

- 7.15. The Proposer confirmed that additional costs for delays and backfeeds would apply to Enabling Works. However, there were questions around whether this should apply to all Enabling Works (Connection, Local Infrastructure, and Wider Works) which the Workgroup needed to discuss.
- 7.16. The Proposer's view was that delay charges should include Infrastructure work such as asset replacement and wider reinforcements. As a large proportion of the additional costs

they are seeking to recover are caused by wider works, which are largely carried out to facilitate multiple customer connections, but the timing for which may be dependent on an individual customer's project. The Proposer highlighted that the Workgroup may need to examine interactions with the Network Options Assessment (NOA) recommendations which are based on Future Energy Scenarios (FES), along with contract dates, to fully understand the possible impacts they could have on delays and efficient timing of works.

- 7.17. The Workgroup requested clarification on how TOs established if wider works were required. The Proposer explained that this was based on the Security and Quality of Supply Standard (SQSS), but simply if current Network Capacity is deemed insufficient to meet security standards in network modelling, investment would be required. Parties that go above this threshold will need enabling works which may include wider works associated with them and additional costs. Parties will only be responsible for delays to wider works that were needed to facilitate their own projects. The Proposer highlighted that in terms of the defect, wider and shared enabling works have the most impact, especially in relation to big long lead projects where early investment may be required and a large amount of money may be spent before a User delays. These costs will still need to be financed. Several Workgroup members stated that it will become very hard for any party to understand where the costs have come from as they become less visible and more complex. Any delay is highly dependent on other Users (and their respective Construction Programmes) and so can be an onerous process to manage. The Proposer explained that the quarterly report provided under the existing CUSC arrangements can be developed to incorporate some of this information.
- 7.18. Several Workgroup members highlighted that wider works could be caused by distribution connected parties without a direct agreement with National Grid ESO as well as transmission connected generation. The Workgroup requested further clarification on how TOs would attribute an embedded generator's delay back to that individual, as they would have different build times. The National Grid ESO representative stated that they did not have a feel of how many times a Distribution Network Operator (DNO) delays to understand the impact of this. However, from a transmission perspective they would not try and do this directly, they would only attribute back to the contracted party, i.e. the DNO for them to resolve. A Workgroup member highlighted that DNOs have entirely different timelines, the same sort of concept needs to apply to both. Otherwise for a delay charge to be handed down to a DNO this would be a very complex process. The Proposer stated that the DNO's tended to charge upfront for their connections so did not know how they would deal with transmission work and delays. After further discussion, the Workgroup concluded that if a delay is caused by a contracting party i.e. Generation, Demand or a DNO, it is up to those parties to sort the delay costs within their own contracts.
- 7.19. The Proposer confirmed that the financing element of charges would not apply to costs covered by advanced capital contributions, up front one-off charges or connection assets. This is due to the financing costs associated with connection assets during construction already being recovered through Interest During Construction (IDC) in the Connection Charging Methodology. Whereby the User picks up the connection charge and any delay costs associated with the actual connection through the inclusion of interest during construction.

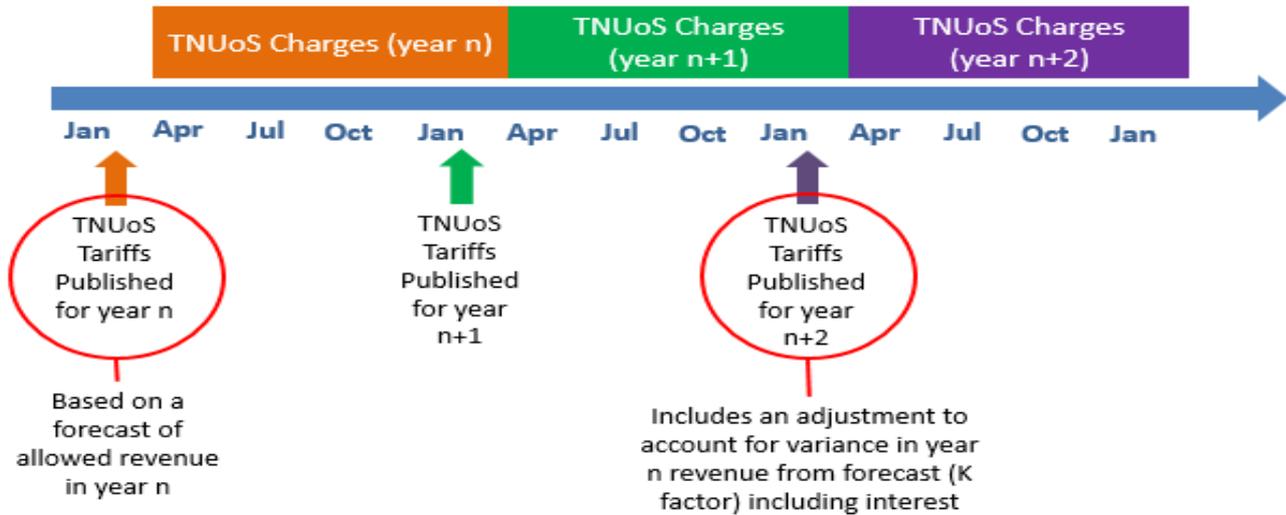
How costs are to be divided between parties responsible for the delay

- 7.20. A Workgroup member stated that it may be worth exploring how much of a delay for shared works is attributable to one customer. Often it may not be down to one party and the delay could be caused by the TO wanting to expand the network in a particular area. Some of this expansion may be to accommodate the customer's generation but the rest may be to facilitate other things, e.g. changes in demand patterns.
- 7.21. Workgroup members agreed that the costs should be distributed in a proportionate and fair way across all parties who have caused the delay. To make sure this does not only penalise the first and last man standing and cause perverse outcomes or incentives for third parties being hit, just because they are connected to the transmission system.
- 7.22. The National Grid ESO Representative suggested that an option could be to calculate the delay charge according to megawatts and then proportion this fairly across the delaying parties, according to their contribution towards the delay. A similar principle to the User Commitment methodology.
- 7.23. The Workgroup concluded that a question should be added to the Workgroup Consultation, to get Industries views on the proposed approach.

Revenue treatment within the transmission licence

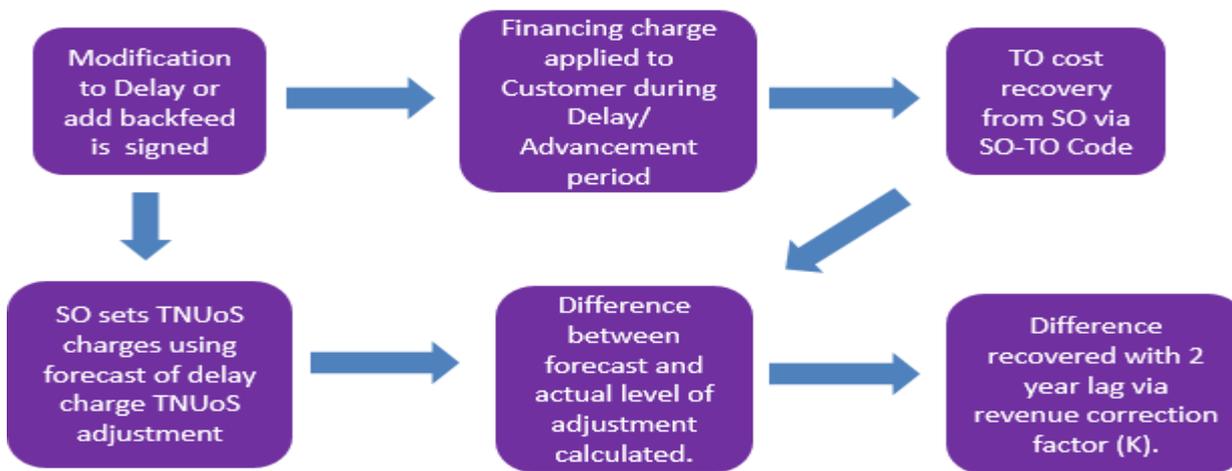
- 7.24. The Proposer used Figure 12 below to explain that TOs set their revenue that the ESO TNUoS charges in January for the forthcoming charging year in April (year n). Each TO will use the best forecast available to it at that time, taking into account both the Regulatory Asset Value for commissioned investments, and that forecast for future outputs. As the allowances for its outputs will be phased over a number of years up to delivery; the TO will have to forecast its outputs in advance (typically, 3-4 years) in order to calculate the forecast revenue for year n (i.e. allowances, TIM adjustments, etc.). Any error in the forecast will result in the revenue for year n being adjusted. If a project in the assumed background delays, the TO revenue will be adjusted in its forecast 2 years later year via the K factor. Overall this work out cost neutral, with interest applying to any adjustments made.
- 7.25. For example, if the National Grid TO forecasts to connect a 1GW generator in year 4, then it would assume 16% of its £27m allowance will be received in year 1. Assuming its spend profile reflects this timing and that spend and allowance are equal, the TIM adjustment for the year will be £0m, as spend and allowance are equal. The ESO would set its TNUoS charges (and post-legal separation of National Grid TO and SO pay the TO) on this basis. If the generator subsequently delays, the allowance will be removed from its forecast for year 1. If the TO has invested as forecast in year 1, then a TIM adjustment will apply (i.e. the revenue relating to this investment for year 1 is 53% of the spend incurred). The remaining 47%, will be allowed for at a later date based on the new forecast delivery date of the output. However, there will be a difference between the initial value set for year 1, and the outturn allowed revenue. This is adjusted via the K correction factor, which adjusts revenue in year 3, with interest applied to account for the timing difference.

Figure 12:



7.26. The Proposer and National Grid ESO Representative explained how the charging process could work. The customer/developer would submit a mod app to delay or request a backfeed to the ESO. The TO will then calculate the delay or backfeed charge that will be incurred. The ESO will relay this back to the customer and include it in the Modification offer. If the customer still wishes to proceed with the delay or backfeed they will then confirm acceptance by signing the offer. The TO will then invoice the ESO who will in turn invoice the customer. CMP288 and CMP289 will promote and enable better planning and advance knowledge of any delays or backfeeds. This will drive better forecasting of TNUoS charges and reduce any revenue correction that is required through the K factor.

Figure 13:



7.27. A Workgroup member highlighted that the generator (who is a TNUoS paying party) will pick up the costs from CMP288/289 and pass them back to the end consumer. The end consumer will therefore pick up the bill either way, whether it comes through the TNUoS charge or directly from the generator and that this modification will not save the consumer any money. The Proposer explained that as a result of the European Cap and the way that generation and demand splits work, any additional revenues that get put on TNUoS are recovered through demand TNUoS rather than generation TNUoS. Therefore, CMP288/289 would be a fairer and more cost reflective way of collecting the

charges. The Proposer stated that he believed it was appropriate for developers to be exposed to the potential cost resulting from a delay or backfeed, as the generator will be exposed to pressure to minimise prices in a competitive market, and exposing them to the cost will enable them to take this into account before making its decision to request a delay or backfeed facilitating competition and better planning within the market. A further Workgroup member stated that generators act in a competitive market so they can choose to absorb the cost (rather than passing the cost on to consumers) to remain cost competitive.

- 7.28. The Workgroup discussed whether the TO will openly share the costs that they recover through CMP288 and CMP289 with Ofgem. The Proposer confirmed that National Grid would be happy to share this data with Ofgem, but this would be dependent on what reporting requirements were put on them through the Regulatory Instructions and Guidance for RRP. Ofgem already scrutinises the revenue that they recover under the RRP process.

Financing Rate to be used - Weighted Average Cost of Capital (WACC)

- 7.29. The Proposer stated that under the RIIO Price Control there was a regulatory Weighted Average Cost of Capital (WACC) for each TO, which represents the expected cost of financing used in calculating TO revenues. The Workgroup questioned if it is correct to use the same value for financing as return and if the financing value should be lower to ensure the Internal Rate of Return (IRR) is above zero. The Proposer re-iterated that this is the rate used in the revenue calculation in the price control and using anything else would result in a net loss or gain to TOs and consumers.
- 7.30. The Workgroup discussed the use of a derived average WACC, that was not locationally variant. The Proposer highlighted that the WACC differed between TOs and use of an average could lead to over or under recovery by the ESO. The Workgroup agreed that it was more appropriate to use individual WACCs per TO even if this did vary locationally.
- 7.31. The Workgroup raised concerns that the regulatory WACC was not visible to stakeholders and for transparency purposes this should be published. The Proposer confirmed that they would be comfortable in doing this and that the Workgroup should agree whether this should be published under the information flow ahead of commitment stage gate, incorporated into the CUSC an obligation to place the WACC into the annual the Statement of Use of System Charges, or added to the TOs' annual charging statements or another document at a later date.

The impact of Corporation Tax on TO revenue

- 7.32. The Proposer highlighted that the Totex Incentive Mechanism (TIM) occurs post tax so a tax adjustment must be made to this.
- 7.33. The Proposer stated that the impact on TNUoS charges is that they are adjusted for tax, but the financing costs outside of the revenue has not been adjusted for this. Therefore, a tax adjustment may be required in the solution, depending on how the revenue received is treated. If it is accounted for post-TIM, a tax adjustment will be required. However, if the revenue is treated as negative Totex in the TO Transmission Licences, the funding received is reflected in the Totex assumed within TIM, before the tax adjustment is required.

- 7.34. The Workgroup highlighted that the tax rate set by the government is currently 19%. The Workgroup requested clarification on the Corporation Tax rate paid by NGET in order to understand which rate should be used. A Workgroup member requested clarification on whether the amount paid by NGET for 2016/17 was 12.7%¹⁷. As there is likely to be taxable items and non-taxable items, so the overall rate that a company pays will be different to the published rate. The Proposer confirmed that 12.7% was the rate paid by NGET which was published in their Statutory accounts. The Workgroup discussed if the actual tax rate incurred by a TO should be used, this may need to be based on the previous year's rate, as the final rate paid is not established until the end of the financial year. The Proposer highlighted that the RIIO Price Control Financial Model (PCFM) contains the rate set by the government at 19%, this is the rate that they should use. A Workgroup member disagreed and claimed this was not cost reflective. The Proposer explained that they should not be using a different rate to that which is used to calculate overall revenue that is being lost.

Depreciation

- 7.35. The Proposer stated that the guidance note that they have published does not include depreciation for delay charges but does include depreciation for backfeeds.
- 7.36. The Proposer explained that the theory behind this is that assets are already being used for delay charges and but not for backfeeds, which could affect their operational life. However, the Proposer also highlighted that they are funded for Depreciation for these assets within the licence, which allows for depreciation to be added to the RAV over a 45-year period and then recovered through TNUoS charges - it is fully funded through the Price Control, but there will be a cost associated with the timing of this. It is the Proposer's view that in accounting for the timing difference of the output appropriately through the delay charge would resolve this.
- 7.37. The Workgroup requested clarification on why they would only be paying the financing cost on the asset and no depreciation. The Proposer confirmed that the allowance they receive will eventually give them 45 years' depreciation, and the timing difference will be accounted for implicitly within the financing element of the charge.

Interaction with other Charging Mechanisms Cancellation Charge (Generation & Interconnectors) & Final Sums (Demand)

- 7.38. The Proposer highlighted that there will be an interaction between the proposed charges under CMP288/CMP289 and cancellation charges/final sums. Cancellation charges and final sums both include interest from the point TO costs are incurred up to the date the Cancellation Charge is invoiced. If a delay or backfeed charge has been issued prior to a cancellation charge, then there may be a risk of double counting and a mechanism may be required to tackle this. The Proposer highlighted that it is worth noting that cancellation charges do not cover the full cost of the works, and therefore will not account for the full cost of a delay. Final sums cover the entire cost of works, so the required

¹⁷ Values at the bottom of the tables on page 56:

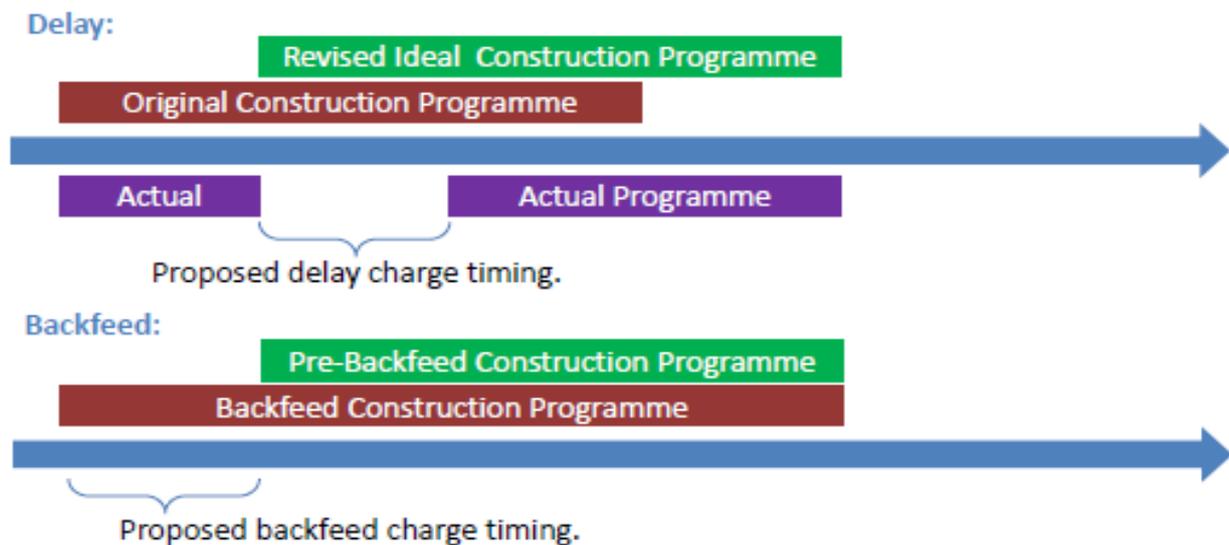
<http://investors.nationalgrid.com/~media/Files/N/National-Grid-IR/reports/2016/nget-ar-and-accounts-2016-17.pdf>

adjustment will be simpler. The Proposer stated that the Workgroup will need to discuss these issues further and come to an agreement on the following areas:

- If the TO incurs a cost, should they recover the resulting charge at the point it is incurred, or at a later date.
- If a developer has already paid for a delay or backfeed and they then chose to cancel, how should the overlap between the financing element of the delay/backfeed charge paid by the developer and the requirement to pay interest on the delay or cancellation charge be dealt with? (An adjustment factor may be required for the potential overlap).

7.39. The Workgroup discussed if payments should be made on the first day of the delay or backfeed, on a monthly basis, at the end of the year or at the point of connection. The Proposer stated that in his opinion the most efficient way to collect these charges would be to collect them gradually over the period at which the cost is incurred, as the cost is incurred over time. The Proposer used Figure 14, below to explain that their preferred solution was to recover the delay charge from the point at which the TO’s programme is delayed for the duration of the customer delay, or (in the event of a backfeed) the duration of the requested advancement.

Figure 14: Duration of Charges:

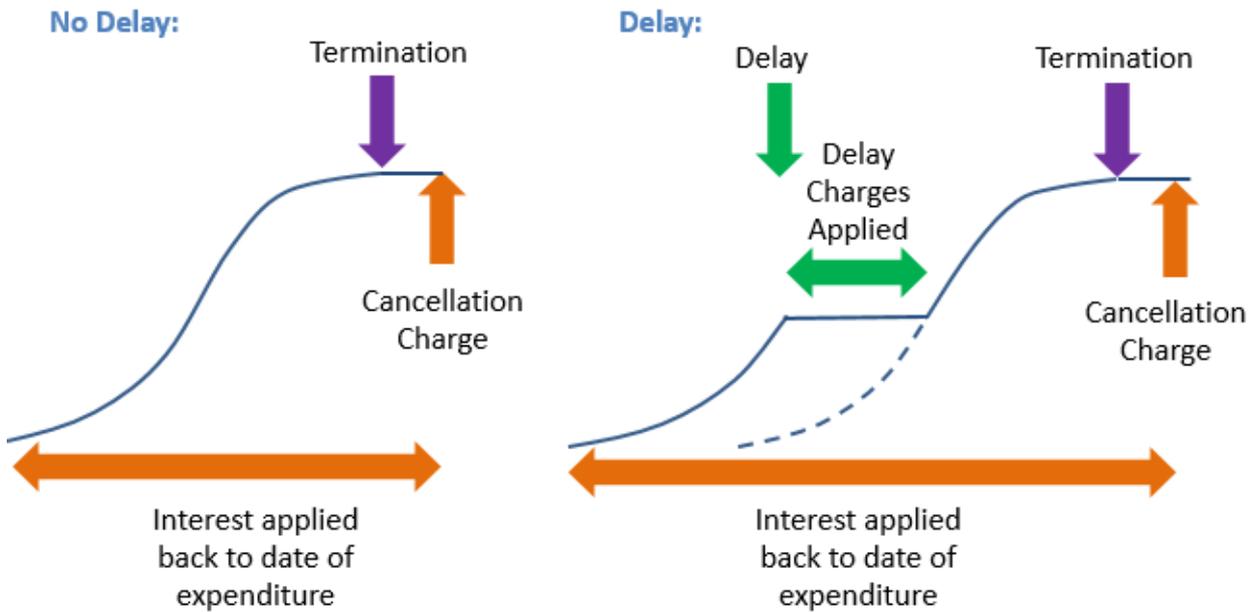


7.40. The Proposer explained that if a delay charge has been paid and the developer then chooses to cancel, they could either refund the financing on the delay charge and allow the interest to be recovered through the cancellation charge or omit the interest on the cancellation charge for the delay period (e.g. charge two years less interest on costs incurred up to the point of a 2-year delay). Either option would work and provide the same outcome. Alternatively, the charges could be paid at the point of connection based on the WACC that was applicable at that given time. This would avoid any double charging, but may increase the value of the delay charge, because the financing charge would apply to a longer period of time.

7.41. The Workgroup questioned if the interest from the delay charge could be subtracted from the cancellation charge to give the correct figure. The proposer stated that this would be difficult as the cancellation charge may not be based on the full cost of the project, so the level of interaction would vary by project and result in added complexity.

7.42. The Proposer used Figure 15 below to explain the potential interactions between the existing cancellation charge and final sums arrangements and proposed delay charges. Where no delay occurs (left diagram), interest is applied from the point TO expenditure is incurred all the way through to the point the Cancellation/Final Sums charge becomes due to payment (orange bi-directional arrow). If the project delays (right diagram) this interest would include the delay period. However, if a delay charge has already been applied over the delay period (green bi-directional arrow), there is effectively two financing charges applied for the same period, if the developer cancels its project.

Figure 15:

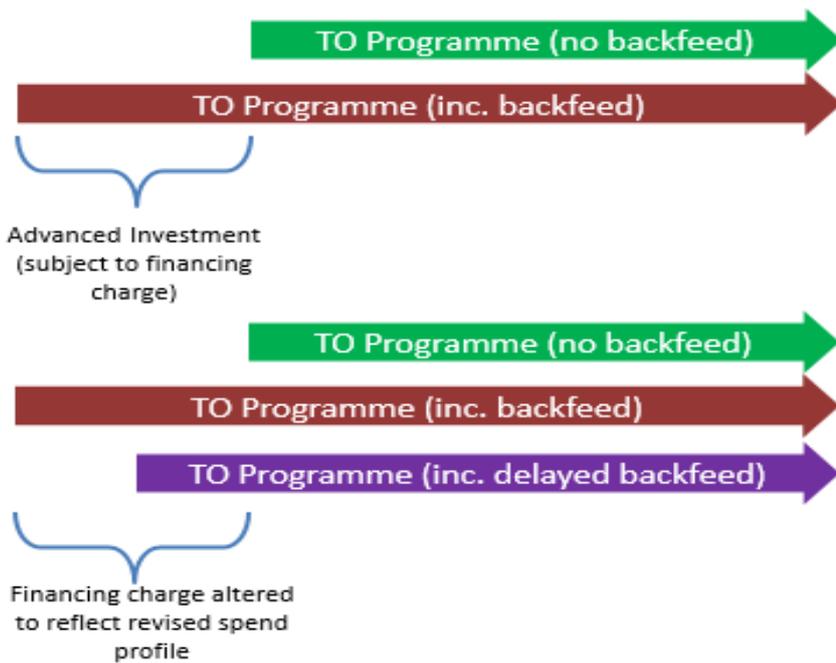


Interaction between Delays and Backfeeds

7.43. The Proposer highlighted that there were several scenarios where there was a risk of double charging where both backfeeds and delays have been requested. In these cases, the TO and SO would need to make sure they did not charge parties twice and that the true overall cost was paid.

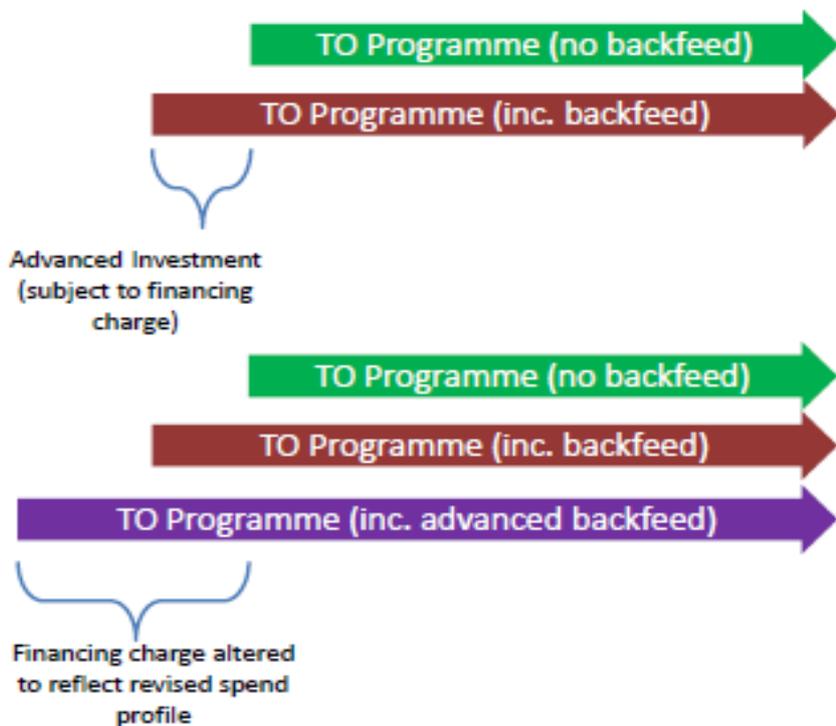
E.g.1: If a party requests a backfeed in year two and a connection in year five, but then delays the backfeed by one year to year three and leaves the connection date unchanged, what charges would the developer pay. The TO may have already started investing in the backfeed in year one, therefore the costs they have already committed should be subject to a delay charge. In addition to this, the developer will still pay for the actual backfeed based on the revised charge date (i.e. a delay charge introduced, but the financing element of the backfeed charge is reduced).

Figure 16: Financing Charge for a Delay in Backfeed date (with static completion date):



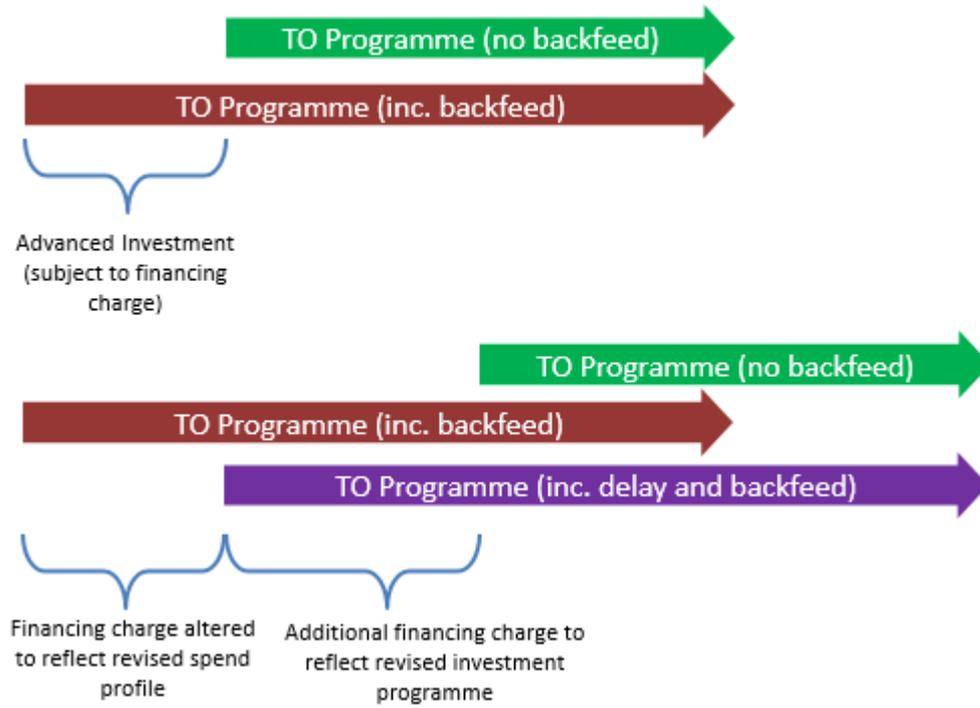
E.g. 2: Similarly, if a backfeed is advanced (as shown in Figure 17), then the backfeed charge will be revised to reflect the additional financing cost.

Figure 17: Backfeed Advances:



E.g. 3: Figure 18 shows the scenario in which a developer delays a whole programme of works i.e. a backfeed and connection by one year. Then any spend or financial commitments made to date should be subject to a delay charge. The original financing element of the backfeed charge will still apply.

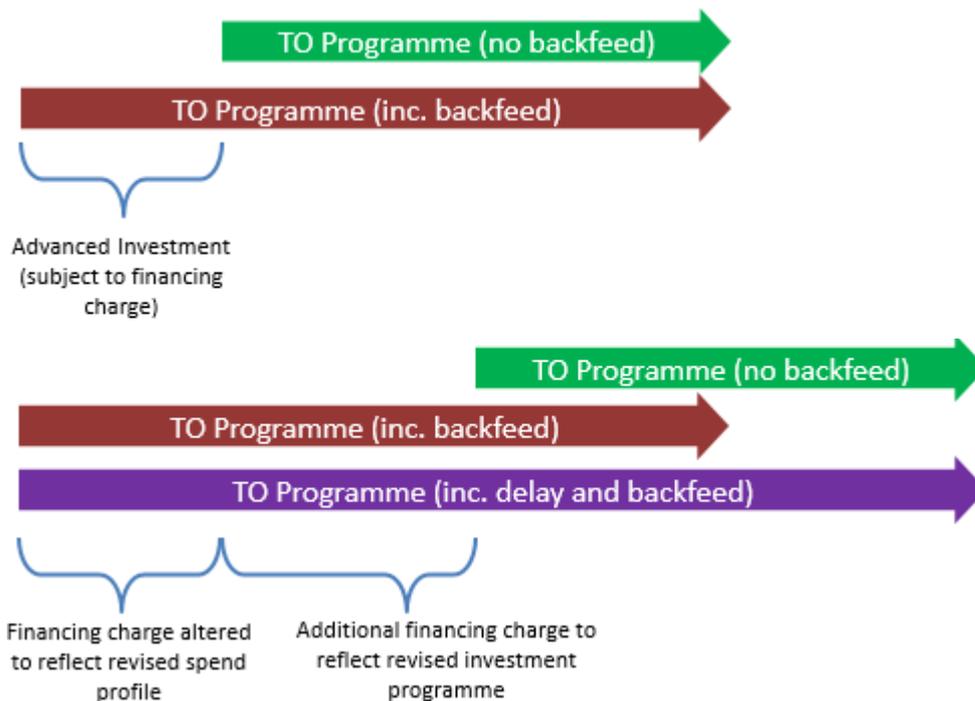
Figure 18: Delay to Connection and Backfeed:



E.g. 4: If a developer requests a backfeed in year two and a connection in year five, but then brings the backfeed forward to year one and delays the connection to year six, what charges would the developer pay. A delay charge would not recover the full amount, so would not be used. A backfeed charge would apply instead to cover the financing cost for the additional two years. One year for bringing the backfeed forward and another year for extending the difference between the backfeed and connection date.

- 7.44. The Proposer presented the following diagrams to the Workgroup, to help them understand the timing of the charges and how these could occur. The Proposer stated that it would be appropriate for charges to be paid throughout the “delay or advancement period”. For example, the financing for a two-year delay should be charged over the 2-year’s following signature of the modification offer. Where any additional incremental costs are incurred for either a delay or backfeed (e.g. de/re-mobilisation costs), these could be recovered via a one-off charge.
- 7.45. The Proposer used Figure 19, below to explain the financing charges that may occur if there is a delay to a connection but a static backfeed. In this scenario, the original backfeed financing charge would continue to apply, and the delay charge would apply to cover the additional financing costs resulting from the delayed connection date, and would apply from the point of delay for the duration of the delay (i.e. charged over 2 years for a 2-year delay). This would avoid double counting of the financing charges.

Figure 19: Delay to a Connection with a Static Backfeed:



- 7.46. The Workgroup requested further clarification on why the backfeed charge was not already incorporated within the cost of the original programme. The Proposer explained that they were additional costs that the TO incurs for installing assets earlier than they otherwise would have, to allow a supply to site. For a typical connection project, the addition of a backfeed would result in the TO incurring a spend ahead of its allowance. Part of the modification application assessment looks at the provision of a backfeed, which has incremental costs associated with it for carrying out work that was not originally planned (e.g. remobilising and demobilising a workforce), along with the early financing of additional costs. The Proposer explained, that it tends to be wind developers and offshore works that will require a backfeed.
- 7.47. The Workgroup questioned if the cost of the modification application fee included the cost of the backfeed. The proposer confirmed it did not include this. The modification application fee only covered the cost of processing the change to the legal agreements and power system studies to make a revised offer, and did not include the actual cost of the programme beyond this. The Proposer stated that when a customer signs a modification application they agree to pay any charges associated with that offer.
- 7.48. A Workgroup member requested clarification on how the TO would deal with a delay to a TO backfeed (e.g. the TO supplying site supplies to undertake its own investments on the Transmission Network). The Proposer explained that he is not aware of a TO requiring a backfeed, but if they did, they would be effectively providing their own backfeed as part of their programme, and would be incentivised to do this as efficiently as possible through the Totex Incentive Mechanism. This was a cost the TO incurred as part of providing investments on the network, and were considered part of those investments. The Proposer went on to state that the defect refers to a User request for a backfeed. As the TO is not a User under the CUSC, this would be out of scope for this modification. If this issue did ever occur between TOs, then it would be a matter for the STC and the funding arrangements under the Transmission Licence. The Workgroup member stated that the Proposer was treating the same situation differently and felt this was discrimination. The

Proposer disagreed as the cost of the backfeed provided to facilitate a customer building its assets was in addition to the transmission works the TO needs to undertake to facilitate the connection. Having the backfeed funded by the TO and consumers through TNUoS, rather than the developer, would not encourage the developer to consider the economics of alternative options (e.g. on site generation, LV supplies from a DNO, etc.). The Workgroup requested that the different opinions be noted within the Workgroup Report. The backfeed charge should only include works required for backfeed. There may be cases where this only includes a part of the enabling works (local substation), and none of the wider works.

Transparency of Charges

- 7.49. The Workgroup stated that as part of CMP289, TOs needed to consider different ways of engaging with stakeholders, creating timely, accurate, forward looking profiles of spends and understanding the impact of those costs on different parties. They need to make it clear to stakeholders the points at which major costs will be incurred and how this will impact potential delay charge liabilities. If a key milestone in the TO programme is passed and the developer chooses to delay the works after that milestone, the solution needs to ensure that the potential liability is clear.
- 7.50. The Workgroup stated that most importantly in advance of TOs placing large contracts, developers should be kept informed, to allow joint decision making and the choice to take on liabilities that would otherwise be unknown. The Workgroup highlighted that regardless of whether the duration of a delay, the value of charges should be clear so that there is no need to submit several modification applications to understand the implications of different scenarios.
- 7.51. The Proposer explained that the guidance note that National Grid ESO had already published on delay charges included arrangements for National Grid to provide information to aid understanding of potential charges, in the form of provisional cost information and clarity around potential new charges. There were also some existing reporting arrangements within the contracts such as (quarterly reporting) which could be enhanced. The Proposer noted that currently a developer does get a cost profile and programme of works but not necessarily together at the same time, which they could look at improving to make it easier for developers to assess their liabilities. The Proposer explained that key milestones are also currently available within Appendix J of their Construction Agreement and there are also provisions for six monthly cost information for enabling works provided for under the delay charge guidance note. The Workgroup highlighted that the key milestones within Appendix J are not always kept up to date and a more enhanced process is needed. The Proposer agreed that failure to keep the Appendix J up to date would make it difficult to know when this spend is likely to occur, and stated that updating the milestones for more complex projects may be dealt with better through provision of regular updates than contractual changes.
- 7.52. The Workgroup discussed the quarterly reports that TOs are already required to produce for developers. The Workgroup stated that if the TO ensures these reports include financing costs to show the cost of any delays/backfeeds in the next four to six quarters or the purchase of a large cost item, the developers can then use those reports along with a deadline prior to each listed milestone to decide whether to still go ahead with a project or delay. This will also then allow them to avoid the financing costs on potential large items of expenditure and just pay a delay charge on the spend made to date. The Proposer highlighted that TOs are already incentivised to provide regular updates and

users should equally be advising of any changes to their project timescales. They can then take the potential for modification applications to delay/waiver into account when deciding whether to proceed with shared works, but would ultimately do whatever is economically and efficient at the time for the TO (i.e. the decision to proceed with transmission works remains with the TO). The Proposer confirmed they will look to see how they can facilitate the above requests and use existing reports to bring spend and construction agreement milestones together to allow stakeholders to understand the risks they are exposed to.

- 7.53. The Workgroup stated that a deadline of one month should be provided ahead of any key milestone by which stakeholders should inform the TO of an intention to delay, or that they no longer wish the TO to proceed with works to facilitate their connection. This would provide the TO an opportunity to take measures to cease work or adjust its programme to minimise any incremental or financing costs associated with the works.
- 7.54. The Proposer explained that a balance will need to be struck between reporting on every pound the TO plans to spend on a daily basis and what they plan to spend every quarter/six month for the next four to six quarters.
- 7.55. The Proposer suggested that before the TO reaches a key milestone a discussion should take place with the developer to highlight the magnitude the TO will be investing to carry out these works. The developer can then confirm that they are confident that their project will go ahead as planned or request that the date be changed (if the TO can accommodate this).
- 7.56. The Workgroup welcomed more transparency, discussions and information on key milestone along with the costs associated with them if there were to be a delay or backfeed, but stated that the TO also needed to be incentivised to provide correct and accurate information and not to spend money before it was needed. The developer should not be penalised or expected to pick up additional costs if the cost of the delay or backfeed turns out to be more than what the TO initially stated. The Proposer stated that the Totex incentive mechanism already provides an incentive on TOs to minimise costs where possible. The Proposer was not sure how placing an additional incentive not to under forecast would achieve, other than providing a perverse incentive to over forecast, which may influence developers' decisions towards an inefficient outcome. The National Grid ESO representative stated that it was easier to ascertain short term costs, but a long-term view would be based on the best forecast available at that time. The Proposer explained it is difficult to know the results of a tender before the tender takes place, but they will have a better view of the works required just prior to tender than, say, a year ahead of this.
- 7.57. The Workgroup discussed the difficulties around wider works and accurately establishing the materiality of the costs. The Workgroup stated that these works are reliant on multiple parties, the decisions they make and the order of those decisions. The Workgroup discussed if the TO was better placed to manage that risk rather than the developers and if these modifications were needed.
- 7.58. The Workgroup concluded that they should look to adapt existing processes to the provide the required data, where possible within them to include profiles of spend, key milestones, updates on what has changed.

- 7.59. The Workgroup highlighted that this could change behaviours and lead to developers making decisions all at the same time. So rather than getting modifications throughout the process you may get them all just before the next information stage gate, which could have resource implications.
- 7.60. The National Grid ESO representative discussed these proposals further with the TOs to understand if a solution that can be facilitated by all TOs existed. The ESO representative confirmed that a workable solution would use the current bi-annual securities process to provide details of expenditure to date, and six monthly forecast cost profiles for a minimum of 12 months. Key milestones would also be provided on a quarterly basis along with an opportunity for a quarterly meeting. A charge calculation tool which would be published on their website. This would allow customers to input cost profiles to calculate potential charges for different scenarios.
- 7.61. The Workgroup confirmed that they were comfortable with the bi-annual reporting of costs, quarterly milestones and the publication of a charge calculator. However, they were concerned about TOs placing a large contract before the next bi-annual statement without their awareness. The National Grid ESO representative confirmed that the entire aim of all this reporting and quarterly meetings is to ensure customers know what is on the horizon well before it happens. Therefore, the National Grid ESO representative did not feel that this was an issue.
- 7.62. The Workgroup requested clarification on the difference between the bi-annual reporting and the quarterly milestones. The ESO representative confirmed that the bi-annual reporting will contain six monthly blocks of future spend, whilst the quarterly updates will provide updates on where those large spend milestones, along with the relevant impact of them and a one month window for the customer to respond.
- 7.63. A Workgroup member questioned whether a month window was sufficient to enable a customer to make such an important commercial decision. The Workgroup stated that this should be a question that they can add to the Workgroup consultation.
- 7.64. The Workgroup questioned if customers would only be held liable for the costs quoted within the bi-annual and quarterly reports, especially if this is substantially different. The ESO representative confirmed that this will be a forecast of the potential costs, as they will not know the exact cost of a tender until nearer the time. Besides this, customers should not be liable for large value costs or events that they have not been informed of via the quarterly process.

Asset access and identification

- 7.65. Several Workgroup members highlighted that developers were unsure what was happening with assets where they had paid a charge for the additional cost of financing associated with the delay, but an asset had not yet arrived on site. The Workgroup wanted further clarity on whether the assets were still on order, in storage, being used elsewhere or on site and not being used. Several Workgroup members felt that if a developer is to be charged for financing an asset that is to be used as part of their infrastructure work, then only that developer should be entitled to use that asset. If for any reason, such as a result of a delay the TO decides to use that asset for the wider system, a different set of works or for it to be shared with another party, then the original developer should not be paying for the financing of that asset. The developer should only

pay for the financing of the asset that they eventually receive. To ensure no one else is using the asset, the developer should also be entitled to view, inspect and attach a tracking device to the asset. The ESO representative clarified that when the developer pays a charge they are not financing a specific TO asset but they are paying for the additional financing costs as a consequence of the delay.

- 7.66. The Proposer agreed that the re-use of an asset needed to be considered but the makeup of investment costs went beyond purely the cost of assets. Other costs would also be incurred for e.g. consenting, design and development costs. In the Proposers view if a project was going to be delayed, this tended to happen in the early phase of the project, before assets had been purchased. The Proposer went onto explain that if there is an asset and there is a delay that asset could potentially be re-used elsewhere, but this would not happen until another replacement asset had been ordered for the original developer to ensure their completion date can still be met. There will be a time difference between paying for the asset and the need occurring elsewhere, and the additional financing cost during this interim period should be covered by the original developer, as the asset has been ordered earlier than it otherwise would have. To give developers confidence that the asset was not being used elsewhere the TO could inform stakeholders of when the asset is being purchased, when it will be delivered to site and if it will be used elsewhere. Similar to CMP192¹⁸ the initial charge will be accounted for by the developer and if the asset is re-used the TO will adjust the charge accordingly.
- 7.67. A Workgroup member stated that to avoid further lead in times waiting for a replacement asset, the original developer should have a choice as to whether the asset should be used elsewhere or to continue paying the financing cost for the delay on the asset. This would then still give the original developer an opportunity to bring their project forward again if they so wished. The Proposer disagreed and stated that the TO and ESO are under a Licence obligation to operate in an economic and efficient manner. Therefore, they would look to see what the most efficient thing was at that given time.
- 7.68. One Workgroup member highlighted that, in their view, the TO currently only gets funded for the financing of assets that they install and does not currently have the ability to charge the developer for financing in the event of a delay. This would change with the implementation of CMP288 and CMP289, as the TO will be able to charge both the developer and TNUoS payers (end consumer) for the same single asset allowing them to make a potential double recovery. The Workgroup member used the following example to illustrate this point.
- E.g. 5:** If Project 1 is delayed by 18 months and its asset is used by Project 2 which is brought forward by 18 months. The TO could charge the first developer for the financing of that asset. They may also then go to Ofgem and state project 2 has been completed early and get the financing cost of that returned through the Regulatory Asset Value (RAV) from TNUoS payers, creating a double recovery.
- 7.69. The Proposer confirmed that this would not happen under the proposed approach. Despite the fact such an advancement is rare (i.e. a customer wishing to advance 18 months – completing the works earlier than required would not result in an earlier

¹⁸ CMP192: Enduring User Commitment Proposals

allowance), if such an occurrence did occur and the asset was reallocated the financing element of the original developer's delay charge would be immediately refunded under the proposal.

- 7.70. The Workgroup went on to discuss strategic wider works in more detail and any individual projects within that which cause a delay. The Proposer indicated that any delay is likely to result in a delay in funding from Ofgem. If Ofgem fund 100% of the works then any delay charge would be returned. If Ofgem adjust their funding, then there may be an impact on the TOs financing which would have to be taken into account.
- 7.71. A workgroup member suggested that they should have option to track assets with GPS if they are paying a delay charge. The Proposer stated in their view tracking an asset using GPS would not be beneficial as it introduces the potential for third party liabilities should the asset be damaged during the installation / removal of the GPS equipment. The Proposer confirmed that he was happy for assets and relating documentation to be inspected (at the developer's cost) if ample notice was provided and they were not breaching any confidentiality, safety, or other obligations.
- 7.72. The Proposer explained that each TO will maintain a Fixed Asset Register, which lists all the assets that have been installed or not commissioned yet. If an asset is moved or reallocated this will be visible on the register. The Proposer explained that there may be audits already being carried out on the registers of each TO, if not it may be appropriate for something of this manner to be put in place (e.g. as part of RRP) if Ofgem do not feel the current reporting provides sufficient transparency of this.

8. Proposed Solution

- 8.1. The Proposer stated that after a number of Workgroup discussions, he was able to confirm the solution that he was minded to propose:

Solution - CMP288:

- 8.2. The scope of the charges would cover:
- User requested Backfeeds, requiring work to be undertaken in an earlier Financial Year.
 - User requested Delays to the Completion Date into a later Financial Year than prior to the request.
- 8.3. The works that are to be included within this are:
- Local Enabling works (financing transmission charge)
 - Wider Enabling works, i.e. those specified in Appendix H Part 1 of the construction agreement (financing transmission charge)¹⁹
 - Additional incremental works - e.g. de & remobilisation (one-off charge)
- 8.4. The works to be excluded from this are:
-

¹⁹ Covered under Appendix H of the Construction Agreement

- Connection asset works (as IDC is already included within the connection charge)
- Elements of investments funded via an advance capital contribution

8.5. The Proposer stated there are two possible solutions for the treatment of shared works. They could add a Workgroup Consultation question, requesting that Industry confirm its preference out of the two options listed below:

- **Option 1 – All the costs of financing early works, targeted to the delaying party:**

The financing charge will be based on the full cost to date of works, that would have been undertaken later, had the new date been originally contracted.

An Initial charge will be based on the TO's best view of future requirements with a reconciliation following the NOA/NDP outcome, if subject to NOA.

Positive: – All costs will be recovered;

Negative: – This may result in a “last man standing scenario”; where the scope and value of the charge is variable.

- **Option 2 – MW proportion of all shared works targeted to the delaying party:**

The financing charge will be applied on the MW proportion of the cost of all shared works to date regardless of the effect of the delay.

Positive: – Avoids the last man standing issue and charges are more predictable.

Negative: – There is a potential for under/over recovery; and this only provides a proxy for the cost of delay.

8.6. The Proposer presented simplified calculations to demonstrate the methodology for recovering the financing costs for a delay or backfeed. This charge will be applied annually in equal instalments over the period of the delay or backfeed.

- Total Delay Financing Charge relating to a d year delay
= Expenditure to Date * $((1+WACC^d)-1)$
- Total Backfeed Financing Charge relating to a d year advancement
= Advanced Expenditure * $((1+WACC^d)-1)$

8.7. A Workgroup member questioned what happens if there is a delay for three months. The Proposer confirmed that if the delay/backfeed does not go over a financial year then there is no charge as the TO funding position and therefore TNUoS charges are unaffected. However, this would not be the case if there was a delay of three months, then the TO allowance would be delayed 1 year later, and the charge should reflect this.

8.8. The Proposer explained that these charges assume Total Expenditure = Total Allowance. The charges will not vary with if there are any changes in allowance arrangements to avoid the effect of funding mechanisms (e.g. Unit Cost Allowances in volume driven Uncertainty Mechanisms change between Price Controls).

8.9. The Proposer explained that this also assumes the Income can be treated as negative Totex under the TO licence, (i.e. it removes the RAV addition through TIM, rather than

using a charge and refund approach under the ESO licence, therefore rectifying any impact of tax and depreciation adjustments).

8.10. The Proposer went onto explain that he had considered the issues around reuse and cancellation charges, and was proposing the following solutions:

- **Re-Use:** Following reuse of any of the works considered within the delay charge, the charge will be reconciled to remove any financing charges relating to the timeframe following the reallocation of the works to another customer.
- **Cancellation Charges:** During the calculation of Actual Attributable Cancellation Charges, there will be an adjusted to reflect the financing proportion of a delay charge, so there is no double counted e.g. expenditure incurred prior to a two-year delay will be subject to two year's less interest in the Cancellation Charge Calculation.

8.11. A Workgroup member requested clarification on whether Re-Use would also apply to assets. The Proposer confirmed that it included all investments, included assets that were re-used.

8.12. The Workgroup questioned what would happen if a generator requested a delay and the TO still decided to go ahead with the works. Would the impact of a later delay still be the same. The Proposer confirmed it would.

Solution - CMP289:

8.13. The Proposer stated that the National Grid ESO representative had already highlighted the advance information that will be provided to aid transparency. This includes:

- **Bi-annual Cost profiles:** Updated expenditure to date, 6 monthly forward looking forecast cost profiles covering a minimum 12-month period. This will be provided to developers, utilising the existing CUSC securities processes, where possible.
- **Quarterly Reporting:** Written updates on forthcoming significant milestones provided on a quarterly basis as part of quarterly reporting.
- **Charge calculation tool:** The ESO to publish and maintain a charge calculator tool, to enable customers to utilise cost profile information to calculate potential charges under different scenarios.

8.14. The Workgroup questioned if there will be any kind of appeals process, if they are not happy with the information that is provided on the bi-annual or quarterly reports. The National Grid ESO Representative confirmed there will be a process within the quarterly milestones for developers to follow if they are not happy with the format or information contained within these reports.

8.15. The Workgroup questioned what would happen in relation to non-attributable works. This could result in developers receiving a large charge for something that they were unaware of. The Proposer and National Grid ESO representative stated there is already a level of information out there to stop this from occurring, and the only reason a developer would not be able see this information was if they had not fixed their security profile. The Workgroup highlighted that the TO may have made decisions to invest in the past which the developer was unaware of, until he receives the bi-annual and quarterly milestone

reports. Any future delay will result in a charge relevant to that asset, which does not seem fair.

9. Implementation

- 9.1. A Workgroup member stated that if a developer is paying for the additional cost of a delay/backfeed they should have significant advance notice of that potential charge. There should be no retrospective application of the modification for current projects and it should only start from connection agreements that are issued upon implementation
- 9.2. The Proposer stated there were two alternate views to this, one that it could apply retrospectively (i.e. to future delays, based upon the full financial commitment to date) which would be consistent with to the implementation of CMP192; or that it would only apply to forward looking costs from implementation.
- 9.3. A Workgroup member stated that CMP192 had a long transition period so that parties could do changes like opting out (i.e. termination prior to implementation), but in this context, it would apply to everyone who chooses to delay going forwards which would be unfair given the impact.
- 9.4. Another Workgroup member questioned whether it should apply to current projects already in progress where the TO/ESO have not provided any advance documentation on the costs of a delay or backfeed. As this information, would have affected the developer's strategy and approach on the project.
- 9.5. The Workgroup highlighted that the Proposer needed to recognise that there will be issues around transition and it won't be as straightforward as other charges to the CUSC which are implemented 10 days after the authority decision. There must be some transitional arrangements in place for those projects that are in development or at various stages in their life.
- 9.6. The Proposer stated that the options that the modification could apply to are:
 - 1) New offers going forwards (from conception);
 - 2) Anything that delays from implementation, ignoring spend has been in the past; or
 - 3) Applies to anything delayed from implementation with charges based on spend incurred both pre-and post-implementation.

A Workgroup member raised concerns and stated that a charge should only be valid if the developer has been made aware of the spend in advance of it being made, regardless of when the proposal is implemented.

- 9.7. The Proposer indicated that option 3 was their preferred approach, highlighting that One-Off charges applied under the existing arrangements and are currently used to recover delay and backfeed costs, on the basis that cost information being provided to customers, and guidance is available on the methodology.
- 9.8. After further Workgroup discussions, the view of the Proposer was that it should apply to all modification applications, including previous spend and be implemented as soon as possible. However, the Proposer recognised that other TOs are not in as good a position

as them to provide a view of the potential costs, and this could lead to a slight delay in implementation.

- 9.9. The Proposer highlighted that a decision by Ofgem on this modification would now be unlikely until the next charging year and will probably take TOs 6 months to prepare for the application of CMP289, with cost information being required prior to initial charges. On this basis, the Workgroup agreed that implementation of CMP289 from October 2019 with CMP288 implemented in April 2020 would seem a logical approach. This will allow parties enough time to receive the advance information and understand the impact of the modifications. In the meantime, they will continue to use the existing charging arrangements.
- 9.10. A Workgroup member questioned whether this could result in a double charge. If there were two consecutive delays across different charging years. The Proposer stated there would be a need to agree a process in place to avoid potential issues around what would happen if someone paid a delay charge for two years (prior implementation) and then decided to bring their works forward by a year post implementation and how the costs would be reconciled. The Workgroup discussed these issues further and agreed that whatever arrangements are in place at the time the modification application is submitted, should apply.

10. Subsequent STC changes

- 10.1. The National Grid ESO representative confirmed that he had identified two subsequent changes that would be required to the STC, but stating this may need reviewed to see if any further changes were needed. The changes that would need to be made are:
- Schedule 9 Paragraph 7.5 of the STC to allow for the provision of information within the charge calculator; and
 - Section D, Part 2, Paragraph 9.2 which relates to quarterly reporting. This is currently backward looking so would need to be amended to take a more forward looking approach.
- 10.2. The Proposer highlighted that some minimal changes may also be required to the treatment of Totex, as well as changes to the schedules that deal with different types of charges (i.e. TO charging the SO).

6 Workgroup Consultation Questions

The CMP288/289 Workgroup is seeking the views of CUSC Parties and other interested parties in relation to the issues noted in this document and specifically in response to the questions highlighted in the report and summarised below:

Standard Workgroup Consultation questions:

- Q1:** Do you believe that CMP288/289 Original proposal better facilitates the Applicable CUSC Objectives?
- Q2:** Do you support the proposed implementation approach?
- Q3:** Do you have any other comments?
- Q4:** Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?

Specific CMP288/289 Workgroup Consultations Questions:

- Q5:** Do you believe this consultation covers all the relevant interactions between other liability/charging mechanism currently in place in addition to cancelation and connection charge? If not, please can you provide further information.
- Q6:** Do you agree with the scope of the works which are proposed to be used to calculate the charge?
- Q7:** Do you agree with the proposed level of granularity, timing of the proposed information exchange and the period it covers?
- Q8:** Do you agree with the proposed quarterly reporting of/provision of milestones?
- Q9:** Do you believe the report has captured all the cross code/licence issues relevant to these modifications?
- Q10:** Do you agree that the wording of the CUSC should be amended to clarify that one-off charges will be issued to recover additional incremental costs incurred to facilitate a User requested delay or backfeed? If so, do you think this should include a list of example such one off costs that can be incurred for delays and backfeeds?
- Q11:** Do you support either of the solutions proposed for calculating financing charges in relation to shared and wider enabling works? Do you have another solution which may be better?
- Q12:** Do you agree with the proposed approach that the delay/backfeed charges should be paid as the costs are incurred? Or do you feel they should be paid in an alternative timeframe (e.g. the point of connection)?
- Q13:** Do you agree with the one month deadline to notify the TO of an intention to delay, to allow the TO to reassess its investment strategy?
- Q14:** Do you agree that individual TOs' regulated Weighted Average Cost of Capital (WACC) should be used as the financing rate to calculate the proposed financing charges?

Please send your response using the response proforma which can be found on the National Grid ESO website via the following links:

<https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/explicit-charging-arrangements-customer>

<https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/consequential-change-support-introduction>

In accordance with Section 8 of the CUSC, CUSC Parties, BSC Parties, the Citizens Advice and the Citizens Advice Scotland may also raise a Workgroup Consultation Alternative Request. If you wish to raise such a request, please use the relevant form available at the weblink below:

<https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/cusc-modifications>

Views are invited upon the proposals outlined in this report, which should be received by **5pm** on 31 January 2019.

Your formal responses may be emailed to: cusc.team@nationalgrid.com

If you wish to submit a confidential response, please note that information provided in response to this consultation will be published on National Grid’s website unless the response is clearly marked “Private & Confidential”, we will contact you to establish the extent of the confidentiality. A response marked “Private & Confidential” will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the CUSC Modifications Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.

Please note an automatic confidentiality disclaimer generated by your IT System will not in itself, mean that your response is treated as if it had been marked “Private and Confidential”

7 Relevant Objectives

CMP288: Impact of the modification on the Applicable CUSC Objectives (Charging):

Relevant Objective	Identified impact
(a) That compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;	Positive. The proposal removes additional financing costs related to individual customer delays and backfeeds, which removes a potential cross-subsidy between CUSC parties.
(b) That compliance with the use of system charging methodology results in charges which reflect, as far as	Positive. The proposal ensures that the cost of

<p>is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard licence condition C26 requirements of a connect and manage connection);</p>	<p>delays and provision of backfeeds is reflected in charges made to the party causing the cost.</p>
<p>(c) That, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees’ transmission businesses;</p>	<p>None</p>
<p>(d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency. These are defined within the National Grid Electricity Transmission Plc Licence under Standard Condition C10, paragraph 1 *; and</p>	<p>None</p>
<p>(e) Promoting efficiency in the implementation and administration of the CUSC arrangements.</p>	<p>Positive. Including explicit charging arrangements for one-off incremental costs improves transparency of the CUSC arrangements.</p>

*Objective (d) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

CMP289: Impact of the modification on the Applicable CUSC Objectives (Standard):

Relevant Objective	Identified impact
<p>(a) The efficient discharge by the Licensee of the obligations imposed on it by the Act and the Transmission Licence;</p>	<p>Positive. This proposal facilitates a charging change that providing a a cost reflective signal on parties connecting to the Transmission system, and provides transparency to enable Users to assist TOs in undertaking transmission works economically and efficiently.</p>
<p>(b) Facilitating effective competition in the generation and</p>	<p>Positive. This proposal</p>

supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity;	facilitates a charging change that ensures that the cost of delays and provision of backfeeds is reflected in charges made to the party causing the cost
(c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and	None
(d) Promoting efficiency in the implementation and administration of the CUSC arrangements.	Positive. Providing additional transparency of TO expenditure improves transparency of the CUSC arrangements.
*Objective (c) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).	

8 Implementation

The view of the Proposer was that CMP288/289 should be implemented 10 Business Days following a decision by the Authority, as the supported proposal to modify the charging arrangements relate to one-off charges, and adjustments to TNUoS Recovery Requirements in subsequent years' charges.

9 Legal Text

Text Commentary

The legal text will be developed by the Workgroup after the Workgroup Consultation.

10 Annex 1: Terms of Reference CMP288/289

Workgroup Terms of Reference and Membership

TERMS OF REFERENCE FOR CMP288/289 WORKGROUP

CMP288 seeks to introduce explicit charging arrangements to recover additional costs incurred by Transmission Owners and TNUoS liable parties as a result of transmission works undertaken early due to a User initiated delay to the Completion Date of the works, or to facilitate a backfeed.

CMP289 seeks to introduce changes to non-charging sections of the CUSC to support the introduction of explicit charging arrangements to recover additional costs incurred by Transmission Owners and TNUoS liable parties as a result of transmission works undertaken early due to a User initiated delay to the Completion Date of the works, or to facilitate a backfeed. The changes to the charging element of the CUSC are covered under CMP288.

Responsibilities

1. The Workgroup is responsible for assisting the CUSC Modifications Panel in the evaluation of CUSC Modification Proposals **CMP288 Explicit charging arrangements for customer delays and backfeeds and CMP289 Consequential change to support the introduction of explicit charging arrangements for customer delays and backfeeds via CMP288**, tabled by NGET at the Modifications Panel meeting on 23 February 2018.
2. The proposal must be evaluated to consider whether it better facilitates achievement of the Applicable CUSC Objectives. These can be summarised as follows:

Charging Applicable Objectives

- (a) That compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;
- (b) That compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard license condition C26 requirements of a connect and manage connection);
- (c) That, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses;
- (d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency. These

are defined within the National Grid Electricity Transmission plc. License under Standard Condition C10, paragraph 1; and

- (e) Promoting efficiency in the implementation and administration of the system charging methodology.

Standard Objectives

(a) The efficient discharge by the Licensee of the obligations imposed on it by the Act and the Transmission Licence;

(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;

(c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency; and

(d) Promoting efficiency in the implementation and administration of the CUSC arrangements.

3. It should be noted that additional provisions apply where it is proposed to modify the CUSC Modification provisions, and generally reference should be made to the Transmission Licence for the full definition of the term.

Scope of work

4. The Workgroup must consider the issues raised by the Modification Proposal and consider if the proposal identified better facilitates achievement of the Applicable CUSC Objectives.
5. In addition to the overriding requirement of paragraph 4, the Workgroup shall consider and report on the following specific issues:
 - a) Transition implementation arrangements
 - b) Asset identification and asset access
 - c) Paying for delay for User
 - d) WACC publication
 - e) Information flow ahead of commitment stage gates
 - f) Assessment of materiality of the costs
6. The Workgroup is responsible for the formulation and evaluation of any Workgroup Alternative CUSC Modifications (WACMs) arising from Group discussions which would, as compared with the Modification Proposal or the current version of the CUSC, better facilitate achieving the Applicable CUSC Objectives in relation to the issue or defect identified.
7. The Workgroup should become conversant with the definition of Workgroup Alternative CUSC Modification which appears in Section 11 (Interpretation and Definitions) of the CUSC. The definition entitles the Group and/or an individual member of the Workgroup to put forward a WACM if the member(s) genuinely believes the WACM would better facilitate the achievement of the Applicable CUSC Objectives, as compared with the Modification Proposal or the current version of the CUSC. The extent of the support for the

Modification Proposal or any WACM arising from the Workgroup's discussions should be clearly described in the final Workgroup Report to the CUSC Modifications Panel.

8. Workgroup members should be mindful of efficiency and propose the fewest number of WACMs possible.
9. All proposed WACMs should include the Proposer(s)'s details within the final Workgroup report, for the avoidance of doubt this includes WACMs which are proposed by the entire Workgroup or subset of members.
10. There is an obligation on the Workgroup to undertake a period of Consultation in accordance with CUSC 8.20. The Workgroup Consultation period shall be for a period of **15 working days** as determined by the Modifications Panel.
11. Following the Consultation period the Workgroup is required to consider all responses including any WG Consultation Alternative Requests. In undertaking an assessment of any WG Consultation Alternative Request, the Workgroup should consider whether it better facilitates the Applicable CUSC Objectives than the current version of the CUSC.

As appropriate, the Workgroup will be required to undertake any further analysis and update the original Modification Proposal and/or WACMs. All responses including any WG Consultation Alternative Requests shall be included within the final report including a summary of the Workgroup's deliberations and conclusions. The report should make it clear where and why the Workgroup chairman has exercised his right under the CUSC to progress a WG Consultation Alternative Request or a WACM against the majority views of Workgroup members. It should also be explicitly stated where, under these circumstances, the Workgroup chairman is employed by the same organisation who submitted the WG Consultation Alternative Request.

12. The Workgroup is to submit its final report to the Modifications Panel Secretary on 13 Feb 2019 for circulation to Panel Members. The final report conclusions will be presented to the CUSC Modifications Panel meeting on 22 Feb 2019.

Membership

13. It is recommended that the Workgroup has the following members:

Role	Name	Representing
Chairman	Joseph Henry	Code Administrator
Technical secretary	Shazia Akhtar	Code Administrator
National Grid Representative*	Wayne Mullins (proposer) Rachel Tullis	National Grid
Industry Representatives	Garth Graham Laurence Barrett Jeremy Guard Joe Dunn Tim Ellingham Paul Mott	SSE EON First Utility Scottish Power RWE EDF Energy

	Andy Vaudin Joshua Logan Robert Longden Nicola Percival Debra MacPherson	EDF Energy (Alternate) Drax Power Cornwall Energy Innogy Scottish Power
Authority Representatives	James Thomson	OFGEM
Observers	Richard Woodward	NGET (TO)

NB: A Workgroup must comprise at least 5 members (who may be Panel Members). The roles identified with an asterisk in the table above contribute toward the required quorum, determined in accordance with paragraph 14 below.

14. The chairman of the Workgroup and the Modifications Panel Chairman must agree a number that will be quorum for each Workgroup meeting. The agreed figure for CMP286 is that at least 5 Workgroup members must participate in a meeting for quorum to be met.
15. A vote is to take place by all eligible Workgroup members on the Modification Proposal and each WACM. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference). The Workgroup chairman shall not have a vote, casting or otherwise]. There may be up to three rounds of voting, as follows:
 - Vote 1: whether each proposal better facilitates the Applicable CUSC Objectives;
 - Vote 2: where one or more WACMs exist, whether each WACM better facilitates the Applicable CUSC Objectives than the original Modification Proposal;
 - Vote 3: which option is considered to BEST facilitate achievement of the Applicable CUSC Objectives. For the avoidance of doubt, this vote should include the existing CUSC baseline as an option.

The results from the vote and the reasons for such voting shall be recorded in the Workgroup report in as much detail as practicable.
16. It is expected that Workgroup members would only abstain from voting under limited circumstances, for example where a member feels that a proposal has been insufficiently developed. Where a member has such concerns, they should raise these with the Workgroup chairman at the earliest possible opportunity and certainly before the Workgroup vote takes place. Where abstention occurs, the reason should be recorded in the Workgroup report.
17. Workgroup members or their appointed alternate are required to attend a minimum of 50% of the Workgroup meetings to be eligible to participate in the Workgroup vote.
18. The Technical Secretary shall keep an Attendance Record for the Workgroup meetings and circulate the Attendance Record with the Action Notes after each meeting. This will be attached to the final Workgroup report.
19. The Workgroup membership can be amended from time to time by the CUSC Modifications Panel.

Appendix 1

Approved latest timeline CMP288/289:

Initial consideration by Workgroup	March–December 2018
Workgroup Consultation issued to the Industry	January 2019
Modification concluded by Workgroup	February 2019
Workgroup Report presented to Panel	March 2019
Code Administration Consultation Report issued to the Industry	April 2019
Draft Final Modification Report presented to Panel	May 2019
Modification Panel decision	May 2019
Final Modification Report issued the Authority	June 2019
Decision implemented in CUSC	August 2019