nationalgrid

Stage 03: Workgroup Report Volume 1

Connection and Use of System Code (CUSC)

CMP192 Arrangements for Enduring Generation User Commitment

What stage is this document at?

01	Initial Written Assessment
02	Workgroup Consultation
03	Workgroup Report
04	Code Administrator Consultation
05	Draft CUSC Modification Report
06	Final CUSC Modification Report

This CUSC Modification Proposal seeks to add a new section to the CUSC which will replace the existing methodology used to determine a generator's financial liabilities in relation to the provision of new or additional transmission capacity.

This document contains the discussion of the Workgroup which formed in March 2011 to develop the new methodology. Along with the original proposal, twelve Workgroup Alternatives have been developed and put forward.

Published on: **22nd September 2011**

The Workgroup Recommendation:

The Workgroup identified twelve Alternative proposals which the majority considered better facilitated one or more of the CUSC objectives, excluding the Original. There was no majority support for any individual proposal as being the one which best facilitated the CUSC objectives, however the majority of the Workgroup favoured WACMs that were variations on a two year notice period for post-commissioning generators.

High Impact:
Generators, Transmission Owners

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Any Questions?

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About this document

This document summarises both the discussions of the Workgroup members and the views provided during the Workgroup consultation in relation to the issues raised by the original CMP192 CUSC Modification Proposal which was put forward by National Grid on 25th February 2011.

Document Control

Version	Date	Author	Change Reference
1.0	19 July 2011	National Grid	Industry Consultation
2.0	22 September 2011	National Grid	Report to CUSC Panel

1 Summary

1.1 This document describes the Original CMP192 CUSC Modification Proposal (the Proposal), summarises the deliberations of the Workgroup and the Workgroup Alternative CUSC Modification (WACM) proposals.

1.2 CMP192 was proposed by National Grid and submitted to the Modifications Panel for their consideration on 25th February 2011. A copy of the Proposal is provided in Annex 1. The Modifications Panel determined that the Proposal should be considered by a Workgroup and that the Workgroup should report back to the Modifications Panel meeting within 5 months following a period of Workgroup Consultation. The timetable was subsequently extended by the Panel to 7 months in order to allow additional time for further deliberation given the complexity and breadth of the issue.

1.3 The Workgroup first met on 7th March 2011 and the members accepted the Terms of Reference for CMP192. A copy of the Terms of Reference is provided in Annex 3. The Workgroup considered the development of the Proposal, the issues raised by it and considered whether the Proposal and the options for potential Workgroup Alternative CUSC Modifications would better facilitate the Applicable CUSC Objectives during its 10 meetings. The Workgroup believes it has completed the requirements of the Terms of Reference as agreed with the Panel by submitting this report.

1.4 The Proposal aims to codify the new arrangements for calculating user commitment liabilities for pre and post commissioning Users. These arrangements will replace the Final Sums process and Interim Generic User Commitment Methodology (IGUCM) for pre-commissioning Users, and the requirement to pay a TNUoS-based TEC Reduction Charge for post-commissioning Users.

1.5 The CMP192 proposed arrangements are based on incentivising generation Users to provide notice of cancellation/closure/TEC reduction in a timely manner within a four year period such that inefficient transmission investment by the TOs can be minimised. The Proposer believes that this better meets the CUSC objectives by applying more robust governance around User Commitment, removing a barrier to entry, addressing the question of different treatment of pre- and post-commissioning users, and better reflecting the risk profile of transmission investment. This will be achieved through a generic CAPEX based methodology for wider investment applicable to both pre and for post-commissioning Users, and a more specific methodology for local investment that falls away on commissioning of the Power Station.

1.6 In calculating the wider and local liabilities, the Proposal includes a number of factors to more accurately reflect the risk of inefficient or stranded assets, and avoid over-securitisation of new investments. These factors cover sharing risk with consumers, potential for asset reuse by TOs, catch-up investment due to Connect & Manage, and 'future proofing' by TO's.

1.7 A number of options for potential Workgroup alternatives have been discussed by the Workgroup, focusing mainly around reducing the duration of the notice period from 4 to 2 years; increasing the sharing of risk with consumers where demand users also derive a benefit; using project information as a proxy for securities; grandfathering; and specific cost allocation prior to four years before commissioning. A number of these options were developed into Workgroup Alternative CUSC Modification (WACM) proposals as a result of feedback to the Workgroup consultation process and post consultation discussions by the Workgroup.

1.8 The Workgroup vote on whether or not the Original and each WACM proposal better facilitated the Applicable CUSC Objectives resulted in each of the twelve WACMs receiving majority support for better facilitating at least one of the applicable CUSC objectives. Some members of the Workgroup believed that the Original better facilitated one or more of the objectives, but this did not receive majority support.

1.9 Of the twelve, no single WACM received majority support as best facilitating the Applicable Objectives, however the majority of the Workgroup favoured WACMs that were based on a two year notice period for post-commissioning generators. The WACM that had the most support was WACM 8, which received five votes out of a possible fourteen.

1.10 This Workgroup Report has been prepared in accordance with the terms of the CUSC. An electronic copy can be found on the National Grid Website, www.nationalgrid.com/uk/Electricity/Codes/, along with the Modification Proposal Form.

2 Background

2.1 Under the current security arrangements, electricity generators who wish to connect to and / or use the GB transmission system have to provide a level of financial security for the period from signature of a connection agreement to commissioning of their Power Station. This is a contractual obligation (set out in the CUSC) between the customer and National Grid who acts in its role as the National Electricity Transmission System Operator (NETSO). The security arrangements remain in place from the date that the connection offer has been signed by the customer until the Power Station is commissioned, operational and liable to pay Transmission Network Use of System (TNUoS) charges. Similar arrangements exist for Embedded Generation, but through the Distribution Network Operators (DNOs), where they would have a material impact on the Transmission system.

2.2 This liability can be secured via a methodology which is known as Final Sums Liabilities (FSL)[1]. FSLs are intended to protect the Transmission Owners (TOs) from the financial risk of a generator cancelling their project, which could lead to assets built by the TOs being stranded as they are no longer being used by the original generator and are not capable of being reused. National Grid has found no evidence, to date, of actual electricity transmission assets in GB being "stranded", i.e. transmission assets that have not been allowed to form part of the regulated asset base (RAB) and for which there is no revenue recovery through the TNUoS charges. Although National Grid remains mindful of regulatory requirements in relation to transmission asset stranding, in previous price control and user commitment proposals Ofgem has stated that there is an issue with the current arrangements to prevent this risk.

2.3 FSLs generally track the costs incurred by the TO in building the infrastructure to allow the generator to connect to the transmission system. However, these costs are uncertain for Generators as they are estimates and can vary depending on various factors. In particular, Users may be liable for a share of "wider" construction works related to transmission system works required to accommodate the connection of several Power Stations. This may create a risk of unpredictable liabilities for generators and the possibility that these liabilities may increase significantly if other generator projects cancel. Consequently, these wider liabilities may be substantial when compared with the cost of the construction of an individual Power Station. This may create a barrier for smaller generators, such as renewables, by making it more difficult to obtain finance in order to connect to the transmission network.

2.4 Following the last regulatory Transmission Price Control Ofgem initiated and chaired the Access Reform Options Development Group (ARODG). ARODG was set up in April 2006 to tackle transmission access issues and identifying potential reform. In order to address the issues identified at ARODG, National Grid introduced an Interim Generic User Commitment Methodology (IGUCM)[2]. This was based on a fixed formula which used multiples of annual generation Transmission Network Use of System (TNUoS) charges as a proxy for the level of transmission investment, and which aimed to provide a more stable and predictable security regime for Generators.

2.5 In conjunction with IGUCM, National Grid also reviewed user commitment for new and existing generators and introduced a proposal for an enduring

[1] April 2010 Final Sums Liabilities consultation
[2] http://www.nationalgrid.com/uk/Electricity/GettingConnected/PoliciesAndGuidance/

arrangement under CUSC Amendment Proposal 131 (CAP131). This was submitted to the CUSC Panel in September 2006[3], however was rejected by the Authority on 13th October 2008[4]. In their decision letter, the Authority noted that the proposed arrangements potentially discriminated between new and existing generators, and that there was not enough justification provided for the differing treatment. The Authority concluded that the closure of an existing generator has the same impact on transmission investment as the cancellation of a new generator.

2.6 In July 2010, following concerns about the scale and extent of existing Final Sums Liabilities, Ofgem agreed that National Grid could implement an interim solution whereby National Grid did not require security for wider transmission investment works from generators. Both the IGUCM arrangements and the interim exclusion of wider transmission from Final Sums were time-limited to 31st March 2011 (recently extended to 31st March 2012), subject to the development of an enduring solution to the user commitment arrangements.

2.7 In August 2010 Ofgem initiated Project TransmiT, the objectives of which were to review the charging and connection arrangements in the context of sustainability, affordability and security of supply achieving a timely move to a low carbon energy sector. Following an initial consultation a significant area of concern for the industry was identified as User Commitment, in particular securities associated with user commitment for pre commissioning generation and the potential volatility in the liabilities and associated security. In response to this, Ofgem stated in their open letter of 25th January 2011[5] that: "We now expect NGET to focus, as a matter of priority, on developing an enduring solution for User Commitment."

2.8 CMP192 represents National Grid's proposal to introduce such an enduring user commitment solution, taking into account the areas of concern raised in the Authority's decision letter on CAP131 and mindful of the issues raised in the responses to the Project TransmiT consultation.

[3] CAP131 Proposal form and other relevant documentation, including the decision letter from the Authority can be found at http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/amendment_archive/

[4] Rejection of CAP131 [4] Rejection of CAP131 http://www.ofgem.gov.uk/Licensing/ElecCodes/CUSC/Amend/Documents1/CAP131D.pdf

[5] http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=80&refer=Networks/Trans/PT

3 Modification Proposal

3.1 CMP192 seeks to add a new section to the CUSC defining the principles of user commitment as they apply to Power Stations. This will completely replace the existing arrangements and will impact on the bilateral connection agreements. This section of the Workgroup Report details the principles and methodology, as suggested by The Proposer (National Grid) and developed with the Workgroup, to determine individual Generators' user commitment liabilities and the level of securities required against these liabilities.

3.2 It is the Proposer's contention that adding or removing generation from the transmission system has an equal and opposite effect on the need for network capacity, therefore it is clear that both pre- and post-commissioning Power Stations affect decisions on new transmission investment. Whilst the cancellation of a pre-commissioning Power Station could affect attributable and wider transmission system investment decisions, the closure of a post-commissioning Power Station will only affect new wider transmission system investment decisions. CMP192 focuses on information to assist transmission companies to efficiently manage ongoing new investments on the transmission system, and hence avoid under-utilisation of assets.

3.3 The Proposer also contends that a reduction in TEC has the same effect on transmission investment plans as the cancellation or closure of a similar-sized Power Station, and therefore where cancellation or closure is mentioned this should be read as to include TEC reduction.

3.4 The Proposer further believes that user commitment should apply equally to pre-commissioning embedded generators, subject to National Grid having a robust contractual relationship to enforce it. Where this does not exist, the user commitment liabilities would be sought from the DNO. The capacity for the user commitment liabilities would be the TEC in the BEGA or capacity in the BELLA agreements / Construction Agreement associated with a Statement of Works. This is discussed further in Section 9 (paragraph 9.69).

3.5 For post-commissioning embedded generators the Proposer believes that as a result of Government policy (a direct consequence of licence exemptions), and also due to the lack of an enduring contractual relationship, small BEGAs / BELLA's / other small embedded are currently treated differently and therefore they should not provide user commitment.

3.6 Therefore it is proposed, with CMP192, that generator user commitment liabilities are calculated as follows:-

- a Cancellation Amount for pre-commissioning Power Stations that takes account of transmission investment for attributable and wider works; and
- a Cancellation Amount for post-commissioning Power Stations that takes account of the investment for wider works only.

3.7 The Proposer suggested eight main considerations that the enduring solution must consider in determining the nature and level of liabilities and the reasonable level of securities required against these liabilities:

1. Protecting the end consumer from undue risk
2. The minimum notice period required to alter TO investment before significant costs are incurred

3. Profile of TO investment costs
4. Likelihood of Power Stations either cancelling or closing
5. Total Value at Risk (VAR)
6. Level of transmission capacity sharing between Power Stations
7. Proportion of TO investment not at risk due to Connect & Manage regime
8. Level of transmission asset reuse

Protecting the end consumer from undue risk

3.8 The Proposer contends that the consequence of a Power Station cancelling or closing is that Transmission Owner (TO) investment could be incurred unnecessarily, with insufficient time to allow the TO to take action to avoid the new investment. The current and interim arrangements for user commitment assume that a User's liability is proportional to the cost of this unnecessary investment (or a generic proxy for the cost), however it may be that changing this proportion still affords an acceptable risk for end consumers whilst reducing the financing barrier for new Power Stations connections.

3.9 The Proposer contends that as generation and demand both drive wider transmission investment, the risk of such wider investment being inefficiently incurred should be shared 50/50. For attributable investment that is driven directly by generation, however, demand users should not be required to share the risk as there is a low probability of the assets being used in situ, and therefore it should be 100% with generators concerned.

3.10 The determination of the level of liabilities and the securities required against these liabilities must also be considered separately for both attributable and wider works in the context of end consumers accepting a reasonable level of risk. This determination must not be unduly discriminatory or prevent promotion of competition, and should seek to provide a secure and stable business environment. In order to provide values for the Cancellation Amount that effectively account for all potential generators, it is suggested that the definitions of attributable and wider works in the context of user commitment should be based on the current definitions in Section 14 of the CUSC. This defines attributable works as those from the generator up to the connecting MITS node. The Proposer provided a diagram illustrating non-MITS nodes to the Workgroup:

http://www.nationalgrid.com/uk/Electricity/Charges/usefulinfo/

3.11 Following Workgroup discussion that some offshore local works, and possibly even some onshore local works, have the possibility of being extended beyond that initially envisaged as TO make efficient decisions, the Workgroup agreed that the definition should be slightly amended to the 'nearest reasonable MITS' (ref. paragraphs 4.191 and 9.78 - 9.80).

Notice period

3.12 One of the aims of this Proposal is to provide the right incentive so that TOs receive accurate and timely information to aid efficient and economic investment decisions, allowing the efficient discharge of TOs obligations under the Act and Licence. It is therefore proposed that the time period within which a generator has a liability to the TO is based on the notice period that TOs reasonably require to change investment plans with the lowest practicable cost impact. It is recognised that there must be a balance between generators providing TOs with as much notice as possible of their intentions whilst not imposing an onerous and unmanageable requirement on generators to guarantee a level of information that they practically do not have, which would impact upon

effective competition. The Proposer has determined from historic TO investment spend profiles that this optimum notice period for transmission investments is, on average, four years.

Profile of costs

3.13 The Proposer has reviewed the spend profile across the four year period to determine how the profile of transmission investment costs increases. Consistent with the profile used in the IGUCM, the profile steps up over the 4 years in approximately 25% blocks, i.e. year one 25% spend, year two 50% spend, year three 75% spend and year four (year of commissioning) 100% spend.

Likelihood of Power Station closing or terminating

3.14 The Proposer understands that a key area of concern for Developers was the level of security required under the current arrangements, creating barrier to entry and having a negative impact on competition. To address these concerns the Proposal seeks to reduce the security required against the liabilities based on different stages of a Power Station life.

Total Value at Risk (VAR)

3.15 The Proposer believes that the total VAR is effectively the value of new investments that the transmission companies are undertaking that, if better information were available, could be more efficient managed to the advantage of all Users. This is not intended to indemnify all transmission assets, but to incentivise the efficient exchange of information. The Proposer has suggested that this should relate to the TO capital expenditure (CAPEX) in the year of termination.

Level of transmission capacity sharing between Power Stations

3.16 Where it can be identified that parties are sharing access then, the Proposer believes, the arrangements for liabilities should take account of this through a simple ratio of capacity.

Proportion of TO investment not at risk due to Connect & Manage regime

3.17 Under Connect & Manage, Users gain access before all works required by the SQSS are competed, thus creating non compliant boundaries. Since the introduction of BETTA, where total access rights granted were beyound the capability of the system, there have been a number of boundaries that are considered non compliant. The Proposer considers that the risk to end consumers is less when investing on non-compliant boundaries i.e. there is already a demonstrable need. The Proposal therefore seeks to reduce the level of user commitment required for wider works on non-compliant boundaries.

Level of transmission asset reuse

3.18 Finally, the current Final Sums and IGUCM methodologies are based on the forecast TO spend and take no account of the potential for transmission asset reuse. CMP192 proposes that liabilities take account of the potential for asset reuse and therefore avoid unnecessary liabilities. The Proposer believes that a generic transmission asset reuse factor should be included for wider works, whilst a specific factor could be determined for local works.

3.19 Taking the above eight aspects into consideration, the Proposer's methodology for determining user commitment liabilities for pre and post commissioning generators is as follows.

3.20 The proposed CMP192 methodology is based on the principle that user commitment is required to cover the cost of abortive future transmission works rather than indemnifying existing transmission assets. Therefore the methodology asserts that all Users should retain a liability for wider transmission investments, whilst only pre-commissioning Users have a liability for attributable works until the Power Station commissions, at which point the risk of them not delivering benefits to end consumers is minimal. Furthermore, a reduction in TEC by a post-commissioning generator has the same impact on transmission investment plans as the closure of a similar sized pre-commissioning generator, and therefore the user commitment arrangements apply to TEC reductions as well as cancellations and closures.

Methodology for Post-Commissioning Generation

3.21 Post-commissioning generators are liable for a Cancellation Amount which is 100% of the wider unit liability that applies to the zone in which they are connected on a rolling annual basis. Post commissioning generators will not have a liability for attributable works as these as deemed to have been efficiently incurred at the time the Power Station commissioned.

3.22 The Cancellation Amount is determined from the total annual TO CapEx, excluding attributable works. This is scaled by the User Risk Factor (URF), the Global Asset Reuse Factor (GARF) and boundary compliance factors before being apportioned and mapped to the Seven Year Statement (SYS) zones.

3.23 The URF is 50% and exists to recognise the fact that consumer demand also drives wider transmission investment. The GARF is 33% and represents the transmission assets which a TO could potentially reuse on another project. Boundary compliance factors are calculated annually as the ratio between the available capability and the required capability, as detailed in the SYS.

3.24 For example, a 150MW generator in a zone with a unit liability of £4,000/MW will have a Cancellation Amount of £600k.

3.25 In the event that a post-commissioning User wishes to close (or reduce TEC), the amount of notice that it provides to the TO acts to reduce the Cancellation Charge that is levied as shown in the table below. For the avoidance of doubt, if a generator notifies a reduction in TEC further than four years away, the generator will not be liable for a Cancellation Charge, although will retain a profiled liability until it closes.

*Cancellation Charge = Cancellation Amount * Notice Period Profile*

Amount of Notice Provided	Cancellation Charge (as % of the Cancellation Amount
Less than 1 year	100%
Between 1 and 2 years	75%
Between 2 and 3 years	50%
Between 3 and 4 years	25%
Greater than 4 years	0%

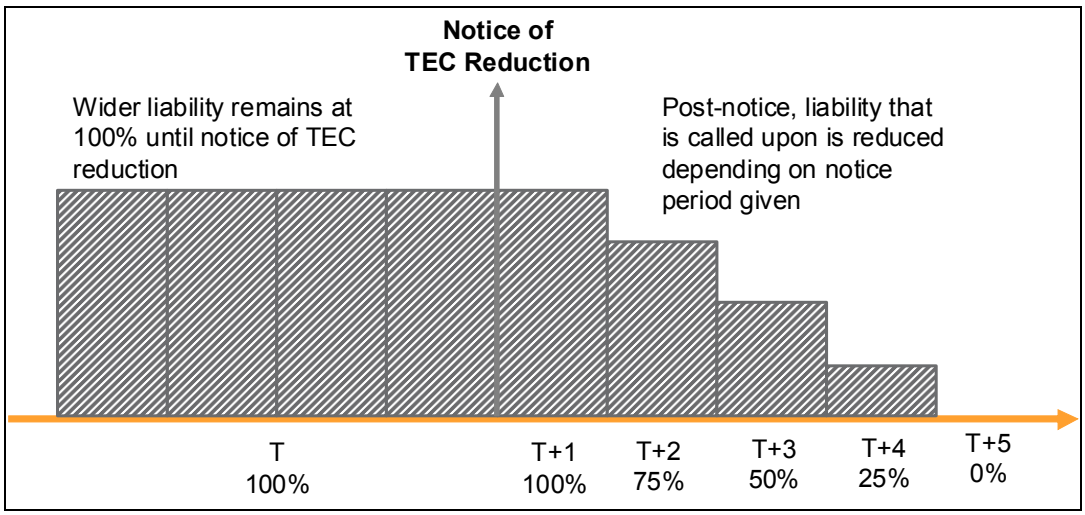
3.26 Whilst the level of TO CapEx (and therefore the Cancellation Amount) will change annually, once a generator has notified its intention to close or reduce TEC, the Cancellation Amount used to calculate the Cancellation

Charge that the generator is liable for will be frozen. If the generator in the previous example gave between 2 and 3 years notice that it was closing, and on the closure date the zonal wider liability had risen to £5,000/MW, the generator would only be liable to pay a Cancellation Charge based on the unit liability at the time notice was given; e.g. £4,000/MW * 150MW * 50% = £300k on closure.

3.27 If a generator provides no notice of TEC reduction, they will be liable for 100% of the current years Cancellation Amount. If a generator provides between 1 and 2 years notice, they would receive a Cancellation Charge based on 75% of the current years Cancellation Amount, which reflects the benefit to the TO of the additional notice given.

3.28 In the event that a generator provides notice of TEC reduction and then changes to reducing TEC within a different timescale, the Cancellation Charge will be updated such that it reflects the new timescale. For example, if a generator notifies closure more than 4 years ahead (0%) and then closes between 2 and 3 years (50%), it will be liable as if it had given between 2 and 3 years notice of closure (50%).

3.29 No security is required from post commissioning generators for the Cancellation Charge liability as a result of their having physical assets.



Methodology for Pre-Commissioning Generation

3.30 Upon signing a connection offer, pre-commissioning generators will incur a liability established on the basis of £1/kW, £2/kW and £3/kW of secured capacity in each year. These liabilities will be capped at £3/kW and generators will be fully financially secured. For generators with a BELLA or Statement of Works agreements, these liabilities would be passed through the relevant DNO. Four financial years prior to commissioning (the Trigger Date), pre-commissioning Users will have a liability based on a zonal wider liability as described above, plus a specific attributable liability.

3.31 A post-Trigger Date pre-commissioning generator's Cancellation Amount will be made up of two parts, wider and attributable. The wider liability amount is calculated annually for all generators (pre and post) as a £/MW unit liability, and varies by the SYS study zone that the user is connecting to as per an equivalent post-commissioning user. The attributable liability amount is specific to the attributable works required for that Power Station, once sharing with any nearby Powers Stations is accounted for (i.e. sharing as a result of clustering):

Cancellation Amount = Attributable Liability + Wider Liability

3.32 Attributable works are based on the current charging definition of MITS in CUSC Section 14 although qualified by 'nearest reasonable'; i.e. investment up to a MITS node (MITS nodes are defined as those nodes with more than 4 transmission circuits, or 2 or more transmission circuits and a GSP). Where the nearest reasonable MITS is not the connection MITS, the attributable works will be the pro rata share of the transmission capacity to connect the Power Station to the nearest reasonable MITS on the transmission network ('fair share of one leg'); e.g. Offshore attributable works will not include onshore reinforcement forced offshore or TO future proofing.

3.33 The cost of a User's attributable works is reduced by a Local Asset Reuse Factor (LARF) along with a Strategic Investment Factor (SIF) and any sharing with other Users to arrive at an attributable liability. The attributable liability is not shared with demand consumers, i.e. it has no User Risk Factor (URF).

3.34 The LARF is determined by the TO on a generator-specific basis and represents the transmission assets being constructed for that generator which the TO could potentially reuse on another project. The LARF is generally envisaged to be similar to the GARF unless a project is atypical, this allows for some discussion between developer and the NETSO on a project by project basis.

3.35 The SIF is a discount that applies in the event that a TO builds greater capability than is required for the contracted generation connecting to that asset, and is calculated for each circuit/cable/substation as a ratio of total contracted generation capability against transmission asset capability. Sharing with other Users is then included by reducing the TO CapEx pro-rata based on the secured capacity of the other Users.

3.36 For example, two pre-commissioning generators of 50MW each trigger an attributable circuit investment. The TO decides the most efficient and economic investment is a 150MW capability circuit costing £30M, with an LARF of 20%. The LARF reduces the cost to 80% and the SIF reduces it to (50MW + 50MW) / 150MW = 66%. In this case both generators have a liability for the attributable works of £30M * 80% * 66% = £16M. This is then shared between the two generators pro-rata based on their share of the capability (50MW / 100MW[6]), so each has an attributable liability of £8M.

3.37 The attributable liability may either be (a) fixed four years and six months prior to commissioning, be non-reconcilable and only change in the event of a change to the commissioning date, or (b) variable within the four year period and reconcilable upon cancellation. The generator will have the option to choose between (a) and (b) when signing their contract for connection to the transmission system. If a Generator chooses variable (b), it will receive a 6 monthly update (as under current final sums arrangements), it can switch over to fixed (a) based on the latest 6 monthly update. Once on fixed a Generator cannot switch back to variable. For the avoidance of doubt, the fixed liability that a generator switches to will be based on the latest biannual estimate of attributable costs.

3.38 Upon cancellation or TEC reduction, a pre-commissioning User will incur a Cancellation Charge. This will be attributed to their site at a rate of 25% per year of their Cancellation Amount until full commissioning:

[6] This being the 100MW required for the (two) contracted generators, rather than the 150MW which includes 50MW of strategic investment by the TO.

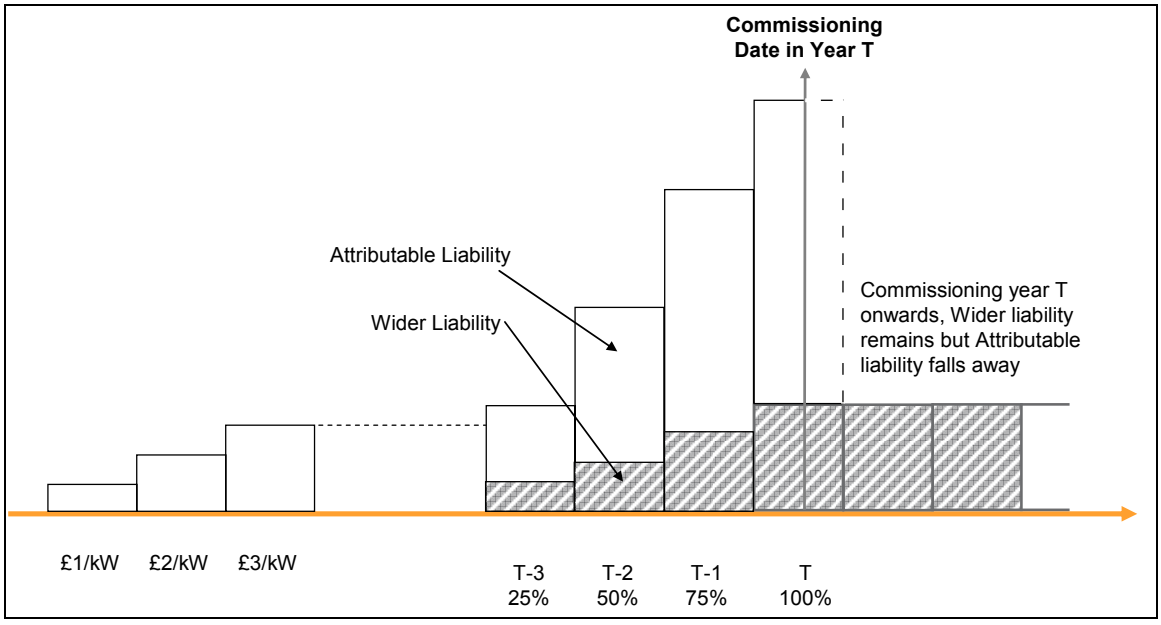
*Cancellation Charge = Cancellation Amount * Notice Period Profile*

3.39 Pre-commissioning generators will be required to secure 42% of their Cancellation Charge up until they can demonstrate that they have achieved all of the Key Consents for their Power Station project. After Key Consents have been obtained, the security will reduce to 10% of the liability. These percentages will be reviewed at the start and mid-point of the transmission price control period, and only changed beyond this in exceptional circumstances to aid stability and certainty. For the avoidance of doubt, the generator specific project Key Consents are as agreed with the TO as a proxy for financial close.

3.40 The NETSO will provide forecast information in line with the current Regulatory Reporting Process so that Users are able to predict the amount of wider works that they will be required to secure (from the following 1st April). The NETSO to provide:

- three-year forecast figures of wider CapEx; and
- actual information on an annual basis.

Therefore in 2012/13 Users can expected to receive from the NETSO the actual amount of wider works they will be securing for financial year 2013-14 along with a forecast of the amount of wider works they will be securing for each of the subsequent three financial year (2014-15, 2015-16 and 2016-17).



3.41 If the project is delayed (by the generator) at any point prior to commissioning by the User, the Cancellation Charge will remain at the existing level before continuing. If the project is delayed at any point prior to commissioning by the TO, the Cancellation Charge will reduce to a previous level consistent with what the profile would have been at that point in time. This may mean that Users move from being within the four year liability period to being within the pre-trigger date £1,2,3/kW period.

3.42 Once a generator has commissioned, the attributable liability reduces to zero and the generator remains liable only for wider transmission investment as a post-commissioning generator.

Transition Period

3.43 Assuming that the Authority agrees implementation of CMP192 for April 2012, with the new regime taking full effect from April 2013, there will be a period of transition from the current interim arrangements to the new arrangements.

3.44 It is proposed that during this period, NGET will send revised agreements / notices to Users no later than September 2012. Users then have the option of either providing notice of closure within four years or transiting to the new arrangements.

3.45 If Users decide not to transit to the new arrangements, they must provide notice of closure by end of November in Y1 (2012) for closing by April 2016 at the latest. They will be expected to continue to pay use of system charges (TNUoS) until closure and will remain liable for the current TEC reduction until 31st March 2015.

3.46 Any User who has not provided notification of closure by November in Y1 (2012) will default to the new arrangements from April 2013. All offers signed from implementation (April 2012) are, by default, on the new arrangements applicable from April 2013.

Information Transparency

3.47 The NETSO will publish aggregated forecast TO CAPEX spend annually, mapped to zones, for the next 4 years. This will also include boundary compliance factors and the Global Asset Reuse Factor. It is anticipated that this could form part of the annual Seven Year Statement publication process. Separately the NETSO is working to place project milestones in construction agreements relating to specific attributable works key dates.

Summary

3.48 Since the user commitment period is similar for both pre and post commissioning generators with respect to wider works, the Proposer believes that the proposal addresses the concerns expressed over discriminatory treatment of generators of wider works identified by Ofgem under CAP131.

3.49 The CMP192 Proposal is that these arrangements will completely replace the current interim Final Sums (Local Works Only) and IGUCM arrangements for identifying generators' liabilities and associated level of securities for pre-commissioning generators and the TEC Reduction Charge for post-commissioning generators.

3.50 The Proposer has undertaken an initial assessment of the impact of the proposal which was included in the Workgroup consultation (Annex 6 – Impact Assessment of Original Proposal).

3.51 During the consultation period, Users were able to request NGET to provide an estimate of wider and attributable liabilities for each of their existing Power Stations and new projects (as applicable) based on CMP192 methodology along with their current (baseline) liabilities (as applicable) for comparison. Approximately 15 companies requested this information, some for multiple sites. National Grid also published a spreadsheet that had indicative wider amounts and liabilities to allow users to calculate the impact of the original proposal:

http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandinggroups/wg/CMP192/index.htm

4 Workgroup Discussion on Technical Aspects

4.1 This section sets out the discussions on the issues arising as a result of the Workgroup assessment of the CMP192 Proposal and the technical aspects of the Terms of Reference (a copy of which can be found in Annex 3). The presentations on the various elements of the Proposal as it was developed are available on the National Grid web site at:

http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandinggroups/wg/CMP192/index.htm

4.2 The main areas of discussion covered in this section are as follows (letters refer to the items in the Terms of Reference):

- Protecting the End Consumer from Undue Risk (a)
- The Period of User Commitment (b & s)
- The Profile of TO Investment Costs (c)
- The Likelihood of Power Stations either Cancelling or Closing (d)
- How the Value at Risk (VAR) is Identified from TO Investment Costs (e)
- The Level of Transmission Capacity Sharing between Power Stations (f)
- The Proportion of TO Investment Not at Risk due to Connect & Manage Regime (g)
- The Level of Transmission Asset Reuse (h)
- The Definition of Attributable and Wider Investment for User Commitment (j)
- Strawman of the Original Proposal

Protecting the End Consumer from Undue Risk (a)

Summary of Discussion

The Proposer believed that the sharing ratio should be established at 50% as this recognised that both generation and demand Users benefit from wider investment in transmission assets. For demand, this benefit includes greater reliability and improved access to competitive generation sources.

The Workgroup felt that there was a clear and fair case for all transmission system Users (generation and consumers via suppliers) to share the risks associated with wider transmission investment. In the absence of any means to quantify the benefits a 50/50 sharing factor was considered (in the view of the majority of the Workgroup) as reasonable.

The majority of the Workgroup consider that as local transmission system assets are less likely to be used following termination (by a pre-commissioning generator for whom they were built) therefore the arguments for a 50/50 sharing factor were not as strong. In this case the Workgroup agreed that it was not unreasonable for generation to have full exposure (100%) to the local VAR. Some Workgroup members did not agree with this position and this is discussed further under Alternatives (see section 6).

Likelihood of Asset Stranding

4.3 Assuming that the transmission investment is included within the TO's RAB, customers only face a "risk" if the investment turns out to be underutilised. Otherwise the TNUoS charges will generate a reasonable rate of return for the TO based on cost reflective charges paid by all Users. However, if the investment is not included in its RAB, with costs excluded from the TNUoS revenue recovery arrangements, the TO faces a risk that transmission assets are "stranded". In practice TO risk is reflected in the TO price control arrangements so the end result for consumers is unlikely to be significantly different.

4.4 The Workgroup queried how often stranding had occurred and National Grid confirmed that no transmission system assets had been stranded in the GB electricity network to date, although there had been some in the gas networks. National Grid noted that the challenges it expects to face going forward are unlikely to be similar to those in the past. Whilst power plants had connected in large volumes previously ('dash for gas'), the expectation going forward was different because plant was expected to share the system much more (given the nature of the generation). Furthermore whilst there had been some large transmission reinforcements undertaken in the past 20 years, the scale of expected reinforcements in the near future were likely to far exceed these. Therefore National Grid did not believe that looking at what transmission system assets had been stranded previously was necessarily a good indication of the true risk of stranding going forward.

4.5 The majority of the Workgroup disagreed with this position, especially when considering that existing generation sites had been shown to be the most likely locations for new thermal plant (mitigating the likelihood of stranding). Additionally, as most of the new investments were focused on supporting sustainability, as part of a clearly stated UK Government policy,

these investments were likely to go ahead. Thus the actual likelihood of stranding of TO transmission system assets remains extremely low in the view of the majority of the Workgroup.

4.6 It was noted that the Government had recently demonstrated their support for timely connection and removing uncertainty through Connect and Manage. These arrangements connect new generation ahead of wider reinforcement reducing the risk of stranding. The Proposer highlighted that the Original Proposal sought to deal with this issue by use of a 'compliance factor' (see issue g); i.e. where the risk of an investment being stranded was low the Value At Risk would be scaled.

Sizing of Wider Works

4.7 Wider works on the transmission system will often be sized/designed not just for the contracting / contracted generators' immediate needs, but to accommodate against wider expectations of future transmission system developments (i.e. 'future proofing'). The Workgroup and the Proposer agreed that, all things being equal, this was a sensible way to proceed.

4.8 The relationship between wider works and specific generation projects is also subjective, and based on previous modification proposals could be perceived as discriminatory from a regulatory perspective if only 'directed' to new Users.

4.9 A further contractual complexity in relation to wider works is that if the TO, through the NETSO draws down on security for wider works and these works are then either directly or indirectly reused, the wider community derives a benefit (improved flexibility, security and possibly reduced constraints). In this case, the TO would need to reimburse the revenue to any Generator that had paid specific final sums based on specific wider transmission projects. The quantification of these benefits is highly subjective on a meshed network. The proposer indicated that this was benefit of a generic incentive based methodology.

Risk for Consumers from Securitisation Options

4.10 Suppliers, representing consumers, and other connectees (i.e. other generators) could face increased transmission charges where investment results in TOs investing in capacity that is underutilised. The TO(s) could also face a risk that their transmission assets are "stranded"; i.e. are not placed in the RAB with the associated costs therefore excluded from the TNUoS revenue recovery arrangements. The Workgroup considered that the potential for asset underutilisation could not be taken in isolation. Rather this has to be considered against the benefits of improving competition, meeting sustainability targets and increasing the flexibility and security of supply provided by the transmission system. The Workgroup considered the arguments for and against directing all of this stranding (of transmission assets) risk to generators against sharing with demand, i.e. consumers.

4.11 Some generation companies have argued that they should not provide any user commitment for wider transmission works as these have a wider, public good, benefit. For example, Users may get a more secure network, or the work may be shared by a number of connections, or the next plant to connect may have lower liabilities as spare capacity is created (addressing the issue associated with the costs accruing to the first mover associated with lumpy transmission investment). The public good element is more important now as different types of plant are connecting (e.g. intermittent generation) and their use of the transmission system is significantly different from existing plant and existing plants' use of the

system will need to change in response. There is also the issue that wider works on the transmission system are likely to be largely delivered after a Power Station energises because of the 'Connect and Manage' regime, thus lowering the risk of stranding (of transmission assets), particularly in respect of new Power Station.

4.12 The Workgroup outlined two policy options for sharing the risk of wider new transmission investments, described below:

1. Suppliers and generators (new and existing) share some of the investment risks: this could be achieved by generators not being required to provide user commitment for all wider works, reflecting the fact that a TO's investment is made based on their best estimates of required investment (based on fundamental economic / probabilistic analysis). The resulting assets, once built, fall into the Regulatory Asset Base (RAB) allowing the TO to make a regulated rate of return on the new assets irrelevant of use. The consumers, along with generators, are therefore as a community of Users indemnifying the TO's investment. The price control arrangements would consider any incentive on these investments.

2. The alternative model is for the generator to signal that they need transmission investment and to provide user commitment for that investment on a plant by plant basis, covering wider and attributable works. Assuming the investment is needed, the generator commences operation, uses the asset and the transmission system investment then goes into the TO's RAB. If the generator pulls out its security pays for the asset that may then not be used. The transmission asset is removed from the TO's RAB and is therefore not charged to the wider consumer and generator community. If in the future the transmission asset is used then the TO would need to 'unwind' the payments (it, via the NETSO, refunds those who paid the a specific asset based sum) and moves the transmission asset in to its RAB.

4.13 It should be noted that these risks never add up to 100% of the TO's capital expenditure on any given project as there is always some potential to "reuse" some of the assets. The transmission assets that could reused, if a specific project did not go ahead, are not a Value At Risk (VAR) for the TO. In the original CMP192 Modification the Workgroup agreed that a level of wider work could reasonably expect to have a reuse value (see issue h, below).

4.14 The Proposer indicated that the original CMP192 Proposal sought to balance these policy objectives, creating an appropriate incentive for generation to pass on as much information as possible to support planning in the transmission system, without an overall negative impact after taking account of sustainability and facilitating competition.

4.15 The two options were discussed in the Workgroup and the tables below presents views of the risks and rewards of the two policy options outlined above.

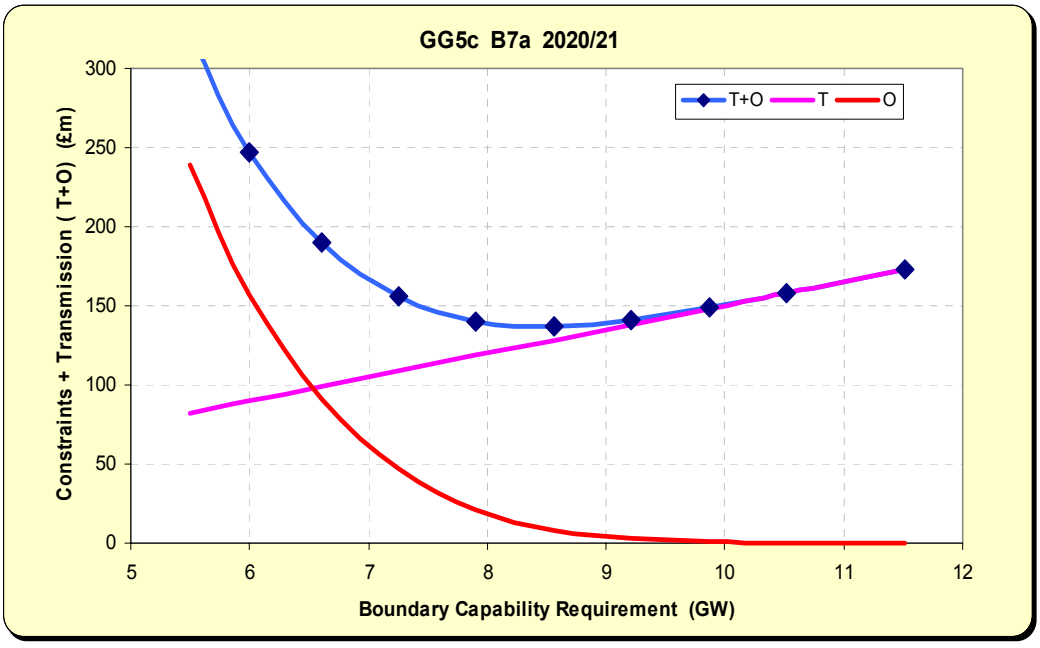
Option 1 - All Users Cover Some Wider Works

4.16 "Wider works" are those required for new generators to connect to the transmission system, as well as work needed as use of the system changes, i.e. for the benefit of all Users

Customer Risk	Customer Reward	Generator Risk	Generator Reward
Pay for unused/ underutilised assets	Facilitates competition by lowering cost of new generation build – more competition, lower energy prices	They may also pay for underutilised capacity (assuming generators pay charges as well)	Lower development costs, especially at early stages
	Creates spare capacity giving flexible dispatch which adds to within day competition	Delivers capacity where they don't want to build – remove link between plant and wider works	Allows quicker development if wider works done – i.e. can connect where TO says there is spare capacity
	Secure supplies as TO can invest in timely manner and "over size capacity" for future use	Could be constrained if not built on time (existing issue under connect and manage)	
	More likely to meet renewables targets if investment easier		Industry benefits from going greener sooner (many companies also have targets)
	Lower constraint costs if TOs do more proactive investment ahead of firm need		Generators benefit from lower constraint costs

4.17 These benefits assume that under the recently introduced enduring Connect and Manage arrangements, a proportion of wider works may be commissioning after the generators have commissioned. This is already the case on several boundaries and has been the case since BETTA as reflected in the operational costs experienced.

4.18 To demonstrate the impact of building 'late', National Grid highlighted that there is an asymmetric risk associated with not building assets, as shown in the following graph:



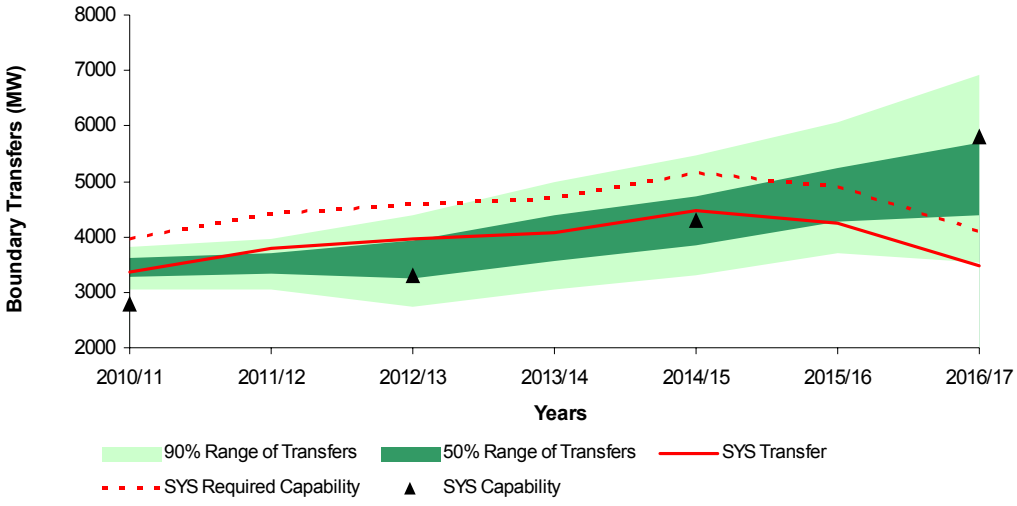
4.19 This graph has been taken from a recent SQSS consultation[7] and shows the change in asset cost and the change in operational cost as boundary capability is varied. The slope of the 'T+O' (blue) curve shows that there is an asymmetric cost associated with sizing the transmission network slightly higher compared to the theoretical optimum.

4.20 It was noted that operational costs are shared in a proportion of 50/50 under current BSUoS arrangements. Therefore generation and demand share equally the consequences of under-investment on the transmission system.

4.21 In practice, transmission network investments are lumpy, taking account of the asymmetric cost, and the most efficient option is generally to size the network slightly larger (i.e. if the network has to be larger or smaller, slightly larger is the lowest overall cost). A further aspect of 'lumpiness' is that where the TO is economically sizing the network or 'future proofing', this cost should be borne by all Users. This principle already exists in the charging methodologies (CUSC Section 14), reflected in arrangements such as how spare capacity is treated (charges are based on an optimally sized network, with any additional cost dealt with through the residual).

4.22 As noted earlier, the transmission network is underinvested on some major boundaries and enduring Connect and Manage is expected to exacerbate this issue. This can be seen in the information published in the National Grid Seven Year Statement[8]. For example, the transmission boundary between England and Scotland ('the B6') is currently under-invested in (i.e. non compliant):

Figure 8.B6 - Boundary Transfers and Capability
(Boundary B6: SPT - NGET)



4.23 Combining the impact of both the cost of under-investing and the forecast level of under-investment in the transmission network indicates that the best solution for the end consumer is generally to ensure the transmission network is in place as soon as possible.

4.24 One of the downsides of using this approach is that the models to derive costs are relatively complicated and require significant input data on the likely running of generation plant. The Workgroup noted that user commitment based on TEC could indicate that a generator may be

[7] http://www.nationalgrid.com/NR/rdonlyres/BC265EEB-7415-4C58-8C56-0CF580581B8C/47751/GSR009ofgemreportv1_2_.pdf
[8] http://www.nationalgrid.com/uk/Electricity/SYS/current/

available, but would not indicate 'how' the generator would use the transmission system. It is this latter effect that drives transmission investment under a cost/benefit assessment, the current main driver on wider boundaries. Security driven investments are identified through a deterministic process in the Security and Quality of Supply Standards[9] (SQSS). This is based on providing a minimum level of demand security, suggesting that even for demand security investments it is 'fair' that demand take at least a share in the security burden.

Option 2 – Only Generators Secure Attributable and Wider Works

4.25 Under this option a customer faces no risk of paying for transmission assets built for a connecting generator as the generator is providing security for both attributable and wider transmission works.

Customer Risk	Customer Reward	Generator Risk	Generator Reward
Increased development costs feeds into power prices	Do not pay for assets that are stranded/ underutilised	Cost of development very high	Will not be liable for stranded assets from other Generators
Reduces competition by maintaining barriers to entry		Slower rate of development	Work fixed around asset requirements
More constraint costs as Generator connects without finished works		Also pay for constraint costs	Incumbents will benefit from higher prices as barriers to entry high
Less likely to meet the renewables targets		Industry faces policy uncertainty from ongoing attempts to hit targets manifesting in a risk of missing those targets	
Less secure network as wider works often not done on time	May not care if compensated	Generators operations may be curtailed by wider works being late as have to compete when had firm access before	

UK Government Policy Objectives

4.26 The Workgroup noted that Ofgem has, since 2004, had an obligation to contribute towards sustainable development. This duty was given greater prominence in the Energy Act 2008, referring to future as well as existing customers. Connecting "cleaner" generators, even if not all renewables, will help Ofgem fulfil this duty.

4.27 In terms of the UK Government's stated objectives, the Workgroup noted DECC's transmission access impact assessment[10] leading to the introduction of the enduring Connect and Manage regime (in 2010): "reduced barriers to entry should lead to a more dynamic market, facilitating the achievement of the Government's renewable energy targets through advanced connection dates for renewable generation projects.

[9] http://www.nationalgrid.com/uk/Electricity/Codes/gbsqsscode/DocLibrary/
[10] http://www.decc.gov.uk/en/content/cms/consultations/mproving_gridi/mproving_gridi.aspx

This should lead to a net displacement of fossil fuel generation by renewable generation, and hence EU Emissions Trading Scheme allowance savings." Lower transmission connection liabilities would have a similar benefit as they reduce barriers to entry.

4.28 The Workgroup felt that, in deciding that socialising transmission constraint costs was appropriate (as part of its enduring Connect and Manage decision), DECC has already acknowledged that customers should carry some of the costs of helping to get to a new, lower carbon electricity industry. The Workgroup considered that the securitisation was unlikely to result in costs as high as those expected from constraints, as it is unlikely TOs would over-invest to such a huge extent as to have stranded assets all over the network. Furthermore, TOs can often reuse assets and new generators may connect some years later, both limiting the overall exposure of the other system Users.

4.29 DECC also indicated that enduring Connect and Manage, with socialised costs would improve security of supply. This is because the "shorter timeframes for network connection make it easier for investors to respond in a timely fashion to market signals regarding the need for new capacity, and help ensure that there is a sufficient margin in the electricity system to meet demand at all times." The Workgroup considered that this would also be true of lower connection liabilities as a result of sharing securitisation with end consumers. Indeed the Workgroup were concerned that increasing securitisation from the current level would increase the cost to end consumers.

4.30 DECC's enduring Connect and Manage impact assessment said: "The additional constraint costs over and above those in the 'do nothing' scenario have a net present value of approximately £633 million between 2009 – 2020, with an average cost per year of approximately £61.5 million. It is assumed that generators and suppliers will pass all of these costs on to electricity consumers and that electricity demand over the period is approximately 343 TWh per year. This would result in an average increase in electricity costs of approximately £0.2per MWh. Given that average domestic electricity use is approximately between three and four MWh per annum the impact of the policy is likely to increase bills by less than £1 per year to 2020."

4.31 Based on the lack of any evidence to date of stranded transmission assets (as mentioned above), as well as the view that if there is available capacity on the transmission system then Users are likely to build plant to use it, the cost (of stranded transmission assets) to the customer would, in the view of the majority of the Workgroup, be very low. The benefit in terms of reduced wholesale prices as a result of increased competition should be higher than this theoretical risk (of stranded transmission assets).

Share of Risk between Generation and Demand

4.32 The Proposer noted that the Original Proposal has a 50/50 sharing of wider investment risk between consumers and demand on the one hand and generation on the other, reflecting many of the benefits and practicalities discussed above. This was believed to be an appropriate sharing number as both generation and demand ultimately benefit from new TO assets on wider transmission boundaries. Generation benefits from the new transmission investment on export constrained boundaries since it enables participation in the wider energy market. Demand benefits from this greater competition through lower energy prices, though there may be short term constraint costs. Also on major boundaries 'spare' capacity would provide reduced operational costs for the transmission system.

4.33 For 'attributable' transmission works the Proposer suggested that there was a greater risk if a generation project terminated because end consumers were less likely to benefit from another generator using those works, and therefore generation should be exposed to the whole risk until they commission.

4.34 It was noted that there could be a read across from the GB gas transmission regime, although under the gas auction investment model a new gas transmission system connectee took on the liability for the full period on which it had requested capacity. Gas transmission investments were understood to be made on the basis of a 50% NPV test against auction revenues.

4.35 It was noted that whilst a 50/50 risk sharing factor suggested that the generation community faced 50% of the risks it was questioned whether this is how the revenue would be finally divided up, due to the 27/73 (generation/demand) split in TNUoS charges. In the event that a User terminated it would face the liabilities set out in its secured amount statement. The NETSO would immediately draw down on the secured amounts. The TO would then review the works to decide whether to proceed or stop. If the works are still 'required' (the TO requires them to return the boundary to compliance or the net benefit of continuing is deemed as efficient) the TO would proceed with completing the project and the works would enter the TO's Regulated Asset Base (RAB). Under a generic methodology the security paid by Users would be non refundable (as under IGUCM) and netted off total transmission charges. If the works were not required then the remaining amount; the non recoverable costs of the project (subject to an efficiency test) minus the security recovered; would be funded by remaining generators and demand through TNUoS (split 27:73 generation:demand).

4.36 For example, 4 GW of generation made up of 8 new and existing plant was behind a transmission system boundary, and that boundary had a TO CAPEX of £10M in the year in question. Taking the Proposal with a transmission asset reuse factor of 33% (i.e. 67% of assets require a liability, see issue h below) and assuming the investment was required to return the transmission system boundary to full compliance, then the generation community would face a liability of £3.35M (50%*£10M*67%). As this is evenly shared by generation behind the boundary, a 500MW generator giving no notice would face a cost of £419k (100% * 500MW / 4GW * £3.35M). This amount relates to the potential for the stranding of TO transmission assets. Assuming that the transmission investment is cancelled, the remaining liability of £6.28M (£6.7M - £419k) will be recovered through the residual amount in all users' TNUoS tariffs, which is currently split 27% generation and 73% demand. So generation will pick up 27% of £6.28M = £1.7M. So in total generation would have contributed £419k (from the generator cancelling) and £1.7M (from all other generation) = £2.1M. So generation contribution to the cost of the cancelled assets is 2.1 / 6.7 (Gen contribution / VAR) = 31% for wider works.

4.37 However, recognising that attributable works remain 100% liable to pre commissioning generation under the original proposal, this changes the overall sharing factor. Assuming only one of the 8 generators cancels, on average attributable works are approximately one third of TO CAPEX, and therefore generation will also pick up 100% of 1/3 * £10M * 1/8 * 67% (asset reuse) = £0.28M. So in total generation has paid £2.1M (wider) + £0.28M (attributable) = £2.4M. So of the total TO project VAR of £7.0M (67% of £10M (wider) plus 67% of 1/3rd of 1/8th of £10M (attributable)), the combined attributable and wider sharing is 2.4/7.0 = 34% for generation.

Assessment of Cost to Consumers

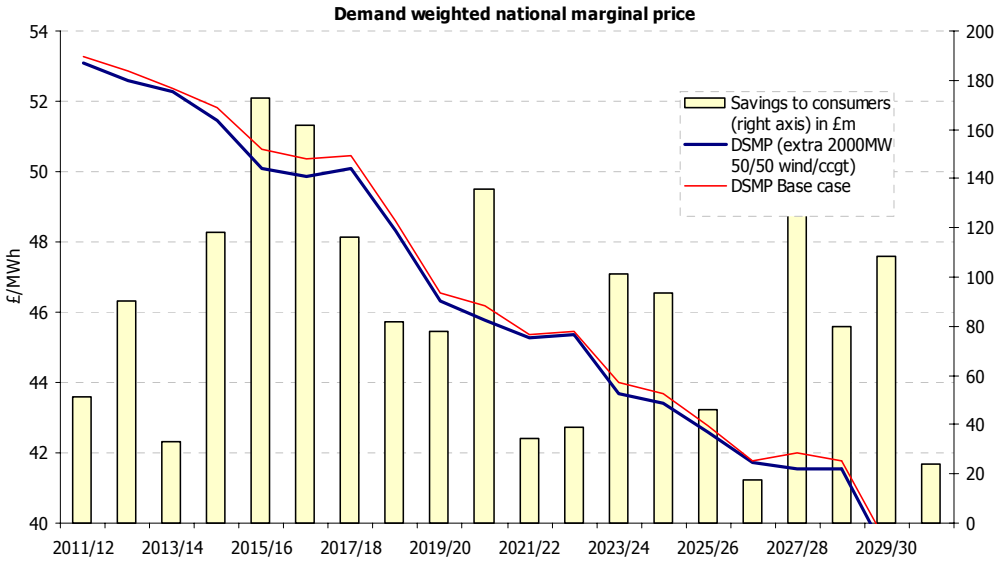
4.38 Taking the Proposer's view that consumers should share 50% of the risk of wider transmission investment, an assessment of the impact to consumers' bills can be undertaken.

4.39 National Grid has publicly stated that it is planning to invest, as a TO, around £2bn per year for the next five years. Of this £2bn, National Grid estimates that 85% is capital investment. Analysis shows that for most projects around two thirds of the TO expenditure will be on "wider works" with the other third on the attributable works. If it is assumed that the Scottish TO transmission investment works will amount to approximately £0.5bn per year (to reflect the increasing concentration of projects in Scotland relative to the current position), then the total liability on other Users can be calculated.

4.40 Taking 85% of the £2.5bn total TOs annual investment and assuming two thirds is spent on wider works gives an annual Value At Risk (VAR) in the region of £2.1bn. Assuming that 33% of that is expected to be spent on transmission assets that could be reused, the VAR is closer to £1.4bn, of which the CMP192 proposal is to hold customers liable for 50%, which equates to circa £700M. As so far there have never been any stranded transmission assets, it would be conservative to assume 5% of TO investment is actually likely to result in underutilised transmission assets, this gives an effective direct liability to all demand users in the region of £35M per year (£70M in total including generation Users).

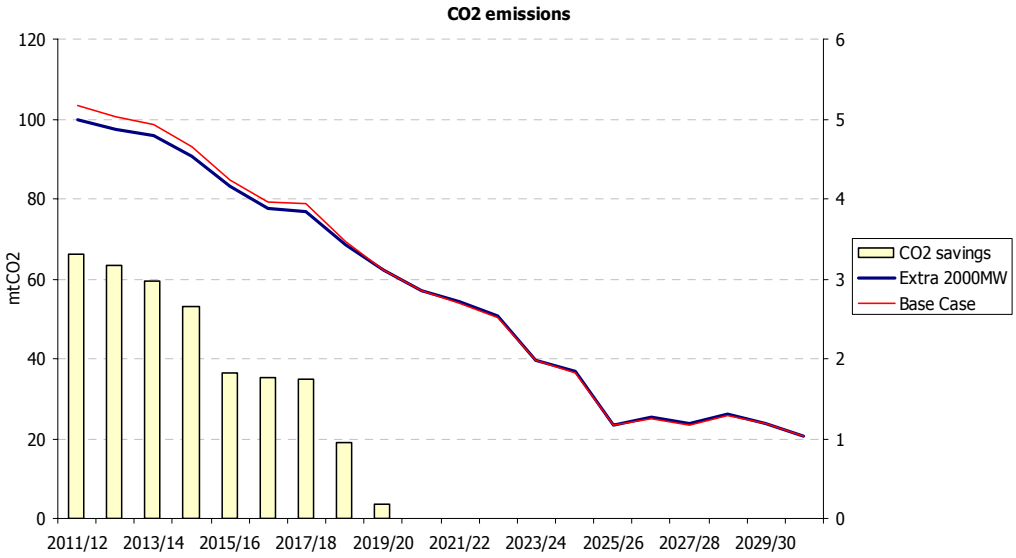
4.41 Using the assumption that the demand for power in GB is in the region of 343TWh (as per DECC Connect and Manage decision), this would result in a total liability in the region of £0.021/MWh. This assumes that all costs are ultimately passed through to end consumers (i.e. based on £85M annuitised). This is conservative as costs on pre-commissioning generation that cancel prior to commissioning are unlikely to be passed through to end consumers, and the actual annuitised rate under the current TO price control is 8.3% rather than 10%. This calculation arrives at a risk of less than 10p per year (based on the premise that customers use around 4MWhs per year). If it were to be assumed that stranding of transmission assets is becoming significantly more likely, say around 10% of assets at a value of nearer £140M per year, then the risk would increase but it would still be a risk, in monetary terms, of less than 20p per year for a domestic customer.

4.42 To compare this to the benefits of connection, the Proposer looked at the volume of generation plant likely to connect to the transmission system through to 2030, where the average increase in generation capacity is expected to be in the order of 2.3GW per annum (net of retirements). An additional 1GW of Wind and 1GW of base Thermal plant resulted in a reduction in the end consumer bills of £80M per annum, as shown in the graph below.



4.43 This shows that the addition of generation reduces the average market price from the base case. The saving shown is the cost of the wholesale price multiplied by the forecast demand. The data used in this model is that as published in the Electricity Scenario Illustrator model developed by National Grid for the RIIO-T1 price control[11].

4.44 This model also produces the carbon saving, this is shown in the graph below:



4.45 Based on a CO2e price of £26/tCOe this suggests an average saving over the period of approximately £80M per annum for the same scenario.

4.46 It should be noted that this analysis compares the full benefit against a conservative risk of stranding, whereas in the past there has been no stranding of transmission assets. More accurate analysis would compare the differences attributed directly to the change in policy; i.e. the potential increase in generation connecting as a result of CMP192 vs. a more accurate risk of stranding, although this data is not available and would be highly subjective. One of the main benefits of CMP192 is stated as being better informing TOs of likely generation positions and this should iteratively reduce the risk of transmission asset stranding occurring.

[11] The Electricity Scenario Illustrator can be found at http://www.talkingnetworkstx.com/electricity1.aspx

4.47 Industry feedback has highlighted that the user commitment security and liabilities acts as a blocker to investment in new generation plant. If CMP192 does not remove this barrier it is assumed that further industry change would be required to incentivise generation to be built to meet this hurdle to ensure UK Government targets (such as those for renewable and low carbon generation) are met. It is assumed that other incentives could have a larger impact on end consumer costs as they would be less directly targeted to the barrier to new generation investment.

The Period of User Commitment

The minimum notice period required to alter TO investment before significant costs are incurred (b); and the practical timeframe for generators to provide TOs with notice of their intentions (s)

Summary of Discussion

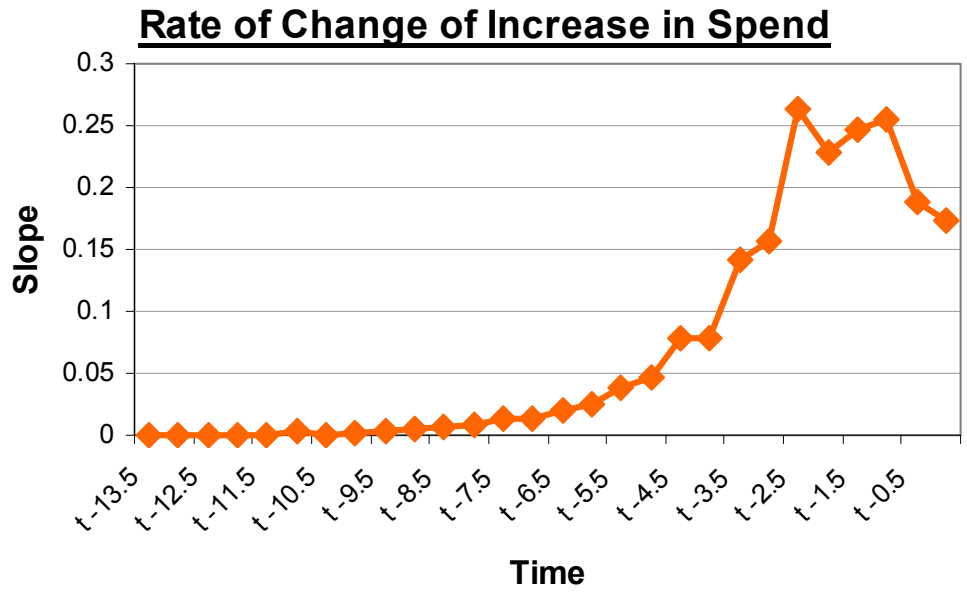
The User Commitment period for both pre-commissioning and post-commissioning generators is proposed to be symmetrical and set at 4 years. The Proposer believes that this ensures consistency of treatment for both pre and post commissioning generators in terms of User Commitment and reflects the generic lead time for wider works.

The Proposer considered that pre and post commissioning generation should have a liability within this four year period, as this was the average period during which the bulk of transmission investment occurred. The majority of the Workgroup considered that for post-commissioning Users this period was too long and that most generators were not in a position to provide information about their potential use of the transmission system more than two years in advance.

Regardless of the duration of the notice period, the Workgroup agreed that a transition period during which existing Users could close on the existing arrangements should be introduced.

Justification of Four Year Notice Period

4.48 The Workgroup considered the average of TO spend profiles. The Proposer believed that this would provide a basis for the maximum notice period that a TO would require to be able to react to avoid inefficient investment. The Proposer presented analysis of the rate of change of spend (see graph below) for TO investments over time. This suggested that a generic 4 year notice period would provide sufficient information to the TO such that unnecessary transmission investment could be avoided.



4.49 The Workgroup debated the rate of change of increase and it was agreed to investigate if there was a locational issue for transmission investment spend profiles. Having reviewed the available data the Proposer confirmed that there was not a significant difference based on location.

4.50 Another Workgroup member noted that as long as connection dates are secured by National Grid then there is not an issue, but National Grid has the capability to change the connection date and therefore there is no certainty (for the generator) over the date for their connection to the transmission system. It was suggested that if new generators take on more risk, then they should have a firmer connection date. The Proposer noted that the proportion of risk to new generation was significantly lower under this CMP192 proposal compared to the original Final Sums liability process and commensurate for wider works under IGUCM.

4.51 The Workgroup considered how the security could be covered off if the project was delayed. It was suggested that reverting to a central design authority similar to the CEGB could be a justification for removing wider works as it would control decision-making on strategic investments. It was noted by the Workgroup that this issue was not identified as part of CMP192 and whilst it is an important issue, it is not an element of the defect identified and considered further in this report.

Offshore Timescales

4.52 It was noted by the Workgroup that the tender process for offshore projects would tend to elongate this transmission investment spend profile. The Proposer indicated that the data provided in the graph above was based on historic onshore connection profiles. The Workgroup noted that a grid connection offer would be needed to trigger an early OFTO appointment, and therefore underwriting liabilities would need to occur before the transmission connection has had any design work, although it was noted that there would be more control for self-build. The liabilities required on signing an Offshore agreement prior to an OFTO being appointed are expected to be limited under the original proposal, however. Wider transmission works would not be specified, and at the OFTO appointment stage the commissioning date would be greater than 4 years out, and hence the main liability would be associated with the fixed fee element (£1/kW, £2/kW and £3/KW depending on the lead time), which mirrors the current IGUCM process.

Justification of Two Year Notice Period

4.53 It was noted that, due to various external factors beyond their control, post commissioning generators were not always in a practical position to provide information about their potential use of the transmission system four years in advance. This may, for example, be due to future market trends in energy prices, changes in UK Government and Ofgem policy (such as EMR and Project TransmiT) as well as changes arising from Europe (such as the emissions directives and the European Network Codes). In this regard it was noted that the market price for (i) electricity and (ii) carbon tend only to go two years into the future.

4.54 The Workgroup agreed that consideration needs to be given to what is practical from the post commissioning generators' perspective. The Workgroup discussed a 3 year notice period as opposed to 4 and it was felt by part of the Workgroup that 3 years would not be sufficient (from the point of view of notifying National Grid / the TOs), particularly in terms of major transmission projects. Other members of the Workgroup felt that given the limitations on the availability of market prices etc., that a notice

period, for post commissioning generators, of two years was the most practical.

4.55 It was noted that if there was a more flexible transmission access product not linked to transmission network investment then this could mitigate the consequences. The Proposer agreed with this view, however the Workgroup Chairman understood that development of such a product was not within scope of this CMP192 proposal.

4.56 The Proposer considered that, from the perspective of a TO, the 4 year notice period was a minimum period. A Workgroup member advised that there were circumstances where marginal post commissioning generator units cannot give 4 years notice to National Grid due to the short-term economics of the plant. One Workgroup member highlighted that there were other issues to take into account as to whether 4 years was appropriate, i.e. when giving National Grid notice of substantial changes to TEC, generators also have to notify, where applicable, the Stock Market and Power Station staff. One member suggested that a resolution to this issue may be for generators to give as much notice as possible and let Ofgem make the final decision. The Proposer indicated that the CMP192 Proposal sought to avoid regulatory intervention for every TEC reduction and provide generators and transmission companies with greater certainty as to the liabilities.

The Effect on Marginal Plant and Transitioning

4.57 The issue of LCPD opted-out plant and Magnox was highlighted and it was noted that they are excluded from the generation background in terms of what assumptions the National Grid planners make. A quote from the Seven Year Statement was circulated to the Workgroup which provided more information on this subject:

4.58 "The Transmission Contracted SYS Background incorporates all existing and proposed projects with a signed bilateral agreement and only includes the closure of existing plant if we have been informed by the generator. Consequently, the Magnox plants at Oldbury and Wylfa, where closure dates have been published by BNFL Magnox Electric, are shown as closing over the period. It has also been assumed that plant that has opted out of the LCPD obligation will not generate from 2016 onwards."

4.59 On the basis of this, the Workgroup felt it could not justify asking marginal generation plants which are likely to close for 4 years commitment. National Grid agreed that some generation plant is excluded from future decisions on transmission reinforcement based on information gained through other routes; e.g. European Policy implementation and expected nuclear extensions.

4.60 The Proposer suggested that the issue of generation plant retiring as described above could be dealt with through the transition for CMP192 implementation. The Workgroup noted that if generation were to give a firm termination date during the transition period, they should be able to remain on existing terms until the date they specified (subject to it being up to four years from implementation of the new arrangements). Changing the terms for this generation could lead to them closing earlier than planned with no net benefit for the TOs or end consumers. The Workgroup agreed it would be potentially discriminatory to limit this only to LCPD opt-out and Magnox generating plant, despite them having clear time restrictions, as other plant may have non transparent restrictions. It was therefore agreed by the Workgroup that there would be a one-off opportunity (in the autumn of 2012) for all generation to 'leave' (or reduce

TEC) up to a specified date (March 2016), and if they did then they would remain on the existing (baseline) arrangements.

The Profile of TO Investment Costs (c)

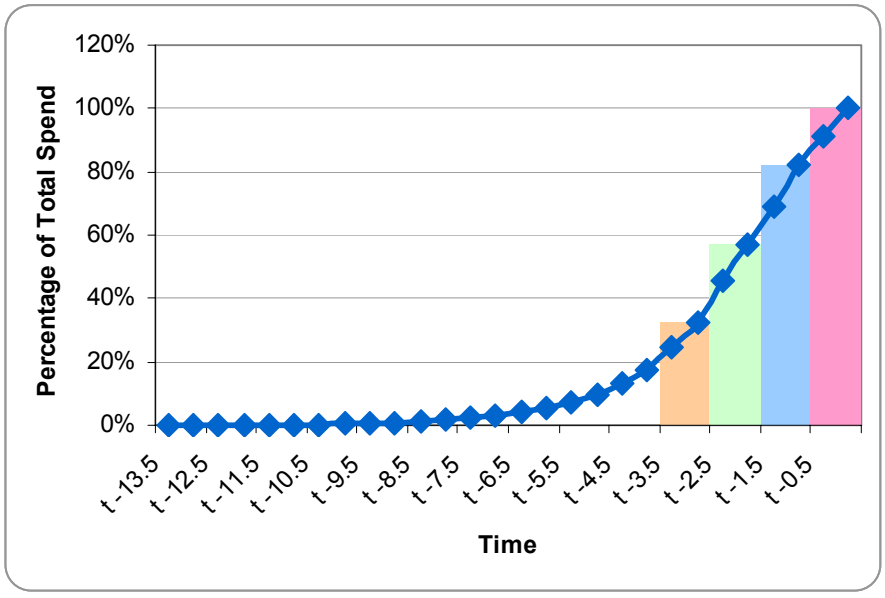
Summary of Discussion

The Proposer believed that within a four year notice period, generators' liabilities should have a stepped profile of 25%, 50%, 75%, 100% depending on the amount of notice given of TEC reduction. There was discussion on possible reconciliation post-reduction, the Proposer believed that in a generic methodology this was covered by the transmission asset reuse and compliance factors (issues g & h).

The Workgroup discussed the treatment of pre-commissioning generator slippage. Under IGUCM, liabilities are held at the current level if slippage is due to the generator, or reduced to a previous level if due to the TO, and the Proposer believed that this was appropriate for CMP192 also.

Justification of the Stepped Profile

4.61 The Proposer presented the average spend profile of TO transmission investment projects and confirmed that it approximated to the 25/50/75/100 stepped proportions adopted by the IGUCM. The Proposer believed that this illustrated that the more notice provided to the TOs by both pre and post commissioning Users, the lower the cost of changing TO investment plans. The chart below shows the generic profile of transmission investments costs based on historic TO investments.



4.62 The Proposer believed that this profile should be included as a 25/50/75/100 stepped profile within the original four year notice period for all Users. This would be used to calculate liabilities based on the notice given (by generators) prior to their planned commissioning date or prior to their termination taking effect (in both cases also applicable to TEC reductions).

4.63 For example, termination in the year of commissioning or closure in the year of notification (in both cases also TEC reductions) would result in a 100% liability for the Cancellation Amount (after taking account of compliance and transmission asset reuse factors, see issues g & h). As further examples, a pre-commissioning generator terminating between 3 and 4 years prior to commissioning would be subject to a liability of 25% of

their Cancellation Amount, and a post-commissioning generator providing 3 to 4 years notice would be subject to a liability of 25% of their Cancellation Amount.

4.64 The Proposer confirmed that the objective of the CMP192 Proposal is to incentivise efficient transmission investment by the TOs. A Workgroup member queried how the 100% generator liability in the first year was calculated and the Proposer advised that it was based on forecast Value At Risk (VAR) and therefore it would have to be estimated each year.

4.65 The Workgroup considered that the liability associated with the 4 years notice period provided by post commissioning generators would be treated as a sunk cost, or 'closure tax', for existing Power Stations; e.g. at any point in time generators would balance their liabilities with potential revenues with the latter strongly dependant on market structure and prices.

4.66 Another Workgroup member made the point that if a Power Station closed early and the transmission asset was re-used, then the party might want their money back. The Proposer advised that the CMP192 proposal took this factor into account by way of compliance and asset reuse, and that it was expected that the transmission assets would be reused in this type of situation. The Workgroup member noted that this assumed a generic transmission asset reuse rate; however, if the remaining transmission assets were reused (such as by another generator locating at or near their site) then the original generator might seek the repayment of an equivalent proportion of the 'closure tax' they had paid. The Proposer noted that under the proposed CMP192 methodology the original generator was benefiting from not being exposed to the overall potential loss and therefore it did not consider repayment to be appropriate (i.e. when the generator terminates the TO does not calculate the underutilised or stranded proportion and charge this to the original generator).

4.67 The Workgroup member believed that if a security had been paid on the basis that a transmission asset was not to be used and it was subsequently used, that it was only fair and appropriate that the original generator be compensated; otherwise there was a risk of 'double recovery' by the TO of its costs. The Proposer indicated that the TO would not double recover as any liabilities recovered under the proposal would net off the Price Control allowance. The Proposer also noted that liability was not the absolute Value At Risk, but rather the CapEx in the current year for attributable works for which the generator was given the choice of reconciliation. However, for the wider amount, reconciliation was not consistent with a generic methodology.

4.68 The Workgroup discussed the possibility of a rolling 3 year notice period and discussed the concept of a periodic TEC amnesty. One Workgroup member suggested that this was the remit of the SQSS and not User Commitment, in terms of what can be built and when. The Workgroup noted that there are regulatory aspects outside of the market that allow for National Grid to request more information from the generators and it was queried what this information consists of and how useful this is. One Workgroup member suggested that only Power Stations that are going to close for regulatory reasons are an issue.

The Treatment of Generator Slippage

4.69 The Workgroup considered the mechanics of pre commissioning generator project slippage and it was noted that this usually occurs during the consenting stage. The Proposer circulated information on how pre

commissioning generator project slippage is managed under IGUCM[12]. This showed that in the event that a User makes an application to slip their completion date, their Cancellation Amount is frozen at the current level and will rise again in accordance with a new profile until project completion. In the event that National Grid varies the transmission construction programme, the (generator) Cancellation Amount is not frozen but will be reduced to match the new profile. The Proposer believed that similar arrangements should be applicable to CMP192.

[12] http://www.nationalgrid.com/NR/rdonlyres/B719C93E-01EC-4CA8-BF52-D3C180C200D5/35852/InterimGenericUserCommitmentMethodologyStatementIs.pdf

The Likelihood of Power Stations either Cancelling or Closing (d)

Summary of Discussion

To reduce perceived barriers to new entry, the Proposer suggested requiring Users to hold a lower level of security against their liabilities. These lower levels would be based on a generic assessment of the likelihood of cancellation and closure. For pre-commissioning Users, the Proposer detailed a two-stage reduction based on whether a developer had achieved key consents. For post-commissioning User, the Proposer detailed a linear increase based on the lifetime of a plant compared with a generic baseline.

Whilst a more accurate probabilistic method of identifying generation closure was identified, the Workgroup considered that, in keeping with current CUSC arrangements, post-commissioning Users should not be required to put up security as they have physical assets and historically there have been no defaults on CUSC payments by post-commissioning Users.

A high-level assessment of the cost implications of introducing security suggested that there would be an additional cost to the industry of circa £18M/annum, based on securing one year of TNUoS.

Security Required for Liabilities

4.70 The Workgroup considered the Proposer's suggestion of requiring a lower level of security from a User than the liability they had to the TO. The Proposer believed that this could reduce perceived barriers to new entry.

4.71 One Workgroup member expressed a view, endorsed by others, that excessive pre-commissioning generator security acted as a barrier to entry for smaller parties and so has a negative impact on competition. This occurs because smaller parties generally do not have access to the levels of 'free credit' allowed under the CUSC. This increases their costs and in some case would force smaller parties to sell viable projects to larger existing CUSC parties who could manage their liabilities better under the CUSC.

4.72 The proposal for security requirements under CMP192 sought to minimise the security on pre-commissioning generators and consider if similar security should also be in place for post-commissioning generators. The Proposer suggested that the arrangements for post-commissioning Users could be based on expected Power Station life. In the case of pre-commissioning Power Stations, as developers progress their projects the security level required could take account of their commitment to their project. The Proposer noted that this was not planned to affect the liability, but only the security posted by the User.

4.73 A number of Workgroup members queried the logic of requiring a liability higher than security, as they believed the issue would better be dealt with by having a lower liability. The Proposer explained that the CMP192 proposal sought to reduce the burden of security on pre-commissioning generators whilst protecting other Users for the risk of stranded transmission assets. The Proposer understood that a firmer generation project would be able to manage a liability as a project risk (i.e. if the project commissions as planned the liability is not realised). This

approach, in the view of the Proposer, provided the correct incentive whilst balancing the risk for other Users.

4.74 The Workgroup noted that this did create the issue that if a pre-commissioning generator defaults, then there would be a liability for National Grid as NETSO to recover over and above the security drawn down. National Grid clarified that in the event of termination it would draw on the security and seek to recover remaining liabilities; where these liabilities could not be recovered it expected that costs efficiently incurred under the agreed CUSC user commitment process would be funded under the regulatory regime.

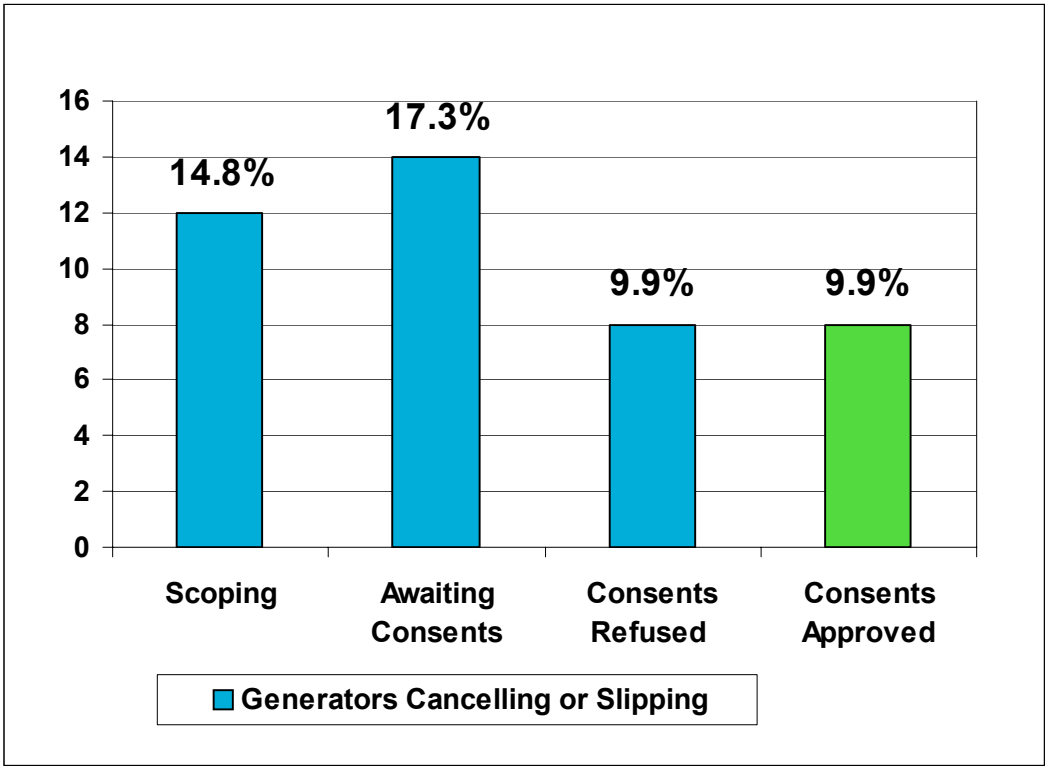
4.75 A Workgroup member noted that the issue was more to do with liability than security, as liability is on the balance sheet and is therefore more important than security; i.e. the liability that generators have to the TOs through National Grid ties up capital that could be used for other generation projects. Publicly available guidance on liabilities was circulated that set out general practice with regard to showing liabilities on company balance sheets[13]. This suggested that future liabilities cannot generally be shown on a balance sheet, however it was recognised that different companies will treat potential liabilities for terminating or closure slightly differently, depending on their general structure and / or accounting standards. Following further discussion, the majority of the Workgroup agreed that liability did not appear on a balance sheet. However, the Workgroup understood that it could affect a company's credit risk, and that would have implications for their balance sheet. This is discussed in more detail below.

4.76 The Workgroup generally felt that the issue that needed to be addressed urgently, consistent with the outline of Project TransmiT, was solely that of pre-commissioning generation securities. The Proposer agreed this was a major factor although it understood that consistent treatment of liabilities (against which the securities are held) between pre and post commissioning generators needed to be addressed considering the aforementioned concerns regarding potential discrimination.

Security from Pre-Commissioning Users

4.77 The Proposer presented analysis (updated during the Workgroup) suggesting that, following a User receiving their key consents, there was a very low likelihood of the project terminating. The graph below shows that prior to the key consents there is a 42% risk of a generator project cancelling their connection agreement with National Grid. However, after these key consents are in place this risk drops to 10%. It should be noted that the overall liability does not change, but rather the risk of that liability being realised.

[13] [13] http://www.iasplus.com/standard/ias37.htm



4.78 The Proposer assumed that User key consents and financial close were largely synonymous, with consents being the key condition in financial close. Key consents were used rather than financial close as a milestone as it is considered more demonstrable, open and transparent (to the TOs, National Grid, all Users and Ofgem) when these key consents have been granted by a public authority.

4.79 Following discussion, the Proposer confirmed that it interpreted 'consents' as per the existing CUSC definition and so covered all key consents required for the generation project, including the consents for directly associated attributable transmission works to receive connection (enabling works). It was noted that, particularly for attributable transmission works where the risk of stranded assets were perceived as larger, there would generally be no transmission works started until all the related (Power Station and transmission) consents had been granted / awarded. Therefore whilst the security was higher, the liability would generally be less. Whilst security was currently posted at six monthly intervals in accordance with the CUSC timescales, the Proposer confirmed that under these CMP192 arrangements it envisaged security could be reviewed at any time once evidence of key consents was presented by the pre-commissioning User to the TO.

4.80 There was some debate on the point concerning legal costs and the likelihood of National Grid (as NETSO) being able to recover (from the pre commissioning generator) the remainder of the liabilities not secured by the posted security. National Grid indicated as it was carrying out actions agreed under CUSC process it would expect these to be considered as efficiently incurred. Given the views expressed that the actual risk was low this would be dealt with Ofgem on a case by case basis should it occur.

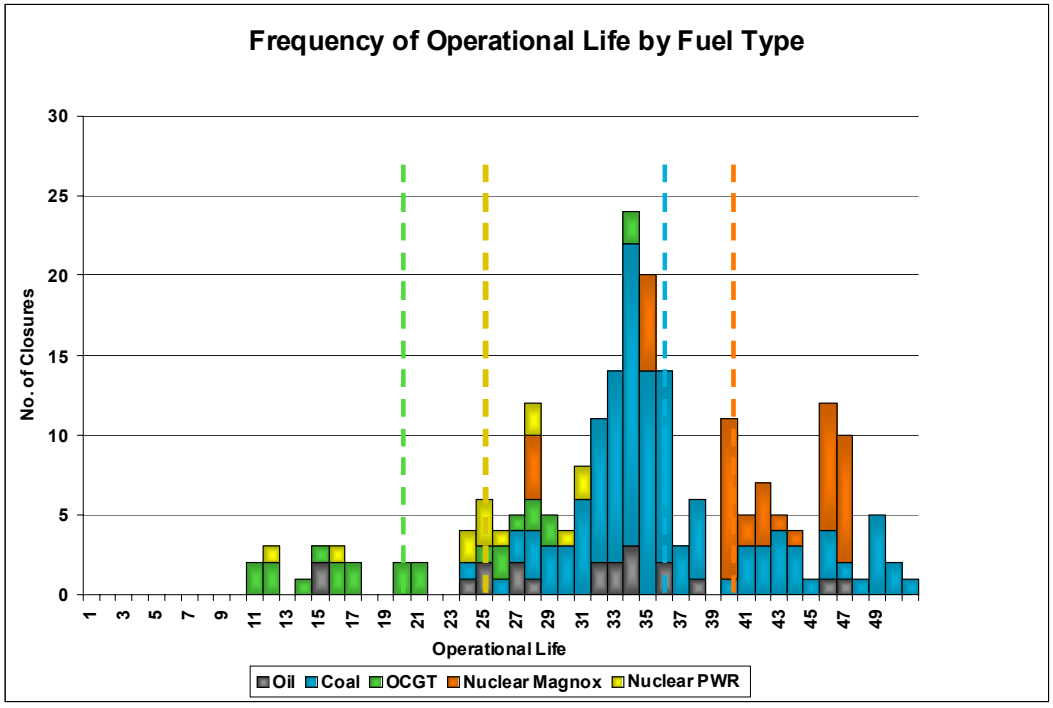
4.81 It was noted that security requirements for liabilities are already set out within the CUSC, but it was suggested that this is causing a barrier for some projects. One member believed that the proposed generic approach to reducing security results in the same reduction for a new company developing a challenging site as an experienced developer who has successfully developed sites. Although both developers have the same liability, the experienced developer is likely to be better able to meet its liabilities as they fall due, and has a record of doing this. Therefore the

member believed that the experienced developer should face a lower security requirement.

4.82 The Workgroup considered whether to base the security reduction factor on the "MW under development" as a % of the "TEC MW + MW under development" at a parent company level. Thus a developer developing a 10 MW plant with an existing successful development of 10 MW would be required to provide a security of 50% of the liability required, with this 50% subject to the existing CUSC security terms, with an allowance for the payment record of paying TNUoS, etc. This approach would consider the reduction factor at a company level rather than a generic level. It was felt by some of the Workgroup that this approach could be seen as discriminatory as it would be more economical for existing developers than new entrants, and it was highlighted that the identified defect is regarding existing and new parties, and not to do with the size of the generator.

Security from Post-Commissioning Users

4.83 The Proposer's suggested approach to security for post-commissioning Power Stations was to establish an expected Power Station life and base the security requirements on the likelihood of closure; i.e. as a Power Station nears the end of its expected life, additional security would be required. The Proposer presented analysis on the expected life of Power Stations in the GB market (updated during the Workgroup process to include worldwide figures of nuclear PWR closure):



4.84 The Proposer's suggested that security could be increased linearly from 0% at historic commissioning to 100% at the point of expected Power Station closure, and then remain at this until the Power Station closed. This data was compared with a table of investment lifetimes taken from an analysis by Redpoint consultants:

Years	Investment lifetimes
CCGT	20
Coal (ASC)	25
Coal (IGCC)	25
Coal (ASC) + CCS	25
Coal (ASC) + CCS	25
Nuclear (PWR)	40
Onshore wind	20
Offshore wind	20
Biomass	20
CHP	20
Marine	25
OCGT	20

[14]

4.85 The Proposer advised the Workgroup that CMP192 recognises the difficulty of forecasting the life of a Power Station and this was the reason that the Proposal was based on avoided transmission investment rather than requiring indemnification over the lifetime of a Power Station.

4.86 The Workgroup considered this further and some members queried the 4 year limit that had been proposed based on transmission investment data (see issue b). National Grid advised that greater than 4 years would effectively be indemnification of transmission assets, with 8 years being 50%, assuming that VAR is based on TNUoS. The Workgroup considered the implications of using TNUoS, as had been discussed in CAP131. The Proposer advised that using TNUoS could lead to over-securitisation, and this is why it was not explicitly suggested for CMP192.

4.87 Following further discussion a Workgroup member presented an alternative generic closure probability methodology that they believed could better represent the expected life of a typical Power Station in GB.

Generic Closure Probability for a Post-Commissioning Power Station

4.88 Stations fall into two main classes, those with low variable cost and those with high variable cost. The suggested methodology to determine the expected life of a Power Station deals with these classes differently.

Low variable cost

4.89 Closure and replacement decisions in this group are driven mainly by plant condition and the regulatory environment in many cases plant would be replaced or refurbished on the same site. For this class of plant the probability of "un-forecast" closure would be low.

4.90 The table below shows how each class of renewable and (hydro) pump storage low variable cost plant could be dealt with for the purposes of CMP192.

Type	Methodology	Note/detail
Hydro	Enduring	1% per year driven by catastrophic failure
Wind	Enduring	[2%] per year driven by catastrophic failure
Tidal	Enduring	[2%] per year driven by catastrophic failure
Pumped Storage	Enduring	[2%] per year driven by catastrophic failure

4.91 The numbers in the table were initial estimates and following further discussion the figure for hydro plant was determined as 1% (or less) rather than 2% based on the fact that the life of hydro plants was expected to be

[14] Source: Redpoint "Dynamics of GB Electricity Generation Investment" 2007

greater than 100 years (there being a number of hydro plant in GB that is older than 100 years).

4.92 The nature of low variable cost Power Stations means that there are significant additional considerations which must be made in reviewing their potential closure dates. While, like any other Power Stations, commercial criteria are a factor there will be important technical and safety aspects of their operational and decommissioning lifecycle which must be addressed in reviewing their closure. Consequently any decision on Power Station life extensions will also be subject to commercial parameters. Taking this into account, the Workgroup agreed that the life expectancy for nuclear plant in GB was as set out in the table below.

Magnox	Life expectancy as detailed by initial design	Extensions [10%] potentially + 5 years beyond existing declarations.
AGR	Life expectancy as detailed by initial design	Extensions [10%] probably + 20 years beyond initial design.
PWR	Life expectancy as detailed by initial design	Extensions [10%] probably +30 beyond initial design.

High/carbon linked variable cost

4.93 For this type of Power Station closure decisions are more complex and include five key variables, (i) planned life, (ii) emissions legislation, (iii) relative fuel cost including tax, (iv) relative efficiency and (v) location.

	Coal	Gas
Relative fuel cost	Moves towards marginal over time	Lower than coal in long term
Planned life	[40] years	[30] years
Emission legislation	Compliant with LCPD, selective catalytic reduction can run on otherwise restricted hrs running	Selective catalytic reduction compatibly required to run on
Relative efficiency	All similar (34-36%) lower for FGD plant	50% 1990, 60 % 2015 0.25% gain per year
Location cost	TNUoS cost	TNUoS cost / MWh

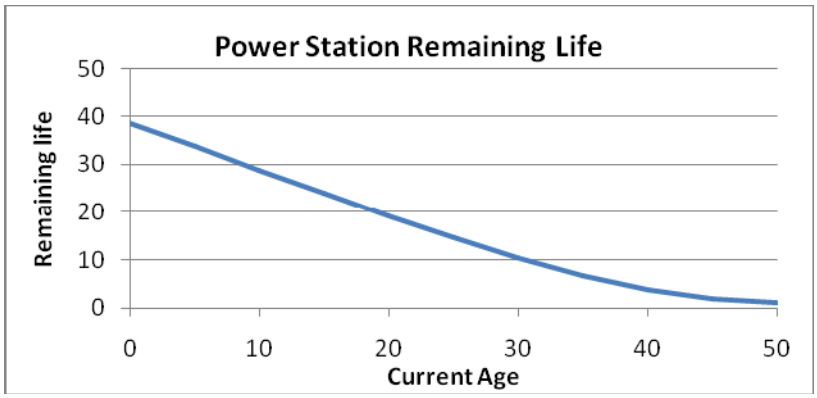
4.94 Using the above inputs the following methodology could be adopted.

- Establish a fuel cost forward curve for next 5 years based on market forward prices
- Using fuel forward curve stack generation by efficacy, use generic efficiency of 36% for coal and 50% + 0.25% a year for gas plant, or ask generators for generic efficiency
- Add TNUoS cost £/MWh based on historic load factors
- Arrive at a dispatch merit order; order of closure should match this.
- Exclude plant that is needed for [120%] of peak capacity unless it is 125% of forecast life.

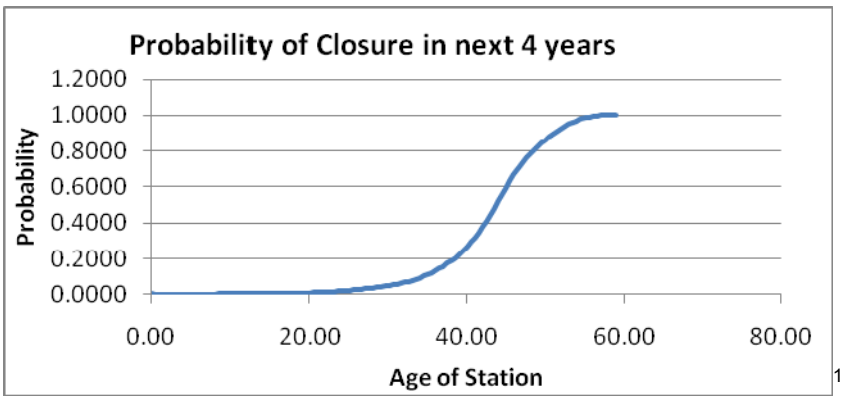
4.95 For all remaining Power Station plant above 120%, a capacity deterministic rule would be used to arrive at an annual closure factor. This takes account of merit order position and life expectancy of plant that has low efficiency and is old. Such plant has a greater chance of closing, but efficient old plant still has a reasonable probability of being around next year.

For plant above 120% of peak demand (more granularity could be included)	
Plant life	% to use
< 75 % forecast life	[2%] per year driven by catastrophic failure no fuel linkage
75% to 100% life	Plant in top [20%] of merit order could close [20%] factor
100% to 125% life	Plant in top [40%] of merit order could close [40%] factor
Plant over 125 % life	50% closure factor

4.96 A simple alternative for high marginal cost plant would be to use an "exponential distribution" based on life expectancy (Male 2007 tables scaled 2:1). This distribution shows similar characteristics to Power Station life being relatively stable but with a long tail (see graph below). This effectively indicates that even though a Power Station is old it can still continue to operate but at some time it will close. The two charts illustrate the methodology. This could be applied for all high merit order thermal plant.



4.97 Using this data the probability of closing over the next 4 years can be determined.



[15]

4.98 The Workgroup agreed that the 's' curve could be used rather than using simple linear extrapolation. The Workgroup considered that the SQSS methodology is the correct method and it was noted that a post-commissioning generator would not be able to provide a closure date, as they would not know when they would be closing so therefore it would be based on an arbitrary set of assumptions.

4.99 One member of the Workgroup felt that it is difficult to manage closure using this model alone and that the CMP192 proposal creates liability that is essentially arbitrary. Another Workgroup member noted that Ofgem needs to consider if the information that TOs have got is sufficient, so that they are able to make the best transmission investment decisions.

4.100 It was noted that there is an obligation on the generator to inform the NETSO what their forward output is under the Grid Code, which could obviate the need for security. National Grid reviewed the Grid Code submissions for Power Stations closing over the past 10 years and this indicated that, whilst within year information (outages) was reasonably accurate, the level of expected output did not forecast closure other than for nuclear units.

4.101 It was suggested that there could be a licence obligation on generators regarding notifying the NETSO of closure (or TEC reduction) with strict disclosure provisions such that the information could only be used for the

[15]Based on data from [15]Based on data from http://www.ssa.gov/oact/STATS/table4c6.html

purpose for which it was given to facilitate the design of the system in the SQSS environment. This in turn could give better information to help the TO(s) design the transmission system and avoid stranded transmission assets than a multi year TEC commitment. The Proposer questioned whether such an approach was significantly different from the current (baseline) CUSC arrangements, and that CMP192 envisaged a financially firm approach which would improve the quality of information provided by generators to the TOs.

4.102 One Workgroup member advised that the CUSC already provides security cover for liabilities, and that the current CUSC does not have a requirement to provide security for post commissioning generators' liabilities for TNUoS or the Cancellation Charge. Evidence from past closures of post commissioning generators indicated that no existing generator had defaulted on liabilities under the CUSC. Therefore the default on CUSC liabilities for post commissioning generators was not perceived to be an issue.

4.103 As CMP192 did not significantly change the level of liability (although it was applied for a longer period), it was felt by the majority of Workgroup members that the original CMP192 proposal should also not require post commissioning Power Stations to post security, as this would remove issues around the requirement to forecast generation closures.

Difference in Treatment between Pre- and Post-Commissioning Generation

4.104 The difference in treatment of securities between pre- and post-commissioning generators was discussed, and the Workgroup recognised that pre- and post-commissioning generators are clearly different. In terms of key dates, pre-commissioning and post-commissioning Users are very different as pre-commissioning Power Stations have a clear contractual date of connection, whereas post-commissioning generation have a future option to close or reduce their TEC depending on market conditions and regulatory changes.

4.105 The majority of the Workgroup agreed that post-commissioning generators, by the virtue of the fact that they have invested in generation assets and are paying TNUoS could be treated differently to pre-commissioning generation. As an illustration, a 100MW existing unit in Scotland would be subject to ongoing charges of greater than £1M per annum, whereas a pre-commissioning generator in the same location is only exposed to this cost when it commissions.

4.106 This approach is consistent with the different treatment for physical (generators) and non physical (suppliers) in the CUSC. In this context early stage pre-commissioning generators were largely considered as non physical. Once pre-commissioning generators gained consents they would be regarded as firmer and then progress to a much lower level of security.

4.107 Whilst these differences were accepted, some members of the Workgroup did not believe that these justified any difference in treatment with respect to User Commitment. The Proposer highlighted the difference in treatment of a supplier under the existing CUSC credit arrangements, and noted that these were based on perceived risk in the event of default. It also noted that suppliers and generators are inherently treated differently in respect of securities for charges in the CUSC, again based on the perceived risk associated with non-physical parties.

4.108 The Proposer highlighted that the idea of security under CMP192 was not to aid the transition of Users from non-physical to physical, where security

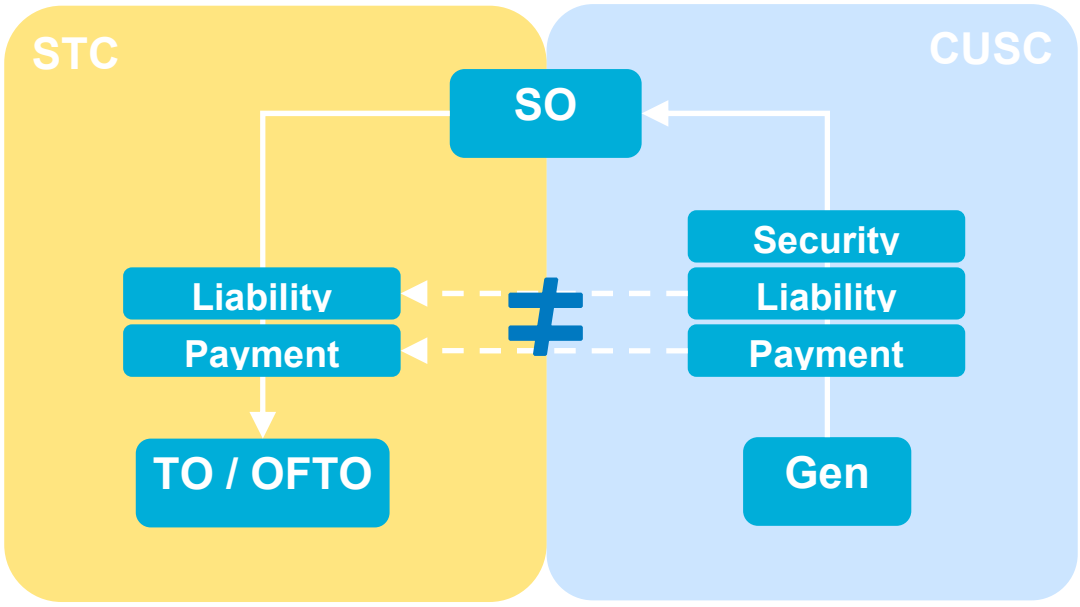
is no longer required, but to protect other CUSC Parties in the event of a default.

Security Arrangements between TOs and the NETSO

4.109 It was questioned whether National Grid received security from other TOs and if security provided by generators and TOs appeared on National Grid's balance sheet. National Grid confirmed that any securities which are posted by Users under the CUSC are through an escrow account and therefore are not 'held' by National Grid and do not show up on National Grid's balance sheet. Should a User terminate, National Grid (as NETSO) would draw on the security that User had posted with National Grid and pass this on to the affected TO(s) in accordance with the requirements in the STC.

4.110 In the case of National Grid as a regulated entity (TO and NETSO), the liabilities are tied up in the overall regulatory settlement and so impacts on the company's credit risk assessment (which is influenced by, and influences, the regulatory settlement) as per other Users. So the possibility of future disallowed transmission investment (stranding, uneconomic investment) is an assessment by investors of the inherent regulatory risk and the way the company is run to manage these potential liabilities or risk.

4.111 National Grid confirmed that no NETSO to TO security arrangements exist between it and the other onshore and offshore TOs. The diagram below was presented to the Workgroup to describe the current arrangements under the STC and CUSC respectively:



Implication of Security and Liability on Generators

4.112 A member of the Workgroup provided an overview of the implication of additional pre- and post-commissioning generator security requirements, as proposed with CMP192. This identified the possible cost to the industry as understood by the Workgroup, and is described below.

Security Amount

4.113 If a generator should be required to post security in relation to any pre- or post-commissioning generation requirement, the type and amount of the security will depend on various factors. In terms of the existing CUSC

arrangements, National Grid as NETSO currently provides allowances which are deductible from the amount of any security required from generators.

4.114 The maximum unsecured allowance is set at 2% of NGET's RAV for a AAA/AA rated entity and is scaled down on a percentage basis utilising one of the 3 following methodologies:

(i) An S&P Credit Rating of between BB- and AAA.
(ii) An Independent Credit Assessment grade (0-10 where 0 is the lowest rating)
(iii) A User's Payment record.

4.115 The unsecured amount is allocated on a sliding scale and there is overlap between methodologies (i) & (ii), e.g. an entity with a BB- rating or an Independent Credit Assessment grade of 5 qualifies for the same unsecured allowance. The payment record allowance (£0-£2M) is set below the minimum allowance available under the Independent Credit Assessment methodology.

4.116 An example using 2006 figures was provided to illustrate this point. The table below uses 2006 RAV of £5.1bn.

Maximum credit limit = 2% RAV (~£102m for NGET)

Credit rating	Credit assessment score	Years of perfect payment history	Credit allowance as % of maximum credit limit	Approximate credit allowance
AAA/AA	n/a	n/a	100	£102.0m
A			40	£40.8m
BBB+	10		20	£20.4m
BBB	9		19	£19.4m
BBB-	8		18	£18.4m
BB+	7		17	£17.3m
BB	6		16	£16.3m
BB-	5		15	£15.3m
<BB-	4		13.33	£13.6m
	3		10	£10.2m
	2		6.67	£6.8m
	1		3.33	£3.4m
	n/a	5	2	£2.0m
		4	1.6	£1.6m
		3	1.2	£1.2m
		2	0.8	£0.8m
		1	0.4	£0.4m
	0	0	0	£0.0m

Security Type

4.117 In the event that it is necessary to post credit support for pre- and/or post-commissioning liabilities then entities which are directly rated AAA to BB- in their own right would attract the credit allowance as referenced in the table above for all security requirements. Liabilities to be secured above the allowance or for entities not rated AAA to BB- would need to be secured by other acceptable methods.

(i) A Qualifying Guarantee, QG, from an entity with a credit rating of BB- or above. The guarantee is likely to be from a parent/holding company. The total of the guarantor's own liability use and/or Qualifying guarantee provision (to one or more Parties) in aggregate, cannot exceed its own unsecured allowance.

(ii) A Letter of Credit, LoC, from a Bank with a credit rating of A- or greater.

(iii) Cash deposited on an Escrow Account.

4.118 Other methods provided for in the CUSC are Bi-Lateral Insurance Policy, Performance Bonds and Independent Security Arrangement, which are not described in detail here.

Security Costs

4.119 If the allowance exceeds the amount of credit support requirement then there is no credit support required.

4.120 Qualifying Guarantees do not attract direct costs (although there may be an internal Group transfer charge) but will likely be recorded as a contingent liability in the provider's Annual Report/Accounts and possibly noted in the Beneficiary's Annual Report/Accounts.

4.121 Letters of Credit will generally be provided as a separate facility or within a multi option facility by a bank and will likely attract a facility arrangement fee (circa 0.5%), an utilisation fee (circa 1.5-2%) and /or a non utilisation fee (circa 0.75%). The costs will obviously vary from entity to entity depending upon the bank's view of the risk/reward ratio for each entity/proposal and in the current economic/financial climate the cost of credit has increased and availability /duration of facilities has reduced in recent time.

4.122 Cash costs translate into increased borrowing costs if cash collateral increases borrowing (Base Rate plus margin (circa 4%)) and/or lost interest income if the cash is made available from liquid funds (deposit rate).

Indirect Costs and Implications

4.123 Increased borrowing and or the arrangement of credit facilities through a bank to satisfy credit support requirements will impact upon the entities Balance Sheet and total available facilities. Depending upon the entities overall size and credit status, this may restrict or utilise available credit support facilities which may also be required for other purposes such as funding, working capital and to support other activities such as trading.

4.124 Provision of credit support facilities to entities by banks commands both a cost and depending upon entity size/creditworthiness will also likely require the provision of security to the bank which will again involve cost and restrict availability of assets for other uses.

4.125 In certain circumstances, due to the size and credit worthiness of the entity the bank requires additional security to provide credit support facilities to the entity. Some entities may need to approach outside parties to assist with this which is likely to involve some cost and in the case of equity injection a dilution of the owners holding, this could have relatively high effective cost of (equity return rates 10%-20%) equivalent to the return expected on equity.

4.126 If credit were to be required for post-commissioning generators' TNUoS it is probable that some existing companies may need to re-finance or re-organise lending facilities to be able to provide the additional security as the existing financing of the companies would not plan for this eventuality. In extreme cases the entity may be unable to raise the credit support and would need to consider a sale of assets/ equity injection.

Other Considerations

4.127 Historically in the GB electricity sector, companies that suffer financial difficulty (or liquidation) have sought to sell the Power Station assets as a going concern and therefore continue to pay TNUoS during the sale process. Despite there having been several (GB) examples of forced sales of Power Stations, TNUoS has always been paid pending sale. Once the sale was complete the TNUoS continued to be paid.

4.128 Finished projects (those nearing completion) could be seen as less likely to default/more creditworthy with more likelihood of pre- and post-commissioning charges being covered by prospective buyers.

4.129 Security for TNUoS adds an effective cost of around 4.5% (see table below) to generators TNUoS bills to cover a risk that is unlikely to occur. The Workgroup believed that a split Kt factor that ensure shortfalls in generation TNUoS recovered from the generation community would be a far cheaper alternative.

Typical Cost

4.130 To gain a better insight into the possible implications of a change to security requirements for post-commissioning generators, an estimate of the cost of providing security of one year's generation TNUoS has been developed. The cost is based on simplified assumption and is presented for illustration only. Whilst it is recognised that the original Proposal is not based on TNUoS, the size and geographical split of the requirements are likely to be similar, thus TNUoS is an appropriate surrogate for the actual proposals. The key assumptions are:-

- Security for the largest 6 companies based on LoC, (at 2.5%) as even for the largest companies the £40M allowance for A- rated companies is either exceeded by TNUoS cost plus development projects or the ultimate parent is not likely to forth coming with a Parental Company Guarantee, PCG.
- Some projects allocated to the six largest companies are joint venture projects and require a higher cost of security.
- For the next six companies the cost is based on LoC/Capital at a higher rate (of 2.5% for LoC and 10% for capital based on a 50-50 split, effective rate 6.25 %) the combined rate includes the cost of additional security cost that the bank may require or some additional refinancing costs.
- For smaller companies the cost is based on an equity injection cost at 15%.
- The cost to the companies is based on the Net Present Value, NPV, over 30 years at 6% this is the effective combined annual cost to the industry of providing long term security for TNUoS.
- Only included wider and attributable onshore connections
- For shared ownership judgement has been used to allocate capacity
- Negative zone TNUoS has been set to zero.

	Security	Effective rate	GW	TNUoS* (£M)	Cost of Security (£M)
Six Biggest Companies	LoC	2.50%	63.4	294.16	7.35
Next six companies	LoC/ Capital	6.25%	15.0	74.07	4.63
Smaller companies	Capital	15.00%	6.5	41.70	6.25
Total / year			**84.9**	**409.92**	**18.24** (4.5%)
NPV 6% 30 years					£251.04

* wider plus attributable, onshore only positive TNUoS

How the Value at Risk (VAR) is Identified from TO Investment Costs (e)

Summary of Discussion

The Proposer considered that the VAR for local works should be specific to the CapEx of the works, similar to the Final Sums process, but fixed four years prior to commissioning. The Proposer detailed two methodologies for apportioning wider VAR from TO CapEx, one using a scaled ICRP process and one using boundary capabilities. The majority of the Workgroup preferred the latter process, as it was more cost-reflective and transparent.

Establishing the VAR for Attributable Works

4.131 The Proposer suggested that it should be relatively straightforward to link attributable TO investment costs to individual generators in a direct way, once a decision as to which investments constituted attributable and which wider (see issue j).

4.132 The Proposer considered that the user commitment for attributable works on the transmission system should be based on a cost reflective approach, similar to the current Final Sums arrangements. This attributable Value at Risk (VAR) would be subject to the compliance and asset reuse scaling factors (issues g & h) and would be fixed from the generic 4-year lead time. The liabilities would not be subject to reconciliation.

4.133 A member of the Workgroup raised the issue of cost forecast errors by the TOs, and how these would affect the VAR for attributable works. The Proposer stated that the original proposal was to set the attributable VAR for the four year period to aid transparency and stability of liabilities, with the forecast of attributable VAR only being changed in the event of slippage of the commissioning date. This was further explored under Section 6 (Alternatives).

4.134 The use of cost-reflective final sums for attributable works was debated at length at the Workgroup. In particular, the potential use of a scaling factor and the extent to which the cost reflective final sums were reconcilable were considered. It was concluded that in the case of CMP192 it was reasonable that the final sums were not subject to reconciliation since these were capped at the time of the offer.

Establishing the VAR for Wider Works

4.135 For wider works a specific approach is far more complicated due to the meshed nature of the network and the interaction between generators. The Proposer's preferred approach for wider VAR was a simple and transparent generic calculation. The Workgroup agreed the process should be simple and transparent, although it had some concerns about the potential volatility, transparency and controllability of the more specific attributable allocation.

4.136 It was highlighted by the Workgroup that a generic methodology should be investigated as it smoothes out costs for specific transmission projects and is also more transparent and predictable. Further discussion suggested that the level of volatility and predictably are dependant on the inputs to the methodology to apportion the TO costs. For example, if the forecast capital plan (that is the level of transmission capital expenditure, or CAPEX, by TOs) was an element in a generic methodology then this itself

could be volatile, although possibly predictably, given the regulatory five (moving to eight) year transmission Price Control review.

4.137 In the case of a generic methodology the Workgroup also discussed the method of converting global TO investment costs to individual transmission zones. It was noted that zones are already used in the TNUoS charging methodology to smooth out nodal signals. Some members of the Workgroup were also concerned about the application to negative (TNUoS) zones. One Workgroup member advised that there is a need to be mindful of zones which switch between positive and negative in the 4 year notice period.

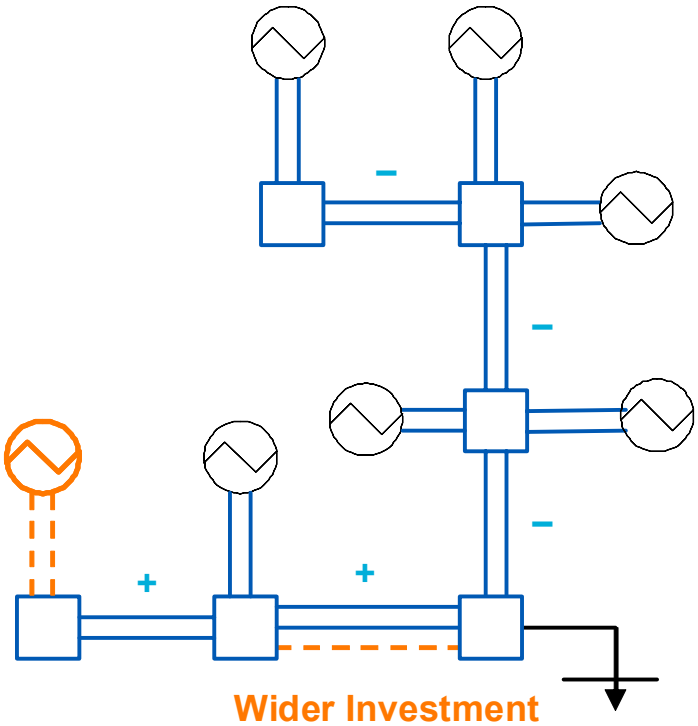
4.138 The Proposer presented two options for a generic solution for apportioning the investment cost of wider works on the transmission system, one based on using an ICRP (Investment Cost Related Pricing) tool and one based on direct mapping of TO costs to transmission boundaries.

Generic Methodology based on ICRP

4.139 The Workgroup discussed a generic ICRP model to identify the wider VAR on a zonal basis although it was noted that there were other possible models, such as by route or circuit or geographical TO capital spend. The ICRP model had the benefit of being based on an understood principle used for calculating TNUoS.

4.140 An ICRP methodology analyses the additional transmission infrastructure required to support the addition of 1MW of generation at every node on the system (the incremental investment), and then uses these nodal costs to derive zonal transmission costs.

4.141 The Proposer explained that an ICRP model created positive or negative costs for the incremental investment that would be needed on each circuit to accommodate the addition of 1MW. For the purposes of calculating the wider VAR however, the Proposer noted that negative circuit figures should be excluded as they would otherwise under-secure wider investment. This effect was illustrated using the following diagram.



4.142 In this example, a new User is having an effect on wider transmission investment plans nearby, however the User would have no liability if negative circuit signals were included in calculating the ICRP as the three negatives would cancel out the two positives. The Proposer suggested that negative signals should be set to zero in the ICRP process to avoid under securing wider transmission system investment by the TOs.

4.143 This process would give rise to nodal and zonal signals of where transmission investment would be required, and that these signals could be scaled to apportion the wider VAR across generators.

4.144 One Workgroup member questioned why actual TO transmission CapEx was not being used. The Proposer explained that this process was a method of apportioning the TO investment cost rather then deriving them; i.e. the end result of the ICRP method would be scaled to apportion the correct TO investment cost (after taking account of asset reuse, sharing and compliance factors)

Generic Methodology based on Transmission Boundaries

4.145 The Proposer also presented a simpler method where wider TO CapEx is split by an assessment of the capability of transmission boundaries, as set out in the SYS. This process used the global wider TO CapEx figure and separated it into load-related (LR) and non-load related (NLR) expenditure.

4.146 LR CapEx is spent (by the TOs) to increase the capability of the transmission system, and therefore would be apportioned based on the increase in boundary capability over the four year notice period. These increases are set out in the Seven Year Statement (SYS) and would be multiplied by the physical size of the infrastructure that the boundary represents, expressed as the 'length' of the boundary in MWkm. This acts to weight the capability increase by the amount of investment required to make it.

4.147 NLR CapEx is spent (by the TOs) to replace assets and maintain the capability of the transmission system, and therefore would be apportioned based on the existing capability of the boundary. This ensures that those areas of the network with the most infrastructure to repair and replace have a proportionately higher NLR liability to cover.

4.148 The LR and NLR CapEx for each boundary would be summated and mapped to zones as set out in the SYS (table for 2011 shown below).

SYS Zone	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17
Z1	1	1		1	1	1	1	1	1		1					1	
Z2		1		1	1	1	1	1	1		1					1	
Z3			1	1	1	1	1	1	1		1					1	
Z4				1	1	1	1	1	1		1					1	
Z5					1	1	1	1	1		1					1	
Z6						1	1	1	1		1					1	
Z7							1	1	1		1					1	
Z8								1	1		1					1	
Z9								1	1								
Z10									1							1	
Z11									1								1
Z12														1			
Z13												1					
Z14														1			
Z15															1		
Z16										1		1					
Z17										1		1	1				

4.149 Where a boundary has an effect on more than one zone, the TO CapEx on that boundary would be apportioned to the zones based on their relative proportions of pre- and post-commissioning generation shown for the year in the Seven Year Statement. The zonal CapEx figures are then divided by the pre- and post-commissioning charging base to give a unit cost of wider liability for each zone (£/MW). The charging base is taken from the current year SYS with the generators who have notified cancellation or closure removed.

4.150 Following discussion the Workgroup concluded that an ICRP methodology for calculating wider liability was overly complex, and that direct application of TO CapEx to the transmission zones would be more cost reflective and consistent with the defect that CMP192 is seeking to address, namely avoiding inefficient TO CapEx spend.

The Level of Transmission Capacity Sharing Between Power Stations (f)

Summary of Discussion

The Proposer considered that sharing of transmission capacity is included implicitly within the CMP192 methodology through the apportioning of transmission (TO) CapEx across all generators.

Capacity Sharing

4.151 The different levels of sharing of transmission capacity by post-commissioning generators of different operational or fuel types is not currently considered in the transmission charging arrangements (CUSC Section 14). However, it was also noted that as the liability in the original CMP192 proposal was scaled to a proportion of transmission investment to establish VAR, the Proposal implicitly included sharing evenly across all generators, be they pre- or post-commissioning, based on their TEC and the notice they provide.

4.152 The Proposer noted that there was insufficient information available currently to discern exact apportionment of the VAR to individual post-commissioning generators, and any apportionment by National Grid could be considered as picking winners and losers and highly subjective. It was noted that should transmission sharing be encompassed by the charging arrangements in the future then this could be incorporated within the CMP192 user commitment arrangements easily through a consequential future CUSC modification.

4.153 In terms of attributable works (TO) CapEx, the Proposer noted that there would be a level of sharing based on the pro-rata capacity of the individual project(s) against the capacity of the attributable transmission investment. This approach was consistent with the approach to the other attributable factors used by National Grid. This would mean that on shared projects there is no over-securitisation across the individual Users. It also ensures that where TOs are 'future proofing', individual Users do not cover these liabilities.

4.154 It was noted that one drawback of this approach is that, where transmission assets are future proofed, later Power Stations would avoid liability for these works. The Workgroup questioned whether this could in some cases lead to parties seeking to move connection dates to come on later and so avoid liabilities. The Proposer recognised this and noted that it is an issue with the existing arrangements that National Grid sought to deal with through customer engagement rather than through code modifications.

The Proportion of TO Investment Not at Risk Due to Connect & Manage Regime (g)

Summary of Discussion

DECC's decision on transmission access means that generators can be connected to the system before sufficient wider transmission investment is completed to ensure compliance with the SQSS. In these areas of the network, the Proposer believes that generators' liability to the wider VAR should be reduced as such investment is at a lower risk of being inefficiently incurred.

The Proposer suggested a simple linear function based on the ratio of required capability to available capability. An alternative was discussed based on an assessment of cancellation/closure likelihoods, however that was considered to have similar complexities to the approach considered under issue d.

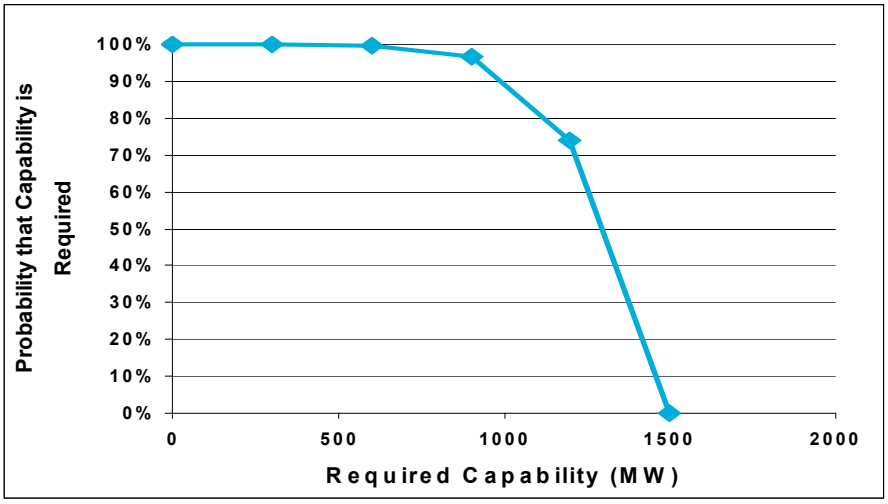
Compliance Factor

4.155 As a result of the DECC decision on transmission access and the associated enduring Connect and Manage arrangements, generators can now be given access to the system prior to the transmission investment required to support them being completed. Where generators are connected in advance of works required to achieve compliance with the SQSS, the Proposer considered that the risk that such transmission investments be deemed to be inefficiently incurred was small. The reason given for this was that generation in the locale could reduce TEC and the transmission investment would still be required to meet SQSS fault level compliance. Therefore the Proposer considered that generation users in such areas of the transmission system should have a reduced liability to the wider VAR.

4.156 One Workgroup member highlighted a concern that a generic methodology does not provide accurate data. It was noted that if there is only one non-compliant boundary, in Scotland, more would be secured because of the distance as it is MW long, rather than a local area. It was confirmed that non-compliance brings the charge down.

4.157 The Proposer detailed a simple linear function for each boundary on the system, determined as a ratio of the 'available capability' over the 'required capability' as detailed in Section 8 of the SYS, capped at 100%. This ratio could then be used to reduce the user commitment required at boundaries where there is a lower risk of transmission investment being inefficiently incurred.

4.158 An alternative methodology was proposed whereby the compliance of a boundary did not reduce linearly, but through a probabilistic assessment of the likelihood of operation of the generators affecting the boundary. This required the NETSO to make a judgement on the likelihood of plant cancellation/closure (as previously discussed under issue d), and then run a probabilistic assessment based on likelihood and size to get a distribution curve. This distribution could then be compared to the required SQSS capability on the boundary to arrive at a boundary compliance factor (see example graph below).



4.159 As the probabilistic assessment is based on the amount of generation behind each boundary rather than the required SQSS capability, this approach could result in a fully compliant boundary having a compliance factor which was less than 100%. This approach would therefore require an adjustment on each boundary to avoid this.

4.160 In discussing the determination of closure/cancellation likelihoods under issue d, the Workgroup considered that the argument that identifying the likely lifetimes of post commissioning generators was complex and subject to significantly subjective assumptions.

The Level of Transmission Asset Reuse (h)

Summary of Discussion

In cancelling a transmission investment that is no longer required, there is a certain proportion of the assets that the TO would be able to move to other projects or use as spares. The Proposer undertook analysis that indicated a global generic factor should be 33% of wider VAR. The Workgroup discussed having a specific asset reuse figure for a user's local works that could vary during construction to allow a more cost-reflective approach.

Initial Assessment of Asset Reuse

4.161 A proportion of the transmission assets that become surplus when a generator cancels could be re-used, depending on the type of asset and whether or not they have already been installed, which could have the effect of reducing the VAR. For example, a tower may be re-sited elsewhere if it has not yet been erected, but once it has it is not economic to dismantle, transport, store and rebuild it elsewhere.

4.162 The Proposer noted that these additional costs largely negate the benefit of reuse for the majority of asset types, as they are included within the VAR calculation. For example, where a project has installation costs of 50% of the total project cost, asset costs of 50%, and deinstallation costs of 50%, the VAR should be 150% if post installation asset reuse was included. National Grid has included post-installation reuse where the material to installation cost ratio is high.

4.163 The Proposer presented initial average figures from its recent TO construction projects as an illustration, which indicated that around 20% of assets could be reused economically. Similar information from other TOs was requested but unavailable. This information is shown below.

OHL	%
Planning and Engineering	3
Site Supervision	17
Right of way	8
Other	34
Towers	13
Foundations	9
Clamps and fittings	3
Conductors	14

Cable	%
Planning and Engineering	2
Site Supervision	8
Right of way (covered elsewhere)	0
Other	4
Cables	18
Joints	4
Cable Laying	66

4.164 A Workgroup member questioned how the Proposer had arrived at a 20% transmission asset reuse figure and whether this included tower reuse. The Workgroup member cited information from an earlier Workgroup meeting presentation where it appeared that a higher number would be more appropriate if towers were included. The Proposer noted that once a transmission asset had been installed, as the installed cost often represented 50% of the actual cost, then taking account of installation and removal of the towers, the 20% figure did not include towers.

Further Assessment of Transmission Asset Reuse

4.165 The Proposer refined this initial information during the Workgroup process, and a more detailed methodology for identifying the actual proportion of

reusable transmission assets was determined. The following table was produced to assess levels of reusability.

Asset	Reusable Pre-Installation	Reusable Post-Installation
Cable	Some	N
Communications	Y	N
Telecoms	Y	N
OHL	Some	N
Protection	N	N
Reactive Plant	Y	N
Reactor	Y	N
Substation	Y	N
Switchgear	Y	only AIS
Transformers	Y	Y

4.166 CapEx figures for the transmission works associated with five commissioned generation projects were then analysed to determine the level of sunk costs, and hence reusable assets. Transformer costs were excluded as they are almost always economic to reuse both before and after installation.

Project:	A	B	C	D	E
Total Assets	£36.8	£21.2	£25.8	£77.6	£31.9
Assets Sunk Pre-Installation	£22.3	£10.8	£16.7	£44.9	£16.6
Assets Sunk Post-Installation	£36.8	£21.2	£25.8	£77.6	£31.9
Asset Reuse (Pre)	39%	49%	35%	42%	48%
Asset Reuse (Post)	0%	0%	0%	0%	0%
Overall Asset Reuse	**20%**	**25%**	**18%**	**21%**	**24%**

4.167 This assessment gives an average transmission asset reuse factor of 21% for non-transformer assets. Looking at what proportion of the forecast 2011/12 National Grid TO CapEx figures are assets (transformer and non-transformer) and applying these asset reuse figures (100% and 21%, respectively), indicates that a generic Global Asset Reuse Factor (GARF) should be **33%** of TO CapEx spend.

Local Asset Reuse Factor

4.168 The Workgroup discussed the application of the generic Global Asset Reuse Factor to attributable transmission works. The Proposer suggested that attributable works could have a specific figure. This would be more cost reflective and allow the figure to vary as the project progressed. Taking account of the reduction in 'reusability' once transmission assets are installed would allow a higher figure to be applied in some cases prior to construction starting. The Proposer envisaged the specific attributable figure would be detailed along with the attributable TO VAR and communicated to the customer through the agreed process.

Other Considerations

4.169 One member of the Workgroup queried if National Grid had ever given up a wayleave for a transmission line, as in these cases the assets would not be reused. The Proposer noted that a wayleave is conditional on there being a power line above it, so in the event that a line was decommissioned the right to the wayleave would fall away at the same time. The TO would retain an easement on the land which allowed a power line in perpetuity, however the easement would be for the exact same power line design (i.e. the towers would have to be put in the same

place, etc.). As a new power line would still require planning permission, wayleave, etc. it is therefore is unlikely to be of significant use to the TO.

4.170 When discussing the proposed transmission asset reuse factor, one Workgroup member suggested splitting the factor by component type, as there will be differences depending on the projects. It was suggested that specific numbers will increase the difficulty of creating a generic methodology and therefore reduce predictability. The Proposer suggested however that a specific number may be more appropriate for attributable works.

4.171 A Workgroup member asked if there was a difference between asset reuse by the TO and by the generator, and if so this should be made clear. The Proposer indicated that the intention of asset reuse in CMP192 was to only cover transmission asset reused by the TO, although another generator could use the transmission assets if they decided to locate at the same location.

4.172 The Workgroup discussed 'phasing' and it was noted that some transmission projects will have to be phased due to the type of project that they are. The Proposer indicated that phased projects was a timing issue, and ultimately later stages would result in the transmission assets being used, and therefore efficiently incurred on behalf of the end consumers.

4.173 The original CMP192 proposal considered TEC reduction as the same as cancellation and closure, and therefore if a pre-commissioning generator reduced or cancelled at a late stage it would be liable for abortive costs. The Proposer confirmed that this would apply equally where the reduction was as a result of CAP150[16] deemed reduction.

4.174 One Workgroup member queried the issue of stranded transmission assets in relation to the suggested methodology, as they considered that most assets will be re-used eventually. The Workgroup considered that the methodology should not be based on an issue that is not real, as the evidence currently shows that there are no stranded transmission assets. However, another Workgroup member noted that despite there being no examples in the past, the issue should still be recognised as a potential scenario in the future. The Proposer considered that the methodology should mitigate the risk of future stranding and put in place a mechanism to deal with it.

[16] CAP150 introduced a right for National Grid to reduce a user's TEC under certain circumstances

The Definition of Local and Wider Investment for User Commitment (j)

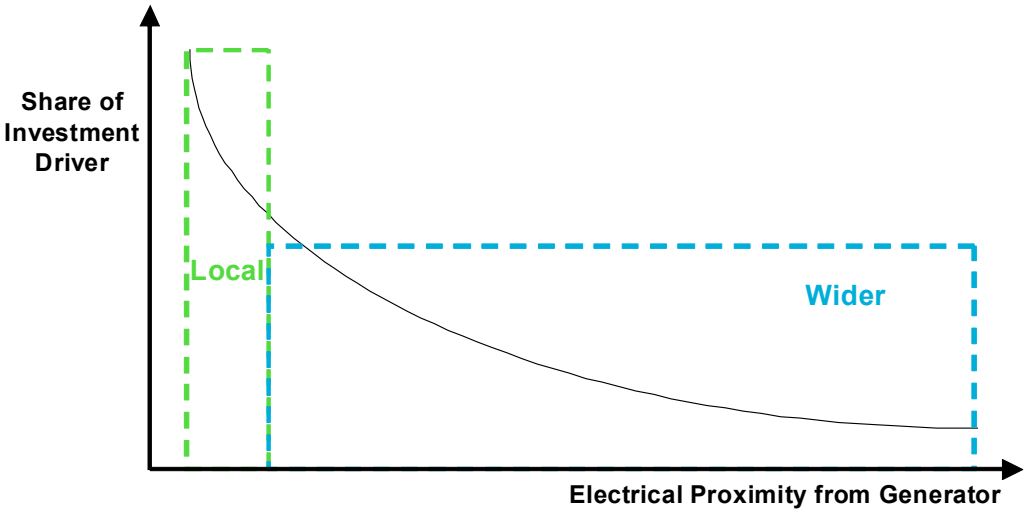
Summary of Discussion

Local works can be directly attributed to a small number of generators, and therefore the liability for them should be targeted at those generators. Wider investments are difficult to apportion to individual parties due to the meshed nature of the system and the requirements of demand security.

The Proposer suggested several definitions of 'local' works, but believed that the most transparent was a modified version of the charging definition currently contained within Section 14 of the CUSC. This definition is based on the physical assets and therefore most transparent for Users. It was suggested that this definition was modified to ensure that offshore Users would not be unfairly over-securitising local works.

Defining Attributable Works

4.175 The Proposer explained the reason for splitting transmission investments into 'attributable' and 'wider' within the proposal. The Proposer considered that attributable investments can be directly attributable to a limited number of generators, whilst wider has multiple drivers, including demand security, which are difficult to disaggregate. This is illustrated in the following graph.



4.176 The Proposer considered that there were three existing definitions that could be used to define 'attributable' works for user commitment: Local; Enabling; SQSS Section 2.

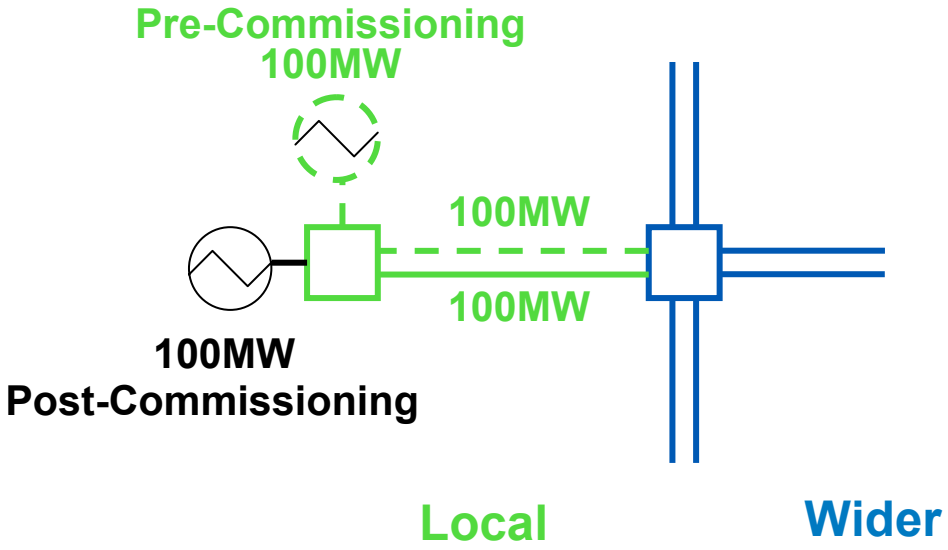
4.177 *Local* is defined as being works up to the first Main Integrated Transmission System (MITS) node, where a MITS node was defined as being a node with (i) more than four transmission circuits, or (ii) two or more transmission circuits and a Grid Supply Point (GSP).

4.178 *Enabling* is defined as being the minimum transmission reinforcement works which need to be completed before a generator can be connected to, and given firm access to, the transmission system.

4.179 *SQSS Section 2* defines works that are required to meet fault-level criteria as assessed by the TO.

4.180 One Workgroup member noted that there may be different perceptions of 'attributable'. The Proposer advised that CUSC Section 13 defines 'Enabling' and 'Wider' works whilst 'Local' is defined in CUSC Section 14 which is based on the SQSS Sections 2 and 4 definition. It was suggested by the Proposer that a new definition of 'attributable' works could be developed in order that attributable transmission works are counted as those which are affected by a limited number of generation Users. This would have a cost reflectivity benefit but also increases complexity by adding a further definition into the CUSC. One Workgroup member suggested that there could be different risk profiles depending on the type of transmission works and it was advised that transparency was important, with respect to attributable works, and that a global total as well as individual figures should be provided.

4.181 The Proposer advised that all definitions have an issue for attributable works due to the principle in CMP192 that, in order to develop a generic and transparent solution, post-commissioning generators only have an effect on wider transmission investment. There may be situations where a post-commissioning generator reducing TEC impacts upon a pre-commissioning generator's attributable transmission works, with the risk to the attributable transmission investment therefore effectively being held by the end consumer through the TO (see diagram).



4.182 One member of the Workgroup noted that if there was a generic methodology then there should not be a volatility issue. A concern from one member of the Workgroup was that a Power Station that is operating may have to assume a new liability that it was not aware of previously and that, theoretically, the liability should be divided between these two (pre and post) generators.

4.183 It was suggested that if an existing Power Station was paying for a transmission attributable connection, it could arise that they are liable for new securities / liabilities if another new Power Station wanted to connect using the same attributable connection, therefore, although this situation is unlikely, it should still be addressed in the solution for CMP192. Another member of the Workgroup concluded that it should either be left as an acceptable risk, or that something should be put in place to deal with this possible situation but without creating complexities. The Proposer indicated that under CMP192 existing (post-commissioning) generators did not face attributable (transmission works) liabilities once they had commissioned.

4.184 The Workgroup discussed liabilities in terms of charges and transmission investment and the Proposer advised that this aspect of CMP192 may be

an acceptable simplification to avoid the volatility in post-commissioning generators' liability that could be caused by new pre-commissioning generators connecting nearby.

4.185 The Workgroup discussed scenarios where enabling works are greater than attributable, and it was agreed that enabling works help to get quicker access to TEC. In order to provide clarity on the definitions it was agreed that the enduring Connect and Manage guidance[17], and the minutes from the DECC discussions on transmission access[18], would be considered the Workgroup. It was clarified that the definition currently used for calculating final sums is in SQSS Section 2.

4.186 The Workgroup discussed the issue of how objective the current CUSC definition of 'enabling works' is and one member felt that the CUSC enabling works definition was more clear and consistent. The Proposer suggested that using the charging definition of local was preferred to the enabling definition, as it was based on a physical description of assets up to a MITS node rather than an assessment of fault level criteria. The Proposer believed that this would improve transparency of attributable works for users.

4.187 The Workgroup considered the definitions of attributable and wider works in terms of the share of investment driver in relation to the distance onto the transmission system. One Workgroup member suggested that there is no liability until the transmission boundary capacity is hit, and at that point it should be 100%. Another member felt that a 50/50 approach (between generation and demand) was not appropriate and that a more accurate way needs to be identified. It was noted that demand is a much smaller granularity, but that Ofgem suggest that demand is picking up half the risk. The Workgroup agreed that it is important to draw a conclusion on this subject, but that ultimately the cost will be reflected in the price that the end consumer pays.

Offshore Attributable Works

4.188 One Workgroup member noted that as part of CMP192, consideration may need to be given to the fact that many offshore Users want control over their spend profile. Another member added that they would also like this to be considered in terms of 'attributable' and 'wider' transmission investment. It was noted that applicability of any solution to all CUSC parties has been highlighted in CMP192.

4.189 A member of the Workgroup presented a potential grid connection scenario for an offshore generation project that is due for completion in 2021 and is in discussion to secure the grid connection with National Grid. Discussion ensued around the design and what would be wider and attributable transmission works. One member of the Workgroup queried what would happen in terms of liability and network access if an aspect of the transmission design was classified as attributable works, but then became wider works as a result of other users. It was noted that this would only occur if enabling works was used as a definition.

4.190 It was noted that there are currently no offshore arrangements for attributable and wider works, but they could be included in the CUSC arrangements when appropriate. The Proposer advised that liability could be provided once these definitions had been agreed for offshore. The Workgroup agreed that it is important for parties to understand if all or part

[17] http://www.nationalgrid.com/NR/rdonlyres/01463C70-F178-4930-9A00-780FE5330F2D/47332/CMversion50.pdf
[18] http://www.decc.gov.uk/en/content/cms/consultations/mproving_gridi/mproving_gridi.aspx

of the transmission works associated with their offshore Power Station project was going to be treated as attributable or wider works. One Workgroup member queried why a definition could not yet be written for offshore attributable works, and expressed a concern that a User will not sign an offer if they do not know what they could be underwriting. Another member suggested covering the 'worst case scenario' by classifying all offshore works as attributable and calculating the liability based on that.

4.191 To take account of the possibility that offshore wider works could be expanded to cover onshore wider works, the Proposer suggested a modification to the definition of attributable after further discussion. This was that offshore attributable works could be treated, in conjunction with the CUSC section 14 definition, as: "the pro rata share of capacity to connect the offshore unit to the nearest suitable point on the network, consistent with the onshore arrangements".

4.192 This definition would cover the situation where attributable works for a generator are increased by a TO as an alternative to more expensive reinforcement elsewhere. The Proposer believed that this definition was implicitly applied to onshore attributable works already, as in the majority of cases the nearest suitable point would be the connection point. This would avoid any potential for discrimination in favour of offshore.

4.193 One Workgroup member was concerned that this was too ambiguous and would not be acceptable to developers or Ofgem, and was also inconsistent with other CUSC text. The Proposer indicated that it had based this definition on, and understood it to be consistent with, the approach to defining enabling works recently introduced into the CUSC by DECC.

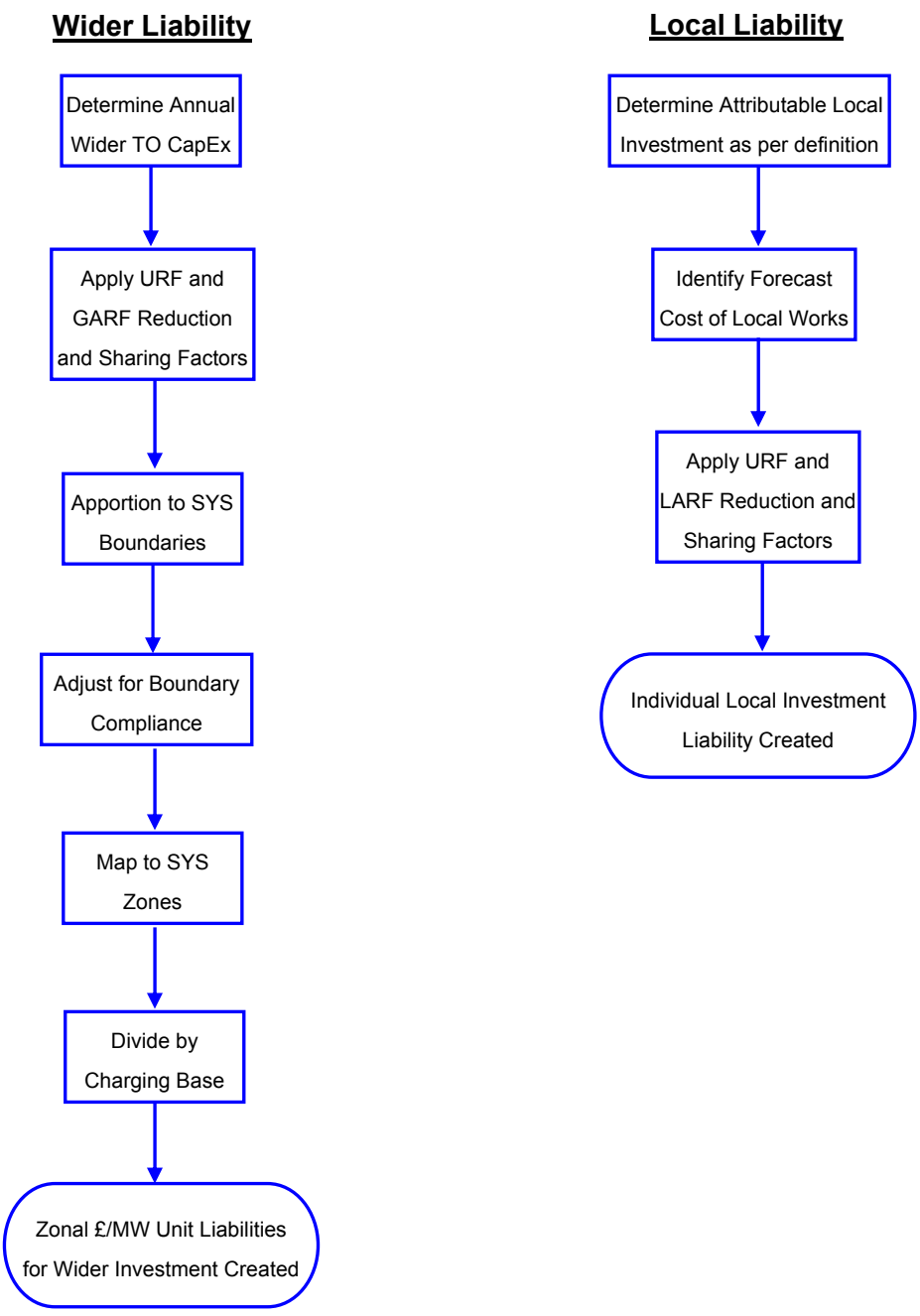
4.194 This issue was discussed further by the Workgroup post-consultation in Section 9 (paragraphs 9.78 - 9.80), where it was decided to explicitly extend this definition to cover all Users.

Strawman of the Original Proposal

Summary of Discussion

After concluding the Workgroup discussions of all the eight components highlighted in the original CMP192 proposal (although not all aspects of the Workgroup's Terms of Reference), the Proposer discussed the elements of a strawman proposal for consideration. This is attached as Annex 4.

4.195 In order to demonstrate to the Workgroup how the strawman proposal works for different parties over a period of time, the Proposer presented a spreadsheet to the Workgroup which acted as an indicative strawman in order to facilitate understanding of the issues and impacts with regard to wider liability. This has been updated and published on the CMP192 website[19], and is summarised in the following flow chart.



19 http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandinggroups/wg/CMP192/index.htm

4.196 One member of the Workgroup suggested that the strawman as demonstrated in the spreadsheet potentially had no effect on security for pre-commissioning generators as the money that is required to be paid remains the same. It was agreed that the Workgroup should consider the concept that the initial estimate of attributable TO CapEx be a cap. Some members believed that this was consistent with the current IGUCM and provided certainty. After further discussion the Workgroup considered that introducing a cap would create an asymmetric risk for other users.

5 Workgroup Discussion on Broader Impacts

5.1 This section sets out the discussions on the issues arising as a result of the Workgroup assessment of the CMP192 Proposal, the broader aspects of the Terms of Reference and the wider implications of user commitment arrangements. The presentations on the various elements of the Proposal as it was developed are available on the National Grid web site at:

http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandinggroups/wg/CMP192/index.htm

5.2 The main areas of discussion covered in the Workgroup are as follows (letters refer to the items in the Terms of Reference):

- Real and perceived discrimination between users (i)
- Accurately quantifying the transmission liabilities that cancelling or closing Power Stations impose (t)
- The Security of Supply Implications (n)
- Provision of Information (o & p)
- Assessment of Volatility of User Commitment (q)
- Interactions with Wider Policy (r)

Real and Perceived Discrimination between Users

The applicability of the user commitment arrangements for all users, including pre- and post-commissioning (i)

Summary of Discussion

The Workgroup considered the Authority's previous decision on CAP131, particularly with respect to the statement that justification of different treatment of pre- and post-commissioning generators for User Commitment had not been demonstrated. Whilst the majority of the Workgroup did not agree with Ofgem's decision, it was considered to be a fundamental issue for the Proposal as it was based on applying similar treatment for both types of User.

It was noted that User Commitment could be based on one of two principles: either indemnifying historic transmission investment, or avoiding inefficient future transmission investment. Some members of the Workgroup considered that there was no need to indemnify existing assets as they would always be used eventually, and that no User had defaulted on use of system charges to date. Some members indicated that if the goal was supporting TO investment decisions, this would be better achieved through information exchange. This debate was developed further by the Proposer in the next section (issue t).

A number of members of the Workgroup considered that alternative proposals should be raised such that the Authority could still agree to one if it did not believe due discrimination had been proven.

5.3 The CMP192 Workgroup considered the issue of discrimination and specifically whether treating pre- and post-commissioning generators differently in respect of user commitment would constitute undue discrimination. The Workgroup noted that, in simple terms, undue discrimination would occur if generators who were in relatively similar circumstances were treated differently by the arrangements, or when relevantly different generators were treated in the same manner. In other words any different or similar treatment had to be justified.

5.4 The issue of discrimination had arisen in the context of a previous amendment to the CUSC, CAP131, which proposed a different treatment of pre- and post-commissioning generators (referred to as "new" and "existing" generators in CAP131) for the purposes of providing User Commitment. In its decision rejecting CAP131, the Authority cited a lack of evidence that undue discrimination would not arise as a result of the different treatment of new and existing generators. The Workgroup therefore reviewed and discussed the views given by the Authority in its CAP131 decision letter and gave further consideration as to why and how the situations of pre- and post-commissioning generators may be relevantly similar or different.

5.5 Some Workgroup members considered that the issue of discrimination (due or undue) does not arise because they believe that, based on the services provided by the transmission companies, pre- and post-commissioning generators are clearly different and therefore different treatment would not result in discrimination.

Background to Discrimination

5.6 The Authority issued its decision on CAP131 on the 13 October 2008. In its letter, which rejected the implementation of CAP131, the Authority stated that it was not convinced the industry had properly considered whether the proposals were consistent with requirements under relevant European legislation, domestic legislation and the transmission licence that relate to the prohibition on discrimination between users of electricity networks.

5.7 Furthermore, it felt that the Final Assessment Report did not consider the issue of discrimination in the treatment between new and existing generators sufficiently and did not contain sufficient analysis or evidence to show that new and existing users were relevantly different, so as to justify a difference in treatment. The Authority stated that this evidence was necessary to enable a decision to be made on CAP131. It also felt that no additional evidence had been provided through the responses to its Impact Assessment on CAP 131 that justified different treatment.

5.8 The Authority was also concerned that CAP131 sought to treat pre- (new) and post- (existing) commissioning generators differently as distinct classes, when specific generators within these classes may have different risks of stranding assets. It gave the example that a pre-commissioning generator with consents and finance in place may represent a lower stranding risk than a fossil fuelled generator near the end of its life. It said that it had not seen a robust argument that the risk and impact of termination can be neatly categorised as between pre- and post-commissioning generators.

5.9 The Authority noted that different treatment of generation types could be justifiable if it accurately reflected the relative risks of the two classes of generator, but felt that there was not compelling evidence to show that this was the case. However, the Authority did say that there may be other ways of generically capturing these aspects in a proposal that does not require detailed assessment of every single project in the GB queue, but that it did not believe that such a generic approach would necessarily be predicated on differentiating between new and existing generators, as this could be unduly discriminatory.

Differences in Treatment of Users

5.10 The majority of the CMP192 Workgroup did not agree with Ofgem that insufficient evidence had been provided by the industry when CAP131 was being assessed. However, it was felt important that the Workgroup should further consider why, or why not, pre- and post-commissioning generators may be relevantly different in the context of providing User Commitment, as this would affect the consideration of the original and alternative proposals.

5.11 The Workgroup considered two possible purposes that user commitment could be fulfilling; (i) indemnification of other transmission Users from the costs of stranded transmission assets and (ii) investment signals for the transmission companies.

<u>i) Indemnification and Stranding</u>

5.12 A number of Workgroup members felt that the key role of user commitment arrangements was to indemnify other Users, either wholly or partially, from costs caused by transmission investment that was unnecessarily undertaken by the TOs to provide TEC for a new generator, or an increase

in TEC for an existing generator, that was subsequently not required by the relevant generator. These members believed that once a generator had commissioned its generating station and received its new or increased TEC, that the transmission works to accommodate this TEC was deemed to have been completed and necessary. This was because such generators were no longer required to underwrite the future investment but were required to enter into a user commitment to pay connection and TNUoS charges instead.

5.13 These Workgroup members felt that a Power Station that had operated for many years and paid transmission charges (TNUoS) through that time was clearly in a different position to one that was still in development. The post-commissioning generator was most likely to have effectively paid the sunk costs that had been incurred to accommodate it on the transmission system, and perhaps paid more on top. These members believed that there should be recognition that such generators had "paid their due" and that it was unreasonable to provide additional indemnification.

5.14 These members also felt that if there were to be some form of commitment or security from post-commissioning generators, this should reflect the risk that insufficient charges would be recovered from them within a charging year due to a generator defaulting on its payments. It was noted that the current level of user commitment for post-commissioning generators was "two years' TNUoS" as implemented (by DECC) under the Connect and Manage arrangements.

5.15 The Workgroup noted that there was no code-related obligation or regulatory requirement on generators to operate for a set number of years, although they did provide (currently) a notice period for TEC reduction of one financial year and 5 working days. However, in reality there is an expectation that generators as a whole will operate for a sufficient number of years so that the cost of the works required to provide their connection to and use of the transmission system would be recovered over time.

5.16 As generators are under no requirement to operate for a minimum period of time, some Workgroup members considered that it was difficult to see why it would be necessary to indemnify against the possibility of a generator leaving "too early". Therefore, any indemnification, should seek to cover the risk associated with a generator failing to pay its required connection or TNUoS during the relevant charging period, in a similar manner that demand TNUoS and BSUoS are subject to security cover arrangements in the CUSC.

5.17 The Workgroup considered the likelihood of generation TNUoS charges not being paid during a charging period. It noted that although a generator's TNUoS liability is incurred for an entire year; running from 1st April to 31st March; the liability is spread across the year and is paid over monthly instalments. Therefore, the maximum loss that could be incurred by other Users would arise if the post-commissioning generator were to default on its TNUoS payments in April, at the beginning of the charging year. However, if such a generator were to go out of business, then it was believed that another party would want to acquire its generation assets and operate them. If it did, a valid connection agreement would be required for the relevant site.

5.18 The Workgroup noted that it would be possible for such a party to acquire the generating station without the original connection agreement and then apply for a new agreement from National Grid. However, this was considered as an unlikely option for two reasons. Firstly, this would potentially introduce a delay into when the new generator could start to operate the Power Station. Secondly, it would incur a brand new annual liability for TNUoS which it would have to pay in full, even if it picked up the

station part way through the year. Therefore, parties had an incentive to acquire the post-commissioning generator with its original connection agreement, meaning that the TNUoS bill for the year would continue to be paid. History to date (since privatisation in the early 1990s) has shown this to be the case with a number of GB generators having failed / gone into administration etc., being taken over (and their TNUoS bill paid to National Grid).

5.19 As there was therefore very little chance of TNUoS charges not being paid by post-commissioning generation, the Workgroup considered that it was unnecessary to require this risk to be indemnified through the CMP192 user commitment arrangements.

ii) Investment Signals for the Transmission Companies

5.20 The Proposer's CMP192 rationale for increasing the level of post-commissioning user commitment is to reflect that pre- and post-commissioning generation both have an impact on transmission companies' investment plans. Investment is planned on the transmission network on the basis of an assumed future generation background which is produced by the NETSO and the TOs and includes both existing and planned generation.

5.21 If an existing Power Station closes which was assumed to be in this background, then investment may be undertaken on the wider transmission network which would not have been necessary had the station closure been factored into the background. Similarly, if a developing Power Station fails to complete its project, but has been assumed in the background then unnecessary development in the wider transmission network may be undertaken.

5.22 Therefore, it is important to ensure that the best information is available to the NETSO and TOs regarding successful new generation build and generator station closures. The Proposer believes that as generators are the ones responsible for deciding whether or not to proceed with generation projects or to close existing stations, that user commitment is an effective incentive to ensure that these intentions are signalled to the NETSO and the TOs as soon as possible. As pre- and post-commissioning generators in the same location have the same effect on the transmission system background, then this suggests that they should be exposed to similar levels of User Commitment.

5.23 Some members of the Workgroup considered that if signals to the NETSO and TOs were the rationale for User Commitment, rather than indemnification, that it was important to consider the extent to which pre- and post-commissioning generators were able to respond in order to provide that signal. Pre-commissioning, it was noted that a developer would factor its expected exposure to charges through user commitment into any decision as to whether or not to proceed with a project in a similar manner to how it would factor any other costs it may be exposed to. For instance, by proceeding beyond a certain date a developer may be committed to certain construction costs in order to maintain a planning consent, may have to make a financial commitment to procure equipment or services, or be exposed to a higher level of User Commitment. Any of these potential costs would be factored into a decision on whether or not the project should proceed at any point in time.

5.24 Post-commissioning, it was felt that closure decisions would be influenced by relatively short term factors such as expected future power prices or spreads, the current state of generating equipment and the cost of any maintenance required to keep the plant operational. Members of the

Workgroup from generation companies stated that this effectively meant that the maximum notice that a generator would be in a position to give of a station closure would be two years, particularly as the forward power price curve did not go out any further than this.

5.25 Some members of the group felt that as pre- and post-commissioning generators are able to provide signals of their intentions in different ways that it was legitimate to have different user commitment arrangements to reflect this. Therefore, it may be appropriate to have a pre-commissioning user commitment whereby charges would potentially be payable for cancellations from four years before the due commissioning date, with a post-commissioning user commitment notice requirement of two years. However, it was felt that the financial exposure associated with these timescales should be symmetrical as the effect for the transmission companies' investment plans would be similar.

5.26 Other members felt that it would be appropriate to include alternative(s) that were symmetrical in terms of timescales too in order to ensure that, should Ofgem believe that the pre- and post-commissioning Users were not relevantly different, options that treated both case identically were available for approval and implementation. Therefore, options that had symmetrical two or four year obligations for both pre- and post-commissioning Users were considered by the Workgroup (see Section 10).

Accurately Quantifying the Transmission Liabilities that Cancelling or Closing Power Stations Impose (t)

Summary of Discussion

The Proposer explained why they believed that transmission liabilities should be based on avoiding inefficient transmission investment rather than indemnifying existing transmission assets.

5.27 In the view of the Proposer introducing equitable treatment of liabilities between pre-commissioning and post-commissioning generators would ensure fair competition between the two by accurately reflecting the transmission liability that they both impose. When a generator cancels or closes, the liability that it imposes on the Transmission Owner (and through the TO to end consumers) is based on the risk that transmission assets, both existing and yet to be built, are no longer required.

5.28 Of these two risks, the chance that an existing asset which has been part of the transmission system will become completely unused is considered to be small. The existing transmission assets are likely to have been in operation for a number of years prior to the cancellation or closure of a generator, and therefore what may once have been attributable assets for a single User will have been subsumed into the integrated transmission network through organic growth. Furthermore, even if the transmission assets do become unused at a point in the future, they would have been considered efficiently incurred by Ofgem through the regulatory transmission Price Control Review (PCR) process and would have formed part of the TO's regulated asset base (RAB) for a number of years. Historical investment decisions are not repeatedly scrutinised under consecutive PCRs as it is recognised that this would create significant investment uncertainty for TOs. This investment uncertainty would then drive TOs to require lengthy and onerous financial commitment from all Users to cover their risk, which would be passed through to consumers as higher costs. The risk that, due to a post-commissioning generator disappearing, an existing transmission asset becomes both completely unused and also carved out of the TO's RAB after having been efficiently incurred, is therefore considered to be negligible.

5.29 The second risk is that transmission assets which are at some stage of construction suddenly become either unnecessary or suboptimal due to the cancellation or closure of a pre- or post-commissioning generator. This is a situation which is far more likely to occur due to the relatively large size of most transmission investments compared to generation projects and plant. So for one transmission investment project there may be several new and existing generation plant which would change the required project should they cancel or close without notice. This risk is intimately tied up with the TO's CAPEX spend, as the liability imposed by a cancelling or closing generator will be the abortive costs experienced by the TO, which will depend on the stage that the transmission investment was at. Analysis has been done on identifying the level of TO investment and the spend profile associated with it, as described in previous sections of the report. This analysis effectively defines the risk to future transmission assets and hence the transmission liabilities that cancelling or closing generators impose.

The Security of Supply Implications

Potential risk of thermal plant closing early, whether the new arrangements promote earlier build of new generation, etc. (n)

Summary of Discussion

The Workgroup assessed the impact of the original CMP192 proposal on security of supply from both a pre-commissioning and post-commissioning perspective, and found that there were arguments for and against for both classes.

Impact on Security of Supply

5.30 One Workgroup member highlighted that if CMP192 is approved, then upon transition to the new regime, post-commissioning generators may advise that they cannot commit to a 4 year notice period and as a result may give notice to reduce TEC or withdraw. It was also noted that thermal plant may not come forward at all. Another member agreed that 4 years is inefficient and several post-commissioning plants will not be in a position to give 4 years notice of closure. It was commented that it is essentially a risk of unintended consequence and is dependant on what the generator will do.

5.31 The Workgroup discussed the issue of post-commissioning generators leaving and returning and an example of what would happen with the 4 year scenario in terms of replanting was discussed. The Proposer noted that it would be in the Users' interest to notify the NETSO early in terms of replanting and there was some discussion on the meaning of replanting. One member of the Workgroup queried the possibility of having a profile within the 4 years, and suggested that as long as the party provided information of their intentions then it could be acceptable. It was commented that the issue is not just user commitment and that swapping classes of TEC is an issue for security of supply.

5.32 The Workgroup considered how changes in general levels of user commitment may affect business decisions, which in turn could have an impact on security of supply if those post-commissioning generators decided to reduce their TEC (possibly to zero) or close. Although these effects could result in security of supply being compromised, there is likely to be an intervention to secure supplies should the level of plant margin on the transmission system appear to be at risk, however this will come at a cost. This was discussed separately for pre- and post-commissioning generators.

Impact of Pre-Commissioning Users

5.33 The effect on security of supply in respect of pre-commissioning generation is in relation to any impact on the rate of new generation build. Some arguments for and against an increase in the amount of User Commitment, for pre-commissioning generation, include:

5.34 Pro – Very low levels of user commitment could result in more highly speculative applications for transmission connections being lodged which causes a queue for local connections and slows the progress of transmission investment to support more viable projects. An increase in user commitment could reduce this risk. Although a theoretical risk, management of construction projects under the construction agreement mitigates the risk anyway to some extent. For example, a TO is unlikely to build a local transmission connection to a Power Station that it knows has

not even entered the planning process (be that with Ministers, the IPC or local authorities).

5.35 Con – Puts an additional risk and/or cost on new build projects which may make them less likely to proceed. Although this may have more of an impact on project costs, or competition, if it limits the amount of new entrants onto the transmission system, then very high levels of user commitment could affect security of supply if new build was curtailed significantly.

Impact of Post-Commissioning Users

5.36 The effect on security of supply here is where Power Station closures or TEC reductions are delayed or accelerated as a result of changed User Commitment. This is a less clear cut issue with respect to security of supply.

5.37 In a large number of cases generators are unlikely to change their closure or TEC reduction decision, but they will have to incur an additional payment (which some parties have referred to as a "closure tax"). In a smaller number of cases, paying additional user commitment may become a determining factor in a closure decision. Whether this supports or undermines security of supply could come down to individual circumstances.

5.38 Some arguments for and against an increase in the amount of User Commitment, for post-commissioning generation, include:

5.39 Pro – In some circumstances increased user commitment could have a short term positive impact on security of supply. Generators have indicated that they can only effectively make closure decisions one to two years ahead of the effective date. Presently, this is the level of user commitment that a post-commissioning generator is exposed to. Therefore, in these timescales transmission charges such as TNUoS can be avoided as part of the closure decision. However, if user commitment is extended out beyond this timescale, the transmission costs of the additional years are no longer avoidable and are effectively sunk. Therefore, in some cases a closure decision may not be made when transmission costs are considered too. However, if this were the case then it would appear to undermine the intent of the CMP192 proposal, as the TOs would have no additional information on which to base their transmission investment decision; indeed as it removes the current (baseline) two year notice period, it might be argued that CMP192 is a retrograde step in this respect.

5.40 Con – In other circumstances an increase in user commitment could have a short term negative effect. If existing generators are presently considering when to close plant in the near future, the prospect of being exposed to additional charges under a new (CMP192) user commitment regime may cause them to bring forward that decision and announce closure before the new arrangements come into practical effect. In that way they can be sure of avoiding the additional user commitment costs. This may happen when the possible additional user commitment costs are relatively large compared with the prospective margins from continuing to operate. Supporters of this view point to the circa 2.5GW reduction in TEC announced (by existing generators) in March 2011 as a result of the migration to the enduring Connect and Manage regime (with its two year approach to the TNUoS notice period).

Provision of Information

The provision of quarterly updates to each Power Station detailing their specific Cancellation / Closure liability going forward (o)

The provision to the Panel of the (GB) total figures for the Cancellation and Closure liabilities together with the total credit provided by users and how often this should be provided (p)

Summary of Discussion

The Workgroup discussed the content and timescales for the NETSO providing information on liabilities and securities to ensure transparency of the methodology and data used. It was agreed that such information would need to be sufficient to allow Users to determine their current and future liabilities and securities on either a six-monthly or annual basis.

Transparency

5.41 The Proposer indicated that one aspect that CMP192 was attempting to address was a lack of transparency in the current arrangements for User Commitment. The current arrangements for pre-commissioning securities do not form part of the CUSC, and as such they are not well documented or subject to robust industry governance. The Proposer believed that bringing the enduring user commitment arrangements under the jurisdiction of the CUSC would be a significant step forward in improving transparency and providing robust governance. This would also enable Users to bring forward proposed changes on an enduring basis and also alternatives during the assessments of this CMP192 proposal.

5.42 The Workgroup noted that the issue of transparency related both to the arrangements themselves (i.e. the methodology applied) and the financial consequences associated with the application of the methodology for individual Power Station projects (i.e. User need to be able to predict future liabilities and, if applicable, the associated securities).

5.43 It was agreed by the Workgroup that transparency could mean either (i) transparency of the methodology, or (ii) transparency of the data used within the methodology; i.e. how much are TO's expecting to invest in the next 6 months or 6 years.

5.44 The main areas of information currently available to market participants of future TO transmission investment plans were noted as:

Price Control data[20];
Seven Year Statement[21];
Statement of Works Register[22];
Quarterly connections report[23];
Offshore Development Information Statement (ODIS)[24];

[20] http://www.ofgem.gov.uk/Networks/Trans/PriceControls/Pages/PriceControls.aspx
[21] http://www.nationalgrid.com/uk/Electricity/SYS/current/
[22] http://www.nationalgrid.com/NR/rdonlyres/A0B5791D-94A4-4325-8F9A-1189A211A9F5/42612/CUSC_Exhb_V_Connecttomanage_11August2010_v12ECchecked.pdf
[23] http://www.nationalgrid.com/uk/Electricity/GettingConnected/ContractedGenerationInformation/TNQuUpdate/
[24] http://www.nationalgrid.com/uk/Electricity/ODIS/

5.45 This is a mix of global transmission investment data and project specific data. It was noted that specific data, such as quarterly reporting under the construction agreement, is important under a specific methodology, such as that envisaged for attributable works. However, global reporting would also be beneficial for a generic methodology to demonstrate that overall securities were not excessive, and also where this data was a direct input into the methodology.

5.46 The Workgroup agreed that more harmonisation of generation and transmission projects' timing would be beneficial to generators in managing their user commitment liabilities and also to consumers in minimising the potential for stranded transmission assets. Given the nature of investment, and recognising the impact of Connect and Manage, it was suggested that the opportunity for better alignment may be more concerned with sole User or enabling works; i.e. works required for specific connection(s); than wider works on the transmission system.

5.47 National Grid noted ongoing work that it was undertaking to establish milestones in contracts that would improve the transparency of transmission decisions. It was also noted that the construction agreements included obligations on both transmission and generation companies to exchange regular information. It was further noted that the TOs could pursue changes to contracts on the basis of this information; i.e. seek to reduce the TEC in the contract (as a result of approved CUSC amendment proposal CAP150).

Reporting Requirements

5.48 A member of the Workgroup highlighted that National Grid have figures on the impact on all CUSC Users (with user commitment obligations) in terms of 'liability' and 'security' in the strawman spreadsheet. They noted that if CMP192 was progressed then these figures will need to be actual, rather than indicative. Given this, the Workgroup agreed that National Grid as NETSO should be obliged in the CUSC to provide updates to all generation Users on their (i) liability and (ii) security user commitment figures for each of their (a) pre ('cancellation charge') and (b) post ('closure charge') commissioning Power Stations. The Workgroup discussed the regularity of these updates and it was felt that they should be either 6 monthly or annually.

5.49 Workgroup members identified particular areas where transparency of information was required and it was agreed that this should form part of the drafting for the original CMP192 proposal. The Proposer noted that in the current year certain information such as global TO CapEx would be known, but for future years this would be a forecast. This information would need to be made available by the TOs in order for National Grid to publish it. The Proposer noted that it had raised the matter at the STC Committee, and noted there may be concern about transparency of financing requirements from other TOs. The particular areas where transparency was suggested, by the Workgroup, as being important were:

- Forecast TO CAPEX for wider works on the transmission system. In combination with the methodology this would allow Users to predict future liabilities. This would be updated annually. This would include mapping to the Seven Year Statement zones.

- Forecast attributable TO CAPEX for attributable works on the transmission system. As this is specific to a Power Station project this would be exchanged as part of the reporting process and included as part of the milestones that are currently being introduced in contracts. This would include forecast transmission asset reuse.

5.50 From this data Users would be able to forecast likely future user commitment liabilities and also have a view of the total liabilities held by National Grid from all GB generators (both pre- and post-commissioning). The Workgroup discussed if the CUSC Panel should have a role in monitoring the liabilities held. The Proposer indicated that publishing information to all Users would allow individual Panel members or CUSC parties to monitor wider liabilities. The Workgroup concluded that the original CMP192 proposal should include an obligation on National Grid to place this information on its website either annually or as and when it was updated by the TOs.

5.51 It was suggested by a Workgroup member that individual generators should have the ability to appeal the figure calculated by National Grid. It was envisaged that this would be based on the existing appeal arrangements in the CUSC and would permit both pre- and post-commissioning generators to appeal their user commitment liability and level of security figures requested by the NETSO.

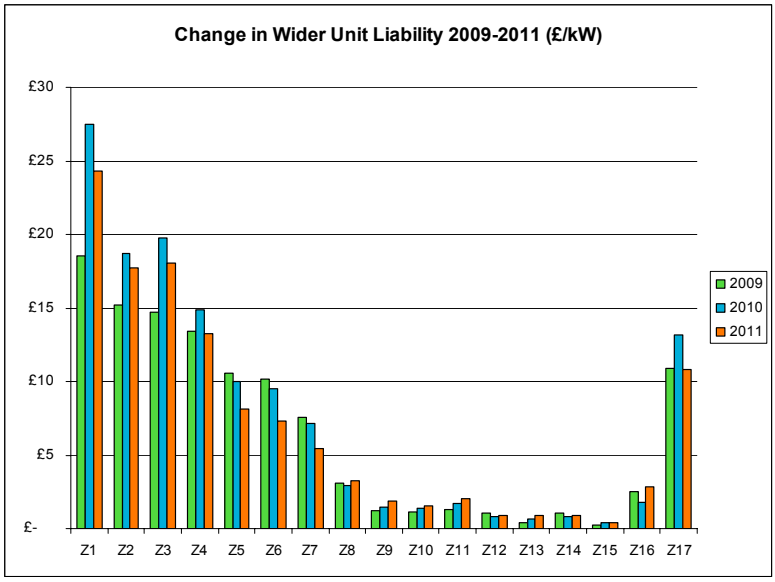
Assessment of Volatility of User Commitment

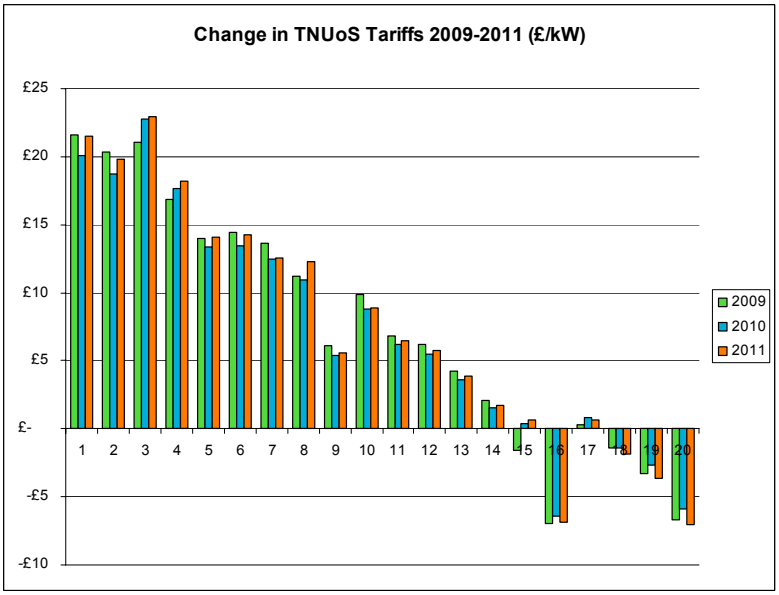
The volatility of liabilities and associated security of the Cancellation / Closure liabilities going forward (q)

Summary of Discussion

The Proposer presented analysis of the volatility of the Proposal, and compared it against the volatility seen in TNUoS tariffs over the same period. The potential volatility of local liabilities was discussed, and two options were considered: fixed and non-reconcilable, or variable and reconcilable. The majority of the Workgroup agreed that Users should have the choice between the two approaches for their local liabilities.

5.52 The Proposer used the strawman model (see above) to produce estimates of user commitment liabilities to demonstrate the volatility of the original CMP192 proposal compared to TNUoS. This comparison was undertaken for 2009, 2010 and 2011 and was based on publically available information on total TO CapEx spend, as well as data on boundary capabilities and existing and future generation base from the relevant Seven Year Statements.





5.53 It should be noted that the TNUoS figures have not included any change to align them to the SYS zones. The slight increase in volatility with the original CMP192 methodology is due to the specific annual nature of TO CAPEX, whereas TNUoS is based on a generic model. Therefore as transmission projects commence and complete the TO CAPEX spend will increase and decline, whereas TNUoS will remain largely constant. So whilst the original CMP192 methodology appears slightly more volatile it better represents actual TO spend and publishing forecast data will improve the predictability.

5.54 In terms of attributable volatility the Workgroup agreed that closer working between National Grid, TOs and the developers would be beneficial in mitigating this. National Grid noted that it has already started to improve quarterly reporting through the introduction of milestones and will keep this under review with developers and TOs.

5.55 The Proposer suggested that attributable VAR should be set prior to the four year liability period based on the TO's best estimate of the cost of the attributable works, and be non-reconcilable. The Proposer felt that this would limit volatility and improve transparency of Users' liabilities. Some members of the Workgroup considered that there was benefit in having a more cost-reflective approach, despite the increase in volatility that may ensue. It was suggested that Users should be able to choose between a fixed, non-reconcilable attributable liability and a variable, reconcilable attributable liability. The Workgroup agreed that this choice should form part of the Original proposal.

Interactions with Wider Policy

Compatibility with the enduring Connect and Manage regime introduced in August 2010, and interactions with wider policy (r)

Summary of Discussion

The Workgroup discussed various issues that could arise from interactions between the Proposal and various policy areas. Whilst it was accepted that the CUSC CMP192 proposal was standalone, the Workgroup felt it appropriate to highlight the various interactions such that the Authority had the best available information when making its decision on the Proposal. These areas discussed included Connect & Manage, Project TransmiT, Electricity Market Review and the European Third Package.

Interaction with Wider Policy

5.56 Throughout the development and assessment process for CMP192, the Workgroup acknowledged the interaction with other initiatives, such as the enduring Connect and Manage regime approved by DECC, Ofgem's Project TransmiT, and the UK Government's Energy Market Reform and the ongoing Transmission Price Control (RIIO-T1). Whilst these interactions were discussed, it is noted that the CUSC change process is standalone and it was outwith the remit of the Workgroup to assess CMP192 and any alternative(s) in the context of these external developments. The Workgroup understood that this was a responsibility of the Authority through its assessment of the CMP192 modification proposal. However, the Workgroup were keen to highlight possible interaction to aid consultation respondents, the Panel and Ofgem in further assessing CMP192.

Interaction with Connect and Manage

5.57 In June 2010 DECC confirmed that "connect and manage" would form the enduring arrangements to facilitate the connection of new generation projects, particularly renewable projects, to the GB transmission system. These arrangements enabled new generation projects to connect without the completion of "wider" transmission system reinforcements subject to the completion of "enabling" works that would facilitate the export of power from the Power Station to the transmission system.

5.58 The Workgroup considered the statement from DECC in the 'Government Response to Consultation on improving Grid Access'[25] in relation to extension of User Commitment:

"A small number of respondents felt the extension to user commitment was too small to make any difference in network companies' planning. Whilst we recognise these concerns, we believe that a one-year increase, which is supported by the majority of respondents, will have a positive impact on network planning by providing further information to the System Operator on generators' *intentions. In turn the operation of the extended commitment will provide evidence which could lead to a longer period being agreed through the usual industry governance process."*

[25] 'Government response to the technical consultation on the model for improving grid access' document can be found at http://www.decc.gov.uk/assets/decc/consultations/improving%20grid%20access/251-govt-response-grid-access.pdf

5.59 Some members of the Workgroup expressed concerns that within the original CMP192 proposal the DECC document on Connect and Manage[26] had not been mentioned. Consequently, some members felt it seemed too early to be proposing changes to this Government-directed regime until this had been in operation for a period of time. It was noted that although the DECC Connect and Manage arrangements were put into effect in August 2010 they only took 'practical' effect for existing generators (in terms of them reducing their TEC) in the run up to April 2011; hence the significant reductions in TEC (circa 2.5GW) shown on the TEC register in late March 2011.

5.60 The Proposer indicated that it did not consider the DECC decision prohibited further development of the connection arrangements and in particular user commitment at this time. Furthermore, the Proposer noted that Ofgem had indicated that National Grid should move forward on user commitment in their scoping letter on the scope of Project TransmiT published on 25th January 2011[27]. Previous work on User Commitment, namely CAP131, had indicated that a robust solution should clearly justify any difference in treatment between pre- and post-commissioning Users[28]. National Grid also highlighted the interaction with the Interim Securities arrangements[29] that are in place until March 2012, which suggested that an enduring arrangement (for User Commitment) would be required by that time.

5.61 Under Connect & Manage, a generator is able to relinquish TEC by providing one year and five business days notice to National Grid. For example, under the current baseline, in mid March 2012 a generator is able to provide notice of the closure of a unit to take effect from 1st April 2013 by requesting a reducing in their TEC (potentially to zero) in the existing Bilateral Connection Agreement (BCA). In the year (and five business days) between notification and closure it is possible that a generator may determine that it remains safe and economic to continue operation beyond 31 March 2013 and that it therefore wishes to reverse its relinquishing of TEC. To achieve this will require that generator to submit a Modification Application to their BCA with an associated fee in accordance with the timescales specified in the CUSC.

5.62 A generator who chooses to reduce TEC with a view to re-gaining it at some future date would need to be confident that on making their Modification Application that no enabling works would be required as a result of other new connections and connection offers which have taken place in proximity to their site after they gave notice (to National Grid) that they wish to relinquish TEC.

5.63 From a TO's perspective this might result in additional uncertainty and workload in assessment of connection applications. The generator (or their unit) has effectively 'taken a year off' from the transmission system, subject to enabling works, and the TO will not have any visibility of that generators' likely lifetime. In the interim period other generators are likely to have connected under the enduring Connect and Manage arrangements

[26] 'Government response to the technical consultation on the model for improving grid access' document can be found at http://www.decc.gov.uk/assets/decc/consultations/improving%20grid%20access/251-govt-response-grid-access.pdf

[27] Project TransmiT scoping letter can be found at the following link: http://www.ofgem.gov.uk/Networks/Trans/PT/Documents1/110125_TransmiT_Scope_Letter_Final.pdf

[28] http://www.ofgem.gov.uk/Licensing/ElecCodes/CUSC/Amend/Documents1/CAP131D.pdf

[29] More information on the Interim Securities arrangements can be found at http://www.nationalgrid.com/uk/Electricity/GettingConnected/PoliciesAndGuidance/

and the return (of the original generator) to the transmission system might increase further the system operation costs of managing constraints.

5.64 There is also the possibility that the increased TEC amount might be treated as a new unit/generator. However, where it relates to adjustments within a BCA this may not be the case, e.g. Year 1 TEC = 800; Year 2 TEC = 400; Year 3 TEC = 800. Some generators may consider this to be sufficiently flexible and that the requirements of additional application fees are a reasonable cost to bear.

5.65 An example of a plant in central Scotland was considered, and this showed that the annual transmission TNUoS charge might be c. £12M (£12/kW * 1000MW) and the Modification Application fee approximately £200k. However, transmission access and charging is frequently viewed as a stable and predictable aspect of a generator's requirements and as such the more risk averse may not choose to take account of this apparent flexibility.

5.66 There is a range of possibilities that a generator must consider when making such a decision, from the likelihood that none of the original TEC amount may be re-gained, only a proportion is available or that the full amount may remain available. It might be considered likely that the longer the notice period required then the greater chance that a generator would not regain their TEC.

5.67 The potential interaction of increasing notice periods and Connect and Manage might be judged based on an assessment of risk and generator behaviour.

5.68 The CMP192 proposed four year user commitment period with the associated 3 year and 5 business day notice period effectively extends the period over which the above circumstances may apply. Indeed over a longer period it might be considered more likely that external factors influence a generator's decision resulting in them choosing to return to the transmission system.

5.69 Due to this increased commitment timescales the returning generator (or unit) bears a share of the TO CAPEX. If this is lower than the baseline TNUoS-based liability, a lower financial commitment might increase the likelihood that a generator would bear this risk and that the likelihood of interacting enabling works is lower, and vice versa. However, a generators' judgement of this risk may not be purely economically based. The nature of the existing transmission system investment and connection rates might act as sufficient deterrent from this behaviour and the longer the lead time between the required notice period (to reduce TEC) and a potential return to service might be viewed as a greater likelihood that in the interim period other new connections (to the transmission system) result in the original generator being unable to re-gain 'their' TEC.

5.70 Following discussion National Grid agreed it would be possible to give a view on the potential for re-gaining TEC, by introducing a mechanism for generators to obtain an understanding of the risk at the point that notice is given. However, this would only be indicative and based on the contracted background. Some Workgroup members felt this would have little value given the background changes following new applications.

Interaction with Project TransmiT

5.71 The interaction of CMP192 with the aims of Ofgem's Project TransmiT was discussed amongst the Workgroup at the first meeting. The Ofgem representative advised that Ofgem wanted to be actively involved in

CMP192 but industry should be guiding by the content of the CMP192 proposal. The Workgroup felt that it would be useful to look at responses to the Project TransmiT Call for Evidence in respect of user commitment and securities and the Ofgem representative circulated a link to the published summary of responses[30] after the first meeting. The Workgroup agreed to highlight any issues regarding Project TransmiT during the course of the Workgroup meetings. A further letter on the next steps for connection issues as part of Project TransmiT was published by Ofgem on 22 March 2011[31].

5.72 The Ofgem representative discussed the March letter which laid out the high level principles against which the enduring user commitment arrangements should be developed. The representative advised that the essence of the letter was to seek the considerations of stakeholders on the possibility of launching an SCR on user commitment (which a Workgroup member noted could delay the introduction of a solution by up to six months compared with the CMP192 timescale). The Ofgem representative clarified that the two key points that Ofgem wanted to be considered was around fair allocation of risks and costs between parties and the transmission network, and fair allocation of risks and costs between generators and consumers.

5.73 When discussing the requirement of a good rationale for fair allocation of risk, the Proposer noted that the four year methodology in the CMP192 proposal had been chosen over indemnification so that information can be incentivised and benefit can be gained. The Workgroup Chairman noted that justification for the end consumer was required as well. The Ofgem representative advised the Workgroup that Ofgem do not have a firm view, but are consulting in order to work out if there is a model that provides more protection to consumers. Once consultation responses were received the Ofgem representative advised that the general views supported the process and that Ofgem's high-level views are unchanged and that their objectives of CMP192 remain the same. It was noted that the main aspect of CMP192 is not about allocating risk and that the focus is on Value at Risk.

Interaction with EMR Capacity Mechanism

5.74 The Workgroup considered the interaction with the UK Government's Electricity Market Reform, although noted that it is difficult to give a clear view of the links between CMP192 and the UK Government's proposed Capacity Mechanism because CMP192 is still in development while DECC has only just (12th July 2011) published its Electricity Market Reform (EMR) White Paper. The Workgroup has not (at the time of issuing this consultation document on 19th July 2011) had time to consider in detail the potential effects that the published EMR White Paper has on CMP192. However, prior to the EMR White Paper publication the Workgroup had considered some of the possible options that might be in the EMR White Paper and what these might mean for user commitment and CMP192.

[30] Summary of responses available in Ofgem's Project TransmiT letter: [30] Summary of responses available in Ofgem's Project TransmiT letter: http://www.ofgem.gov.uk/Networks/Trans/PT/Documents1/110125_TransmiT_Scope_Letter_Final.pdf

[31] 22 March letter available at: http://www.ofgem.gov.uk/Networks/Trans/PT/Documents1/110322_TransmiT_Connections_Consultation_FINAL.pdf

EMR: Introduction to the Capacity Mechanism

5.75 In its December 2010 EMR consultation document, DECC set out a proposed targeted capacity mechanism which placed an obligation on a central body to maintain a strategic (generation) capacity reserve.

5.76 A review of consultation responses highlights that there is a wide ranging set of views within the energy sector on this matter. It is fair to say however, that a good proportion of respondents expressed strong concerns about the introduction of the proposed targeted mechanism.

5.77 Some stakeholders were of the view that no incentives for new generation capacity were required and that the existing market structure would be sufficient to manage capacity issues. Others recommended that the UK Government adopt a different approach, that of more general financial support to all market participants. This approach is often referred to as a Reliability Market.

5.78 The Workgroup assumed that the EMR White Paper will either confirm DECC's intention to develop a targeted capacity mechanism, or instead decide to go forwards using a Reliability Market approach. As such both approaches are analysed in relation to CMP192.

EMR: A Targeted Capacity Mechanism

5.79 Such capacity mechanisms are in use in a number of electricity markets. In general they have the following characteristics:

- Government, or a chosen body, determines the required level of generation capacity/reliability, and if the market is able to deliver this;
- If a shortfall is expected, additional capacity is purchased/procured, ensuring the necessary mix of generation type and volume needed is taken into account;
- This additional capacity does not enter into market (i.e. does not generate), but instead is held in reserve. It is only called on for despatch when prices rise above a set level.

5.80 Such a capacity mechanism would need to work alongside existing schemes (particularly Short-Term Operating Reserve, or STOR, contracts). To be most effective, any procurement of targeted capacity would be through a tender process and bidders could tender using different types of generation. Again, it might also invite tenders based on interconnection, energy storage or demand side response.

5.81 A critical issue for generators would be how any reserve is despatched. In its consultation DECC set out two options for this: last resort despatch (in which the capacity mechanism related Reserve is only called upon after other generation resource is exhausted) and economic despatch (where that Reserve is called on when an economic trigger point is reached).

EMR: A Reliability Market for Capacity

5.82 Many consultation respondents to DECC said they would prefer the UK Government to develop a reliability market for capacity. A number of respondents challenged some of the assumptions made about a targeted market in the consultation. Most relevant was the assumption that through a targeted approach the UK Government would mainly be seeking to incentivise the development of new short term peaking generation plant. Instead many respondents suggested that what was needed was a

combination of capacity solutions such as peaking, mid merit and base load generation plant, as well as demand side response options.

5.83 A general payment for capacity would reward all firm, reliable capacity, including storage and demand side management. Such a payment, alongside revenue from the sale of electricity, would enable all plant to contribute to maintaining security of supply.

5.84 The challenge for the UK Government is that while this approach has many merits, it is not common in markets that are structured like BETTA (i.e. a significant level of vertical integration, and also making use of a significant amount of forward pricing). In addition, a number of respondents expressed concerns about cost, so careful design would be required to control this.

5.85 A reliability market for capacity might work as follows:

- Demand for generation capacity would be determined by a central body based on forecasts some years ahead.
- This body would contract for the purchase of reliable capacity. This capacity could come from existing generators, new plant or other forms of capacity such as storage or demand side response.
- This contract would need to be for an agreed period, as well as set out an agreed "strike price".
- This market could also be structured using a "contract for difference", so that the cost to the consumer is capped, should wholesale energy prices rise over the set contract period.

5.86 In introducing such a reliability market, the UK Government (or the chosen body) could either set a date from which the market would "go live", or instead define a set of market conditions (e.g. drop of capacity below a certain threshold) which would activate any chosen mechanism.

5.87 Reliability markets are more common in systems that make use of a single, (close to) real time market such as a Pool, with separation of generation and retail. Because the GB electricity market is vertically integrated there are also challenges to provide sufficient incentives and transparency around intra-company trading in any reliability market.

EMR: Initial Conclusions

5.88 Pending the detailed examination of the published EMR White Paper there are major uncertainties but the Workgroup made the following guarded observations.

5.89 A major concern for CMP192 is how to incentivise generators to signal their intentions on plant life and the need for capacity. If a targeted mechanism is chosen, the level of plant requiring transmission capacity, but not generating for larger amounts of time will increase. If a reliability market is chosen, it is likely there will be less capacity "on stand-by", but more widespread distribution of, and iterative use of, capacity.

5.90 National Grid has concerns about what notice it requires from generating plant coming to the end of its life. Generators express concern that they cannot confidently predict too many years ahead as to their plans for individual generation stations and expected closure dates. A targeted mechanism would likely contract with plant over a longer period, giving generators more certainty. If such plants contract there will clearly be an expectation for them to be able to provide capacity when required or pay a penalty.

5.91 It is not yet clear over what time period (e.g. will thresholds be set annually, 3 yearly, 5 yearly) a reliability market would choose to send signals to the market. Generators would prefer longer time signals, but the UK Government would prefer shorter periods to limit opportunity for error and for "over-paying" for capacity that turns out to be surplus.

5.92 While both mechanisms would be available for existing thermal generation plant, a reliability market is likely to be of most interest to such plant owners. They would be able to use this plant flexibly, still receive income from a reliability and wholesale market, and manage the plant as part of a wider portfolio. In contrast, many commentators fear that a targeted mechanism would instead focus on procuring new flexible peaking plant.

5.93 A targeted approach would likely have greater impact on pre-commissioning issues for User Commitment, simply because this approach would likely stimulate more new generation capacity, rather than incentivising extended or variable use of existing plant. Conversely a reliability market would likely have greater impact on post-commissioning issues for User Commitment, because it would incentivise existing plant to remain in the market for longer, by providing it with a new potential income source.

Interaction with Third Package

5.94 The Workgroup considered the interaction with the European Third Package of energy regulation. The Workgroup noted that between 2011 and 2014 up to twenty electricity-focused European Network Codes are due to be developed and introduced into law (and will require the GB industry codes, such as the CUSC, to comply).

5.95 These European Network Codes are expected to address a wide variety of areas related to system development and operation as well as market issues. These areas could potentially include User Commitment, to the extent national arrangement were perceived to impede efficient cross border trade. The Workgroup noted that whilst some of the European Network Codes were starting to be developed there was still a long way to go before the definitive position was clear on particular matters, such as User Commitment.

5.96 Given the nature of the potential changes that these European Network Codes might have on the (GB) CUSC and, in particular, user commitment the Workgroup felt it appropriate to record that there was the potential risk that the complete solution(s) developed by the Workgroup for the enduring user commitment arrangements might, perhaps, have a short life if the (currently unknown) changes arising from the European Network Codes came into effect.

5.97 Given the lack of either the Framework Guidelines or the indicative European Network Codes at this stage in the development of CMP192 the Workgroup agreed that they could not assess any further interaction that the Third Package might have on CMP192.

Interaction with Emissions and Renewable Regulations

5.98 In addition to the Third Package-driven European Network Codes, there are also evolving Directives and Regulations covering the promotion of renewables, and the restriction of emissions. As European Regulations evolve in this area this will affect, in particular, closure decisions of existing thermal plant. This has already happened with the Large Combustion Plant Directive (LCPD) and the Industrial Emissions Directive (IED).

5.99 The Workgroup recognised that the uncertainty cause by the introduction of new European requirements and the evolution of existing requirements would take priority over national arrangements. Where timescales within these European requirements were inconsistent with those imposed by a (GB) User Commitments regime generation would potentially be exposed to an unhedged risk, which would likely manifest as additional cost on end consumers. However, both of the existing Directives provide a greater than four years lead time.

5.100 As this information was publicly available the Workgroup believed that transmission companies would have already factored this into existing plans. National Grid noted that TEC was transferable so unless a clear notice of release of TEC was provided uncertainty still existed; i.e. a generator may decide to replant as compliant generation on the same site. The Workgroup noted that replanting of this nature would generally require a modification application and so some information was available to transmission companies.

5.101 When discussing CMP192 Transition the Workgroup sought to take account of the forced closure of LCPD opt out plant to ensure it could retire in an efficient manner. To avoid potential discrimination these Transition arrangements were made available to all generation on an equal basis.

Interaction with Interconnector Arrangements

5.102 The main focus of the Workgroup discussion was on generation, however it was recognised that under the CUSC interconnectors are treated as both demand and generation, depending on whether they are exporting (demand) or importing (generation and they have TEC). Ofgem have recently been reviewing the status of Interconnectors under the Third Package and, following a National Grid revision request, approved a change to the charging methodologies to remove TNUoS from Interconnectors.

5.103 Until clarity is available on whether Interconnectors will be TSOs and how merchant Interconnectors and exempt Interconnectors would be treated within the enduring GB framework it was unclear how enduring GB arrangements for user commitment would be applied to Interconnectors in the future.

Interaction with European Investment Funded Projects

5.104 Within the Workgroup it was suggested that the European Investment Fund could be used to finance major infrastructure projects, in particular those promoting better integration of the European electricity market and also for exploiting renewable sources on the periphery of the system; e.g. the North Sea grid. It was understood that this was a financing rather than a capital contribution scheme and therefore in its current form still relied on a national efficiency test for funding authorisation; i.e. it may make financing more attainable, but would not underwrite major projects.

5.105 The Workgroup considered that where generation projects had direct UK Government or European funding support that this would mitigate the need for User Commitment; i.e. the risk of the project not materialising was perceived as significantly less that for private initiatives. It was understood that these arrangement were still under development and therefore they were not explored in more depth by the Workgroup.

Interaction with Strategic Investment

5.106 The Workgroup noted that there was an interaction with strategic transmission investment, either anticipatory investment or future proofing by the TOs. Concern was expressed that current generators should not be exposed to the costs of providing access to future generators.

6 Initial Options for Workgroup Alternatives

Introduction

6.1 This section of the report describes the options for possible alternative Workgroup Modification Proposals that were considered during the Workgroup consultation stage. The aim was to keep the number of alternatives to a minimum, but this approach was complicated by an earlier Ofgem decision on User Commitment, as explained below.

6.2 The final alternative Workgroup Modification Proposals that are being put forward are discussed in more detail in Section 10.

Background (Ofgem Precedent)

6.3 As mentioned above, there is an earlier Ofgem decision on the subject of User Commitment. In 2006 National Grid raised Modification Proposal CAP131 which was, together with its alternatives, rejected in 2008 by Ofgem on the grounds of possible discrimination between pre- and post-commissioning generators. The outstanding question for the CMP192 Workgroup is how Ofgem's CAP131 precedent should be taken into account when considering possible Workgroup alternatives.

6.4 As described in section 5 of this report, the majority of the Workgroup does not support the arguments put forward by Ofgem in its CAP131 decision document and believe that pre- and post-commissioning generators can be treated differently. It should be noted that the CMP192 original proposal raised by National Grid is in line with Ofgem's decision, broadly based on the premise that pre- and post-commissioning generators should be treated the same.

6.5 Ofgem's CAP131 decision was taken in 2008, almost 3 years ago, and since then a new transmission access regime (Connect & Manage) has been implemented by DECC to enable new generation to connect more quickly, thereby removing a key barrier to new renewable generation, which is key in meeting the UK's climate change and renewable energy targets. In light of this, the Workgroup requested further clarification from Ofgem on its CAP131 decision. A change in Ofgem's view could mean that there is no longer a need for certain possible CMP192 alternatives, which could result in a more efficient modification process.

6.6 The outcome of the meeting with Ofgem and three Workgroup members was, in short, that Ofgem stands by its CAP131 decision, despite the fact that the majority of the industry does not support it. Ofgem's view remains that the difference in treatment between pre- and post-commissioning generators was not justified by the industry when Ofgem took its CAP131 decision. However, this is not to say that further arguments cannot be put forward by the Workgroup, according to Ofgem

6.7 The issue for the CMP192 Workgroup is that in 2008 the relevant arguments were put forward by the industry, but some members of the Workgroup believe that they have not necessarily been addressed in the CAP131 Ofgem decision document. It is therefore unclear (i) whether there is any merit in putting alternatives forward for CMP192 that do not treat pre- and post-commissioning generators the same, (ii) what additional arguments can be put forward to treat pre- and post-commissioning generators differently, and (iii) whether there is any need for alternatives that do treat these generators the same.

6.8 Until this issue has been resolved, if at all, the Workgroup decided to include possible alternatives that treat pre- and post-commissioning generators both the same and differently. Responses to the Workgroup consultation contained views from respondents on the matters highlighted in this section.

Possible Alternative Approaches to CMP192 Original

6.9 During discussions of the original CMP192 proposal it became clear that some or the majority of Workgroup members preferred a different approach to various elements of the Original Proposal.

6.10 Prior to consultation, four main areas where Workgroup members considered a different approach compared to the original CMP192 proposal were:

- Wider liability and notice period – pre- and post-commissioning
- Attributable liability – pre-commissioning
- Sharing factor attributable works – pre-commissioning
- Security provision – pre-commissioning

6.11 An overview of the possible options for alternatives and a high-level description of the options are set out in the table and paragraphs below. It should be noted that not all possible alternatives were fully developed prior to the Workgroup consultation. In addition, Area 1 (wider liability and notice period for pre- and post-commissioning generators) included a number of options because of the outstanding issue with regards to discrimination, as mentioned above. The approach whereby pre- and post-commissioning generators are treated the same raised a number of complexities. As far as they have been discussed by the Workgroup prior to consultation, they have been included in this section.

Overview of possible alternatives by area

	Original	**Area 1 Wider liability and notice**	**Area 2 Attributable liability**	**Area 3 Sharing factor**	**Area 4 Security**
Wider Works					
PRE	**Notice**: 4 years **Liability**: • Profiled • CAPEX • 50% sharing	**Notice**: (a)2 years <u>or</u> (b)4 years (CMP192 original) **Liability**: (a)TNUoS <u>or</u> (b)CAPEX (CMP192 original)			
POST	**Notice**: 4 years **Liability**: • Profiled • CAPEX • 50% sharing	**Notice**: 2 years (existing arrangements) **Liability**: (a)TNUoS (existing arrangements) <u>or</u> (b)CAPEX (~CMP192 original)			

Attributable Works					
PRE	**Notice**: 4 years **Liability**: • Profiled • CAPEX • 100% (no sharing) • Non-refundable		**User choice**: CMP192 original (non-refundable) and cost-reflective Final Sums (refundable) (NB this option could be part of the original)	50% sharing factor for both wider and attributable works	
POST	None				
Security					
PRE	• > 4 yrs from commissioning: 1-3£/kW (100%) • ≤ 4 yrs from commissioning: 42% without consent and 10% with consent				• Financial close to reduce security to 0% and • Third party user commitment (e.g. Crown Estate) as substitute
POST	None				

Area 1 – Wider liability and notice period – pre- and post-commissioning

6.12 The main driver for change in this area is the treatment of post-commissioning generators. The original CMP192 proposal is, according to the Proposer, not about indemnification, but about timely signals that would help the transmission companies in making efficient network investment decisions. Under this CMP192 proposal post-commissioning generators are required to give 4 years' notice of TEC reduction and disconnection if they wish to avoid all liabilities. If the required notice is not given, post-commissioning generators would be liable for a charge based on the CAPEX methodology described in section 3.

6.13 As also discussed in section 4 of the report, some members of the Workgroup noted that this notice period takes little, if any, account of the level of information that post-commissioning generators can practically provide. It was argued that the decision to reduce TEC or disconnect is based on short-term factors, in particular expected future power prices and spreads. As there is no market beyond 1-2 years, some members of the Workgroup felt that, in practice, post-commissioning generators would only be able to give up to 1-2 years' notice of TEC reduction or disconnection.

6.14 A notice period of 4 years would, in the view of some of the Workgroup, not deliver the required transmission investment signal. Instead, it would be a disproportionate penalty or closure tax for existing generators. In addition, some Workgroup members believed that the introduction of this penalty could well result in existing generators exiting the market prematurely. This very much depends on the circumstances of the individual generator and as such the impact is difficult to quantify. However, some of the Workgroup felt it could be argued qualitatively that this would have a negative effect on competition and also security of supply. Some Workgroup members also noted that existing generators exiting the market prematurely could result in a loss of flexible plant at a time when, with the increase in intermittent generation (and possibly network congestion), demand for these generators is going up, but the

future of new-build flexible plant is uncertain (hence DECC's EMR White Paper capacity mechanism proposals).

6.15 Some members of the Workgroup suggested that the issue of timely transmission investment signals could be best addressed by improvements in the communication process for connections enabling a much closer working relationship between transmission companies and generators during new investment projects.

Possible alternatives

Notice period

6.16 Based on the arguments above, one potential alternative is no change to the existing notice period for post-commissioning generators (2 years, but also see "possible concerns" below). Depending on the view on discrimination, the notice period for pre-commissioning generators can either be 2 years or 4 years (CMP192 original).

6.17 If pre- and post-commissioning generators are considered the same class of generators, some Workgroup members believed that the same treatment (2 years' notice for both) could be justified by the qualitative argument that wider work assets are less likely to be re-used in (year-1 and -2) because of the costs and risks associated with the removal, than in (year-3 and -4).

Liability

6.18 For post-commissioning generators the current liability for not giving the required notice is based on TNUoS. The liability for pre- and post-commissioning generators under the original CMP192 proposal is based on TO CAPEX. Again, depending on the view on discrimination (and the view on the TO CAPEX methodology), both methodologies (TNUoS and TO CAPEX) could be used for pre- and post-commissioning generators.

In summary

6.19 Pre-commissioning generators:

- Notice period: 2 or 4 years (CMP192 original)
- Liability: 1 year TNUoS or TO CAPEX (methodology based on CMP192 original), with 2 different profiles, depending on the notice period:
  - 4 years' notice: 25% (year-4), 50% (year-3), 75% (year-3), 100% (year-1)
  - 2 years' notice: 50% (years-2), 100% (year-1)

6.20 Post-commissioning generators (noting that post-commissioning users are liable for the current year use of system charges):

- Notice period: existing (two years) arrangements
- Liability: 1 year TNUoS or TO CAPEX (methodology based on CMP192 original)

Possible concerns

6.21 Prior to the consultation, the Workgroup had not discussed the options mentioned above in detail. However, the following possible concerns (with the options noted above) were been raised by one or more Workgroup members:

6.22 The concept of a "notice period" does not seem to work for pre-commissioning generators. In practice developers just terminate their

project X years before the connection date with immediate notification to National Grid.

6.23 The existing notice period for post-commissioning generators is strictly speaking not 2 years, but 1 year and 5 days. This means that 2 years' notice for pre-commissioning does not exactly mirror the post-commissioning notice period. However, a Workgroup member argued that a post-commissioning generator can give notice at any point in the 2 year before TEC reduction or disconnection to avoid the TEC reduction charge and in that respect it was similar to the 2 years' notice period for pre-commissioning generators.

6.24 Under the option of 2 years' notice for both pre- and post-commissioning generators, the 2 year liability profile for pre-commissioning generators (50/100%) does not apply to post-commissioning generators. This means that strictly speaking these arrangements are not the same.

6.25 If under the option of 2 years' notice for both pre- and post-commissioning generators, the liability is based on TNUoS, then different TNUoS charges will need to be used for pre- and post-commissioning generators. As there is a split between attributable and wider works, for pre-commissioning it will be the wider TNUoS tariff and post-commissioning the local + wider TNUoS tariff.

Area 2 – Attributable liability – pre-commissioning

6.26 Under the CMP192 proposal pre-commissioning generators, upon signing of their project connection offer, are liable for £1/kW which increases annually by £1 (capped at £3) until 4 years prior to commissioning (not linked to either attributable or wider works on the transmission system). Four years before commissioning, pre-commissioning generators are liable for a proportion of the estimated actual costs of their attributable works which is fixed and non-refundable.

6.27 The Workgroup (unanimously) believes that pre-commissioning generators should have a choice between a non-refundable and refundable user commitment methodology. Different developers have different appetite for risk depending on their project and the development stage it is in. The Workgroup noted that customer choice is currently on offer under the existing (baseline) arrangements: cost reflective Final Sums (refundable) and Interim Generic User Commitment Methodology (IGUCM) (non-refundable).

<u>Possible alternative</u>

6.28 The CMP192 original does not rule out a refundable methodology and therefore a choice can still be included in the original proposal. The Workgroup discussed the existing cost-reflective Final Sums arrangements and believed this to be the most straightforward choice for a refundable option. For pre-commissioning generators the choice for attributable works would therefore be: (i) original CMP192 (non-refundable) or (ii) cost-reflective Final Sums (refundable).

6.29 It should be noted that some Workgroup members expressed an interest in a refundable version of the original CMP192 proposal whereby the liability is fixed at the point of signing of the connection offer, but does not materialise if the transmission companies have not spent any money when the project terminates. Other Workgroup members questioned whether a choice between cost-reflective Final Sums (refundable) and non-refundable methodology based on a TNUoS multiplier (similar to IGUCM), might be a better approach. As this approach would be similar to the

existing arrangements, the question was raised whether keeping the existing arrangements should be considered as a possible alternative (see also last question in this section).

6.30 Finally, the Workgroup discussed whether pre-commissioning generators should be able to switch methodologies during the construction process. The majority of the Workgroup were of the view that, similar to the current IGUCM, the pre-commissioning generator should be able to choose at the point of signing their project connection offer, and then have a further one-off opportunity to switch from the refundable to the non-refundable user commitment methodology.

Area 3 – Sharing factor attributable works – pre-commissioning

6.31 The current user commitment arrangements offer pre-commissioning generators a choice between a refundable (Final Sums) and non-refundable user commitment methodology (Interim Generic User Commitment Methodology (IGUCM)), as mentioned above. Under IGUCM the liability for wider and attributable works is 50/50% shared between pre-commissioning generators and consumers. In contrast, the original CMP192 proposal (non-refundable) does not include a sharing factor for attributable works (the liability is 100% on pre-commissioning generators), only for wider works.

6.32 A Workgroup member argued that this approach could provide an unreasonable barrier to entry for new entrants, in particular for generators on Islands and offshore generators as their connection to the onshore transmission system is classified as attributable works under the original CMP192 proposal (and the current user commitment arrangements).

Possible alternative

6.33 An alternative proposal would be to apply the 50/50% sharing factor to both wider and attributable works.

Justification

6.34 The Workgroup member believed that 'Attributable' works begin to look like 'Wider' when they connect more than one generator and where they share with demand. Some Attributable works, once completed, may then become 'Wider' for later connections since they may constitute a node with more than 4 transmission circuits or a GSP with at least 2 transmission circuits. The member considered it difficult to understand in these cases how a new entrant triggering a reinforcement of the UK grid leading to an extension of the MITS should be treated differently to a party connecting to an existing MITS node.

6.35 The member also considered that sharing of 'Attributable' assets with consumers reduces the risk of asset stranding, should one of the generation parties fail to complete its project. Additionally, on islands where there is demand and no cable link (such as Shetland) new, Attributable connections would remove the need to use the existing diesel, thereby giving a more secure supply to demand and reducing CO2 emissions. Some allowance would need to be made for stand-by, for the diesel Power Station.

6.36 The member noted that, in not seeking to differentiate Attributable works, the alternative would include a proportion of Sole user assets which would be shared with consumers 50/50. The following table was provided by National Grid during the Workgroup, and shows the part of CapEx

attributable to 'Attributable' works, which equates to about 1/3 of total CapEx spend on the system, before revision due to asset re-use.

£M	2011	
Interim Arrangements for pre-commissioning users	Final Sums	285
	IGUCM	225
	Total	**510**
Estimate of CMP192 original for pre-commissioning users	Attributable	420
	Wider	43
	Total	**463**

6.37 The member noted that some new generation will have a higher proportion of Wider compared to Attributable works and thus associated forecast CapEx liability, whilst others will have a very high Attributable to Wider proportion. For one Scottish Island group in particular this would be in excess of 23:1 (compared with 15:1 under the interim IGUCM). This should be compared to the typical proportion in England and Wales of less then 5:1, and in many cases would be even lower at about 2:1.

Area 4 – Security provision Pre-Commissioning

6.38 A Workgroup member raised two issues relating to security provision with the original CMP192 proposal and has put forward two possible alternative proposals to address these issues, as described below.

6.39 The first issue is that under the Proposal the requirement to provide security only disappears at point of commissioning. The Workgroup member argued, however, that that the real risk of stranded transmission assets posed by pre-commissioning Users can be comparable to that of new post-commissioning Users (i.e. recently commissioning generators), as also highlighted in Ofgem's CAP131 decision[32]. The Workgroup member believes this is the case for pre-commissioning generators with financial close and therefore the level of security should at that point reduce to zero and not at the point of financial close.

6.40 The second issue raised by the Workgroup member is that the original CMP192 proposal, although about demonstrating user commitment and not about indemnification, does not take into account any user commitment provided to third parties, for example the Crown Estate for offshore projects. The Workgroup member argued that these monetary commitments could perhaps be used to offset the CUSC security and liability obligations; although it was accepted by the Workgroup member that National Grid could not draw upon any user commitment provided to a third party; such as the Crown Estate; to pay any (CUSC) user commitment liabilities or securities that fall due.

[32] Ofgem highlighted this issue in its CAP 131 decision when it said "Given the substantially different economics of renewable generation plant (very low marginal cost once constructed and substantial financial support from the ROC mechanism), there is an argument that those already with planning consent and finance in place are significantly lower risk than some existing generators (especially those that are close to the end of their planned life such as certain nuclear stations or are under restricted operating hours under environmental legislation such as the Large Combustion Plant Directive (LCPD)), and are therefore less likely to terminate and potentially strand transmission assets. As a consequence, there is an argument that these new generators should be required to provide the same or less security than existing generators to avoid any undue discrimination."

Possible alternatives

(1) Financial close to reduce liability and security to zero

6.41 This potential alternative seeks to address the first issue such that pre-commissioning Users would be treated as having the same risk of cancellation as new post-commissioning Users, once they can demonstrate they have reached the "financial close" stage as defined below.

6.42 A clear definition of financial close definition of the term "financial close" will need to be made. For example, the following definition could be used for offshore wind (similar definitions will need to be defined for other technology types). An offshore wind project is deemed to reach "financial close" when it has achieved the following two criteria:

1) Binding contracts for turbines, and
2) Either:
   - evidence of financing through to commissioning through any combination of debt or equity (balance sheet, project finance, etc), or
   - binding contracts for three other key components: foundations, transformer/substation, inter-array cabling

Justification

6.43 The justification for the treatment of post-commissioning Users in this proposed way is that they have generation assets in the ground that will always be of value, regardless of the owner. This is also the case for projects once financial close has been reached.

6.44 The Workgroup member is not aware of a pre-commissioning project that has reached financial close and subsequently not been commissioned. The worst case is where such a project is delayed. There is precedence for this definition of Financial Close being used to demonstrate user commitment in the case of German offshore wind.

(2) Offsetting the CUSC User Commitment

6.45 This potential alternative is that a Power Station developer makes substantive monetary commitments to its project which tie it to the site. This is quantifiable and demonstrable. The Workgroup member would be interested to explore whether this can be used to offset the security and liability arising from the (CUSC) User Commitment.

6.46 Specifically, that pre-commissioning Users be permitted to use user commitment other than to National Grid in place of security otherwise calculated under the (CUSC) user commitment rules. This can be demonstrated two ways:

1) "sunk costs" spent on the project where the value created cannot be transferred to other projects. Examples could include grid application fees, site specific development costs such as environmental studies, site investigation, etc
2) User commitment provided to other parties such as the landlord (e.g. the Crown Estate for offshore) where it can be demonstrated that the developer will be liable for a quantifiable sum should the project be terminated pre-commissioning.

Justification

6.47 One of the main objectives of CMP192 is that Users show credible commitment to their project, not necessarily that they provide complete indemnification for any transmission investment. The activities listed above are demonstrable and quantifiable examples of user commitment.

6.48 This would expose the end consumer to additional risk than the CMP192 proposal in the case where two conditions are met:

1) a developer terminates the project
2) National Grid is unable to recover the total liability from the developer.

6.49 This risk is however needs to be balanced against the improved information flows between the developer and National Grid, giving National Grid information that will enhance its ability to plan the network. A 'lighter touch' approach has been proven to be more effective than penal financial and legal measures in this context. For example National Grid has not used its CAP 150 powers to reduce TEC, preferring instead to enhance dialogue with developers to elicit the information it needs.

Keeping the existing arrangements

6.50 Finally, as mentioned above under Area 2, some Workgroup members questioned whether the best approach would be to keep the existing arrangements for both pre- and post-commissioning generators as their preferred options are not too dissimilar to these arrangements. This alternative would be better than the baseline because the arrangements would be enshrined in the CUSC. In addition, it would avoid complicated transitional issues.

6.51 Some Workgroup members argued that in that case the existing arrangements would have to be amended by (i) adding a generic wider works element (TNUoS/TO CAPEX based) to the cost-reflective Final Sums methodology so that liability for wider works on the transmission system is shared between Users and (ii) by reducing the IGUCM TNUoS multiplier to better take account of transmission asset re-use, derogated boundaries, strategic investment etc.

7 Impact and Assessment

Impact on the CUSC

7.1 CMP192 suggests the inclusion of a new section or schedule to be added to the CUSC which will contain the calculation and processes applying to the derivation of what has been previously referred to as “Final Sums” and “IGUCM” for new generators and will define the ongoing user commitment of existing generators to incentivise early notification, by those generators, of their reductions in TEC capacity.

7.2 In addition CMP192 may require Modifications to the following sections of the CUSC:

- Section 2.14 – Connection Charges
- Section 3.9.1 – Use of System Charges
- Section 6.6 – Payment
- Section 6.30.1 – Decrease in Transmission Entry Capacity
- Section 6.30.2 – Increase in Transmission Entry Capacity
- Schedule 2 Exhibit 1 – Bilateral Connection Agreement
- Schedule 2 Exhibit 3 – Construction Agreement and Offshore Construction Agreement

7.3 The legal text required to give effect to the Original proposal and the Workgroup Alternative CUSC Modification proposals is published on the CMP192 section of the Code Administrator website:

http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandinggroups/wg/CMP192/index.htm

Impact on Greenhouse Gas Emissions

7.4 The Workgroup discussed the need for an environmental impact assessment as part of the Workgroup consultation. It was noted that this had been raised by the Proposer and suggested that if the impact is deemed not to be material, then on the basis of being economic and efficient the Workgroup would not undertake an impact assessment. However, it was commented that if the impact was considered material then it could be a substantial piece of work.

7.5 A Workgroup member noted the work in this area that was completed by external consultants as part of the recent (BSC) P229 zonal losses proposal. That piece of work took a significant period of time to commission, complete and review (by the Workgroup). It was recognised that the Workgroup need to be aware of the work that may be required, and therefore consideration needs to be given as to how the work is carried out and the effect it may have on the timetable.

7.6 The Workgroup considered all the consultation responses that had provided views on this issue, and came to the majority view that the proposal would not have a material impact on greenhouse gas emissions.

Impact on Core Industry Documents

7.7 CMP192 has an impact upon the System Operator –Transmission Owner Code (STC). This is because changing the user commitment regime for generators is expected to provide more information that will need to be

shared with TOs under the STC. National Grid will pursue these changes when the original and alternative proposals have been fully established.

7.8 In order to not delay implementation National Grid proposes to use best forecast information for the purposes of establishing liabilities. This is consistent with the approach adopted at BETTA.

7.9 There will also be an impact on the Transmission Licence. National Grid as National Electricity Transmission System Operator (NETSO) secures transmission works on behalf of all TOs. Both the arrangements in the CUSC and the revenue restrictions in the Transmission Licences should be consistent with those in the CUSC and bilateral agreements. Therefore any change to the user commitment liabilities and security arrangements in the CUSC and associated agreements could have a consequential impact.

Impact on other Industry Documents

7.10 Neither National Grid nor the Workgroup identified any impacts on other Industry Documents.

Assessment against Applicable CUSC Objectives

7.11 The Workgroup voted on whether the Original and Alternative Proposals (see Section 10) better facilitated the Applicable CUSC objectives. For reference the CUSC Objectives are:

(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and

(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.

7.12 The results of the vote indicated that the majority of the Workgroup believed that each of the twelve WACMs better facilitated at least one of the applicable CUSC objectives. Some members of the Workgroup believed that the Original better facilitated one or more of the objectives, but this did not receive majority support.

7.13 Of the twelve, no single WACM received majority support as best facilitating the Applicable Objectives. The proposal that had the most support was WACM 8, which received five votes out of a possible fourteen.

8 Proposed Implementation and Transition

Implementation & Transitional Arrangements

8.1 The Workgroup discussed how CMP192 could be brought into effect in the CUSC. Given the wider concern about stability of arrangements the Workgroup agreed that it was import that CMP192 was implemented in a manner that allowed Generators to effectively manage their commercial positions, mindful of the need to protect end consumers.

8.2 There was general support for bringing CMP192 in to effect using a transition period. This would allow the transmission companies sufficient time to draft agreement changes, discuss and agree them with Generators (and DNO's in the case of embedded generation), and then for affected parties to manage the changes efficiently.

8.3 The Workgroup agreed that under the CMP192 original the change in notice duration from 2 years to 4 years for post-commissioning users could have an impact on Users commercial and strategic positions. Introducing arrangements that had insufficient time for such discussions to take place would have a negative impact on end consumers and undermine confidence in the GB regime.

8.4 The transitional period would also be required to facilitate the change in contractual positions, in particular the construction agreements (which specify underwriting arrangements) for pre commissioning users. This is in line with good industry practice, reflecting the approach used by DECC for introducing the enduring Connect and Manage regime and also Ofgem /DTI in introducing BETTA.

8.5 National Grid provided some initial thoughts on implementation and transition for CMP192. Implementation involves the change being implemented in the CUSC. There can be a transitional phase after implementation, if written into the modification.

8.6 It was noted that implementing a modification in the CUSC was largely an administrative exercise and is usually achieved 10 business days after an Authority decision (unless, for example, IT system changes are required). National Grid at this stage did not expect a significant impact on central IS systems. The Workgroup proposes that CMP192 should be implemented in the CUSC 10 days after an Authority decision. This first stage would involve changing the text in the CUSC and describing how the changes would then come into effect during the transition process. Views on this proposed implementation date of 10 days and also the transition process were sought from respondents during the Workgroup consultation.

8.7 The Workgroup were concerned that the extended period of liability associated with CMP192 Original could bring about the early closure of older thermal plant. In particular those LCPD opt out and Magnox plant nearing the end of the operational lives would find it difficult to give four year notice. As the principle of the methodology was to provide information to the TOs the Workgroup believed that providing such plant gave a firm closure data that it would not be unreasonable for them to have the option to remain on current arrangements until March 2016.

8.8 It was also recognised that transmission companies would more than likely be excluding this plant from future investments backgrounds. Whilst this plant could be replaced on site and TEC transferred within the timescales for transition, the transmission companies should have this information.

This approach would allow older thermal plant to efficiently manage leaving the system without creating a security of supply risk. To avoid discrimination it was suggested that the option to leave should not be exclusively available to a particular category of plant i.e. all generators would have the option to leave the system under the same arrangements.

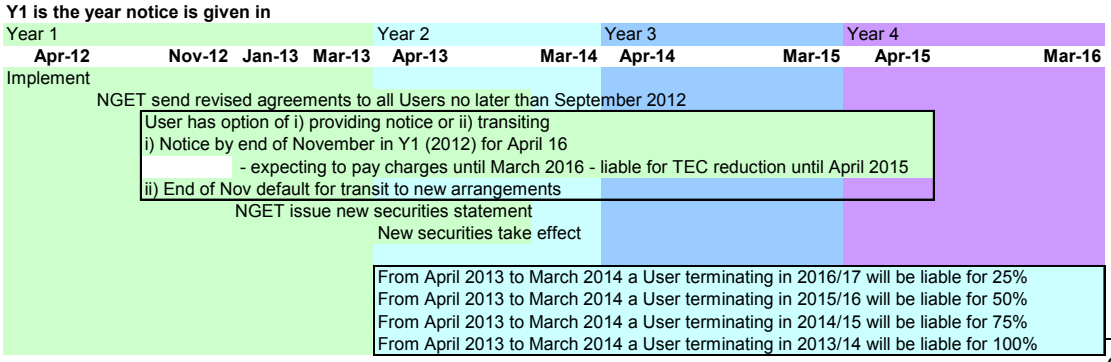
8.9 It was noted that implementing a modification in the CUSC was largely an administrative exercise and is usually achieved 10 business days after an Authority decision (unless, for example, IT system changes are required). The Workgroup Chairman advised that transition relates to the process of the new obligations coming into effect and taking account of the implications on the wider market. The Workgroup considered the main principles with regard to transition for CMP192 and the contractual aspects, in particular that sufficient time is allowed to consider implementation, transparency and the ability to exist on current terms.

8.10 National Grid advised that a transition period of 6 months to 1 year was in keeping with industry practice adopted under BETTA and Connect and Manage. Based on this National Grid proposed a transition process of:

- 3 to 6 months to amend agreements, with notice to generators not later than end of September 2012 (based on an implementation in April 2012)
- Generators would then have until November 2012 to query the agreements and consider their commercial positions
- The closure notice date could run up to March 2016
    - By providing notice up to March 2016 users would remain on the current arrangements
- If the notice provided by November 2012 was applicable after 2016 or no notice was given the users would transfer to the new arrangements from April 2013
- New arrangements would become applicable from April 2013, with the security amounts applicable from April 2013 being notified in January 2013

8.11 The Workgroup discussed what transition should be if the Authority decision was for timescales other than implementation in April 2012. In this case the proposed arrangements would effectively be 'knocked on' by a 6 month period. This is consistent with the timings for posting securities in the CUSC currently.

8.12 An example timeline of this proposed transition period is shown below based on implementation in April 2012:



8.13 A sub-group reviewed how this would apply to pre-commissioning generators at different stages of agreement. It was understood that projects nearing commission would be unlikely to terminate. National Grid

suggested that post implementation CMP192 would be applicable to all new signed contracts from April 2013. For example:

Signed offers: remain on current arrangements until April 2013, then would receive agreement changes based on the above timescales.

Unsigned offers ('offers on the table'): the underwriting arrangement is open until signature, these offers are still applicable and they are then transited as per signed offers above. It was understood that this was consistent with the implementation of Connect and Manage. Where practical, and on the understanding that the Authority has approved the underlying principles, National Grid will seek to transit unsigned offers to the new arrangements.

Existing applications: offers would be sent on the existing arrangements and revised offers would be sent consistent with the timescales above i.e. by end of September 2012. If signed between September 2012 and March 2013, the existing arrangements would be applied until April 2013.

8.14 For signed offers, the Workgroup considered that offers should be 'appealable' at agreement to vary stage. National Grid noted that the agreements permitted National Grid to vary them consistent with a change to the CUSC. Therefore an appeal would be limited to that the variation was not consistent with new CUSC arrangements, rather than the Authority's direction to change the CUSC (which has a separate appeals arrangement).

8.15 In the period until April 2013 all affected parties would remain on current arrangements on the assumption that Ofgem extend the comfort provided under the current interim arrangements.

9 Workgroup Consultation and Further Discussion

9.1 The Workgroup sought 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 detailed below. The consultation period was open for four weeks, between 19th July and 16th August, and 20 responses were received along with 3 late responses. The Workgroup decided to include the late responses in the review as if they had been received on time. The responses received to the consultation are contained in Volume 2 of the Workgroup Report.

9.2 In accordance with Section 8 of the CUSC, CUSC Parties, BSC Parties and the National Consumer Council may raise a Workgroup Consultation Alternative Request. Through the Workgroup consultation, 9 such Alternative Requests were received. These requests, along with the Alternative options set out in Section 6, were further discussed by the Workgroup and form the basis for the final Modification Alternatives set out in Section 10. The full Workgroup Consultation Alternative Requests are contained in Volume 2 of the Workgroup Report.

9.3 The Workgroup went through each question posed in the consultation and considered each response and any wider issues brought forward. On each of the key issues or alternative views the Workgroup considered the merits of the arguments put forward in order to consider how this affected the Original or any of the draft alternatives (raised by the Workgroup or those raised during the Workgroup Consultation).

Technical Questions

Q1: Do you agree with the sharing factors of 50/50 for wider works and 0/100 for attributable works (consumers/generators), and what is the reason for your position?

9.4 There was significant support for 50/50 sharing for wider works. A number of respondents suggested that the charging 27/73 split could be used; others also suggested 0/100 (all risk on consumers) was equally valid. It was noted that the link of 27/73 is based on the charging revenue split (TNUoS), and therefore a change to this split in the charging regime (e.g. through TransmiT) would carry through to User commitment liabilities.

9.5 Having reviewed the issues raised in the responses the majority of the Workgroup voted for wider 50/50. A minority of the Workgroup also supported a 27/73 split. One Workgroup member also supported a 0/100 split (all risk on consumers).

9.6 Within the responses there was also strong support for a reduced attributable sharing liability where there were multiple Users (either generation or demand). The majority of Workgroup members supported this view, i.e. classifying some attributable works as 'sharable' and having some form of sharing factor, possibly 50/50. The Workgroup agreed to consider this issue in the development of an alternative, noting the similarities to a Workgroup draft alternative and also to a number of the requests for alternatives arising from the consultation.

9.7 A number of respondents called for removal of all liabilities, including attributable. The Workgroup unanimously supported generators retaining

100 percent liability for attributable works driven solely by that generator and unlikely to be shared in the future (sole use assets).

Q2: What period of notice do you consider to be the most appropriate for both pre- and post-commissioning, and what is the justification for your view?

9.8 The table below shows a straw poll of support for each of the options expressed by respondents and Workgroup members who have not responded.

(Votes in Favour)	Wider		Attributable
Notice period (years)	Pre Comm	Post Comm	Pre Comm
0	1	-	-
2	2	9	-
3	4	2	2
4	6	3	3
Specific	1	-	7

Note: a two year notice period would be reflected (in the CUSC) as 1 year and 5 days a three years notice period as 2 years and 5 days and a four year notice period as 3 years and 5 days, and so on.

9.9 By a majority the Workgroup and respondents supported a notice period of 4 years for wider pre commissioning and 2 years for post commissioning (i.e. retaining the status quo for post commissioning). The main arguments given for this in the responses were mainly those already included in the consultation report. The issues of potential discrimination are discussed under question 5 below.

9.10 For attributable there was some support for the generic notice period of either 2 or 4 years. However noting concerns regarding the more acute impact attributable works have on projects, there was a majority support from respondents for the development of a specific option for attributable works. This view was also supported by the majority of the Workgroup.

9.11 Given the level of support and the arguments put forwards about providing an option for both a generic and specific arrangement for attributable works, the Workgroup unanimously agreed that this should be included in the Original and would also be further discussed under the Alternatives. The Workgroup also agreed that providing such an option would be limited in that once a generator opted for generic it could not return to specific. The arguments supporting this restriction are discussed previously in the report, with support expressed in a number of responses.

Q3: Do you agree with the percentages used within the notice period, and what is the reason for your position?

9.12 There was majority support from respondents who replied on this issue that 25%, 50%, 75% and 100% appeared appropriate. The Workgroup discussed that under an alternative notice period it would seem reasonable to keep a linear approach, e.g. for 3 years use 33%, 67% and 100%.

9.13 One respondent suggested that for two years that both should be at 100%, which would be similar to the current arrangements. It was noted that in previous discussion on this issue many in the Workgroup supported a slope as this encouraged early notification.

9.14 A minority of respondents suggested a more ‘S curve’ type of approach e.g. 20%, 50%, 80% and 100%. The justification was that these better

reflected generator projects spend. National Grid noted that the profile presented in the original was based on a significant number of transmission projects rather than a generation project. It was questioned if this data could be broken down into attributable and wider. Whilst this may be possible, National Grid noted that this would take time. The Workgroup noted this.

9.15 The Workgroup agreed to discuss under the alternatives whether two years should be both 100% or a profile of 50% and 100% should be used. The Workgroup agreed that using an S curve on generation project spend was not appropriate and generally supported the linear approach.

9.16 The Workgroup also discussed how often this profile could be updated as new data became available. National Grid noted that it had an implicit duty to keep the CUSC up-to-date and therefore it would review the profile periodically. Concern was noted that a change could have a significant impact on project financing. It was noted that as the profile was 'hard coded' in to the CUSC any change would need to be progressed through a formal CUSC modification proposal. The Workgroup were generally comfortable for National Grid to periodically review the data and bring forward CUSC proposals either at each price control or mid price control. Any issues on project financing could then be discussed at that time.

Q4: Are there any further implications of project slippage that should be considered?

9.17 Respondents generally supported the proposed original approach in dealing with slippage. Some of the support was based on the assumption that final sums would be an option for attributable works (confirmed previously). This issue also related to TEC reduction and it was noted that Final Sums with reconciliation allowed parties to better manage the possibility of TEC reduction in the design phase.

9.18 A number of other concerns were raised, but it was noted that these were covered by requests for Alternatives and the issues would be addressed under those discussions.

Q5: Do you agree that different treatment of security for pre- and post commissioning generators is justified, and what is the reason for your position?

9.19 The majority of respondent considered that pre and post commissioning generators presented different risks and were at different stages in their plant life cycle.

9.20 One respondent suggested that after financial close pre commissioning generators effectively presented the same risk as post commissioning generators and therefore should not post security. The Workgroup noted the link to previously discussed alternatives.

9.21 One respondent suggested that for wider works, with a notice period of two years, neither pre nor post commissioning generation should need to post security.

Q6: Do you agree with the assessment of securities for pre commissioning users, and if not how they should be determined?

9.22 There was broad support for the assessment in the consultation. However a number of respondents indicated concern about the calculation methodology, although no alternative methodologies were offered.

9.23 The concept of financial close as a milestone for security was noted in a number of responses. The Workgroup agreed to consider this in the discussion on Alternatives.

Q7: Do you agree that post-commissioning users should not put up security against their user commitment liabilities, and what is the reason for your position?

9.24 All apart from one respondent on this issue support the proposal as outlined in the report. One noted that liability itself is a significant burden and security would just add to this.

9.25 The alternative view presented in one response was that different treatment of post commissioning could have a negative impact on competition. The Workgroup unanimously disagreed with this view for the reasons set out in the report.

Q8: Do you agree with the assessment of security implications detailed in this section, and what is the reason for your position?

9.26 There was broad support for the assessment in the consultation. However a number of respondents suggested that the risk for small parties was greater than had been modelled. It was noted that this was based on published data and no further specific numbers had been presented. Ofgem noted that parties could submit confidential data to them for assessment alongside the consultation.

Q9: Do you agree with the process for apportioning Attributable VAR, and what is the reason for your position?

9.27 There was general support for the consultation proposal, although concern was expressed about the potential for volatility. It was noted that this was highlighted in the report and is a feature of a more specific methodology. One Workgroup member suggested that the principle was reasonably robust and that if volatility did prove to be a more significant issue than expected this could be a possible future refinement.

9.28 It was also noted that National Grid had been seeking to improve bilateral discussions with developers and that more information e.g. project milestones highlighting changes, should help developers predict future changes.

9.29 The Workgroup noted the further comments on sharable works and agreed to consider these in discussion on alternatives. The Workgroup noted the interaction with optionality and agreed these had been previously covered.

Q10: Do you agree with using the boundary method for apportioning wider VAR, and what is the reason for your position?

9.30 There was broad support for the proposed methodology. Whilst some issues were noted no alternative had been presented. The main issue was in relation to the signal provided to southern generation in importing zones. The Workgroup noted that this was a result of the CAPEX methodology and no alternative had been brought forward.

9.31 Volatility was suggested as a possible issue, however this has been covered in the report and the Workgroup believed that the analysis presented did not suggest it would be a major issue. The Workgroup were comfortable with the principle and agreed that volatility should be

monitored post implementation and could form the basis of a future refinement if it indeed presented a problem.

Q11: Do you agree with the approach to capacity sharing, and what is the reason for your position?

9.32 There was general agreement from respondents to the proposed treatment. One respondent suggest a more complex option could be used. No significant new evidence in support of the more complex option was presented. The majority of the Workgroup did not support the more complex option for the reasons outlined in the report. It was noted that the Workgroup had previously spend considerable time investigating these options and the pros and cons with each.

Q12: Do you agree that a linear compliance factor is appropriate to account for the implications of DECC's Connect & Manage decision, and what is the reason for your position?

9.33 There was general support for the process proposed, although two responses suggested that the proposal was possibly an over-simplification of the interaction between current and future generation and transmission capacity. The Workgroup noted previous discussion on this issue and confirmed support for the simpler option described in the report. The Workgroup supported the principle of including compliance and the simpler option achieved this. It was suggested that a more complex option could be considered in the future.

Q13: Do you agree with the analysis of wider asset reuse, and what is the reason for your position?

9.34 There was majority support for the analysis, however some parties noted that this was a transmission focused issue and little information was available to allow alternative view to be offered.

9.35 As with the period discussion it was suggested that the same approach could be adopted for reviewing the factor. It was agreed that the global asset reuse factor (GARF) should be 'hard coded' in the CUSC to minimise the potential for volatility. It was also noted that in the absence of specific information National Grid would used the generic wider figure. The Workgroup agreed with this approach.

Q14: Do you agree with a more specific process to asset reuse for attributable works, and how do you think this should be achieved?

9.36 There was general support for the proposed process. One respondent suggested an improvement would be to have specific asset reuse factors for different asset types, however the Workgroup agreed that this was already allowed for in the Original.

Q15: Which definition do you believe should be used for attributable generator works, and why?

9.37 There was broad support from the majority of respondents for using the charging definition. A number of issues were highlighted however the Workgroup agreed this could be addressed through discussion on 'shareability' on the alternatives.

Q16: Do you consider the offshore arrangements for attributable to be suitable, and are there any discrimination issues with onshore?

9.38 There were a number of responses that suggested that this could be an issue. Generally the Workgroup believed the process was robust and that offshore presented some specific issues. For the avoidance of doubt the Workgroup did not believe that the original proposal was discriminatory. However the Workgroup considered that extension of the principles discussed for offshore could be beneficial to other Users with slightly different specific issues. The Workgroup also believed this could be addressed through slightly different treatment of sharable attributable works.

Broader Policy Questions

Q17: Do you believe that treating pre-commissioning and post commissioning users differently for user commitment is due or undue discrimination, and what is the reason for your position?

9.39 A significant majority of respondents supported the different treatment of pre commissioning users and post commissioning users as either 'no discrimination' or 'due discrimination'. One party indicated that different treatment was 'undue discrimination'. One respondent indicated their support for different treatment subject to the exact solution. Another respondent indicated support for no difference depending on the solution. This respondent was keen to ensure that at least one alternative was presented to the Authority with no possible discrimination, due or otherwise, based on their understanding of CAP131 rejection. This matches the view of the Workgroup, i.e. a majority believe that different treatment of pre and post commissioning generators is either not discriminatory or due discrimination. The reasons supporting these views are within the main body of the Workgroup report.

Q18: Do you consider that the aim of user commitment should be avoiding inefficient future investment or indemnifying historic investment, and what is the reason for your position?

9.40 The majority of the respondents and the Workgroup support user commitment providing a forward looking signal for TOs rather than seeking either full or partial cost recovery for 'sunk' assets.

Q19: Do you consider that the proposal will have an effect on security of supply, and if so why and how?

9.41 The majority of the respondents agreed with the majority of the Workgroup that CMP192 Original would be either detrimental or could be potentially detrimental to security of supply. The majority of the Workgroup believe that an alternative that avoids an increase from the current two years notice period for post commissioning generation would remove the risk or perceived risk to security of supply and, as a minimum, maintain the arrangements recently introduced by DECC. The Workgroup noted that one respondent indicated the need for a full quantitative Regulatory Impact Assessment by Ofgem on the proposals.

Q20: Do you believe that information should be provided either six-monthly or annually, and what is the reason for your position?

9.42 The majority of the respondents indicate that a six monthly statement of liabilities and securities, as under existing arrangements, would be beneficial. The majority of the Workgroup also agreed with this position.

Q21: What is your view of the impact of volatility on users?

9.43 The majority of respondents indicated that volatility of liabilities and financial security was a major issue for both pre and post commissioning generators. Any steps that limit volatility and improve predictability would be beneficial to the generation community. The Workgroup considered an alternative relating to fixing liabilities, reviewing the work already presented in the report. Following discussion the majority of the Workgroup supported an approach that fixing liabilities could be considered as a future refinement if volatility proved to be significant.

Q22: Are there any further interactions that the Workgroup have overlooked?

9.44 A number of issues were highlighted in the responses that the Workgroup considered further. One respondent indicated further consideration was required on the interaction of CMP192 with the Transmission Price Control, and another believed further consideration on the interaction with Project TransmiT. Both of these issues are highlighted in the Workgroup report. The general view of the Workgroup was that until either of these developed further the interaction could not be fully considered. The Workgroup considered that the majority of the analysis setting variables with in CMP192 would be robust for the next Transmission Price Control period (starting April 2013) and stability through maintaining these variables until at least 2018/19 (half way through the next Transmission Price Control period) would be beneficial.

Impact on distributed generation without a bilateral agreement

9.45 The Workgroup agreed that the Statement of Works process was outside the scope of CMP192. Other than the re-establishment of a signal for wider transmission works it was understood that CMP192 would be beneficial for most new distributed generation. However the Workgroup were concerned that DNOs may not replicate the lower security amounts proposed through CMP192 as projects progressed. The Workgroup also believed that the DNO / distributed generation relationship and commercial arrangements, including security arrangements, were outside of the vires of the CUSC, and thus not covered by CMP192. The general view was that distributed generation should raise the issue in the appropriate DNO forum, such as the Distribution Code / DCUSA.

9.46 A respondent suggested that the Workgroup could consider the interaction with new technology further, although recognised the time constraints placed on the Workgroup. The Workgroup generally believe that CMP192 should be technology neutral and any positive treatment for a particular class of generator was outside the remit of the CUSC.

9.47 One respondent queried how 'non-firm' connections would be treated under CMP192, in particular whether the 'trigger' would be four years before firm access or four years before physical connection under the 'non-firm' arrangements. It was confirmed by the Workgroup that the trigger would be the physical connection date, after this the generator would be treated as a post commissioning generator for the TEC associated with that phase of its project. This reflects the position that the generator has shown commitment in building and commissioning and at this point the risk of termination is similar to any other recent connection.

9.48 Two respondents requested more information on Transition. The Workgroup noted that the Workgroup report considered Transition in some detail, but also recognised that some flexibility would be required in the arrangements to allow the TOs, National Grid and Generators to smoothly introduce the arrangements. It is envisaged that upon a decision by the Authority (in the early part of 2012) National Grid would provide more

details (in spring of 2012) on the planned process for transition and providing updated liability and security estimates to Users (in the autumn of 2012).

Alternative Option Questions

Q23: With regards to wider works, do you believe that the notice period for pre-commissioning generators should be 2 or 4 years (or a different number). Please explain.

9.49 The responses to this Question were covered in Question 2 above by the Workgroup.

Q24: What should the liability profile for wider works be for pre commissioning generators? For example, assuming 2 years' notice, to you agree with 50% (year-2) and 100% (year-1)? Please explain.

9.50 The Workgroup considered responses to this Question alongside those for Question 3 above. The majority of respondents and the Workgroup supported a linear approach. The general reasoning was that this provided an additional incentive on generators to provide earlier notice to the TOs.

Q25: Do you believe that the liability for wider works should be based on TNUoS or CAPEX? Should pre-and post-commissioning generators be treated the same or differently? Please explain.

9.51 The majority of respondents and the Workgroup supported a CAPEX based methodology. Some members of the Workgroup members whilst supporting the CAPEX methodology as more theoretically correct felt that based on the analysis of the liabilities that the current TNUoS based liability was a reasonable proxy, with the additional advantage of stability of arrangements.

9.52 The issue of different treatment was covered under Question 17 above.

Q26: Do you believe pre-commissioning generators should have a choice between a refundable and non-refundable user commitment methodology? If yes, should that be a choice between CMP192 original (non-refundable) and cost-reflective Final Sums (refundable) or a different choice? Please explain.

9.53 There was significant support for a choice between refundable and non-refundable, noting in particular that at an earlier stage of project development, when the exact station (MW) capability had not been fully established, a refundable specific methodology was more suitable. Once a project had been firmed up then a generic refundable methodology was possibly a better option.

9.54 There was some debate in the Workgroup as to whether the £1/2/3/kW pre trigger amount would apply if a User opted for a final sums refundable approach. Some Workgroup members felt this was essential to allow early stage projects to evolve for the reasons noted above. It was also felt that this pre trigger amount might be outdated now that Connect and Manage had largely removed the queue for transmission access. The majority of the Workgroup agreed that the pre trigger amount still provided some assurance and should apply to all projects. However the Workgroup agreed to consider an alternative without this pre trigger amount for users opting for a specific refundable option.

Q27: Do you believe pre-commissioning generators should have the option to switch between methodologies (i.e. between a fixed, non reconcilable attributable liability and a variable, reconcilable attributable liability)? If yes, should that be one way or both ways? Please explain.

9.55 The majority of respondents supported the option to switch between methodologies, with a slight majority in favour of retaining a restriction of only specific to generic.

9.56 The Workgroup also agreed that a restriction on switching between methodologies should be retained as under the current interim arrangements (IGUCM / FSL), i.e. limited to switching to generic from specific. The majority of the Workgroup believed parties should have the option to switch either way but only once, however there was not majority support for taking it forward as a formal Alternative proposal.

9.57 One respondent suggested there should be a charge for switching, some members of the Workgroup also supported this view.

Q28: Do you believe a sharing factor should be applied to attributable works? If yes, would a 50/50% factor be the right balance between entry signal and risk? Please explain.

9.58 This was covered previously and the Workgroup agreed this should be considered as an alternative.

Q29: Do you believe that when pre-commissioning generators reach financial close (or a different project milestone), their security for attributable works should reduce to zero? Please explain.

9.59 Respondents were generally not in favour of this option on the basis that it could be difficult to defined what was 'financial close' and that this could be potentially 'game-able' as Users would have an incentive to claim to have reached 'financial close' in order to change their security requirements.

9.60 The majority of the Workgroup agreed with most of the respondents and did not support this option on the basis that it would be extremely difficult to define and could lead to uncertainty. Recognising the additional work this could entail the Workgroup believed this could possibly be a future refinement.

Q30: Do you believe that pre-commissioning generators should be able to offset the National Grid user commitment with monetary commitments to third parties, for example the Crown Estate? Please explain.

9.61 Respondents were generally in favour of this option on the basis that it reduced the level of securities, however there was some concern about how it could be defined.

9.62 The majority of the Workgroup did not support this option on the basis that it would be extremely difficult to define and put into effect. Recognising the additional work this could entail the Workgroup believed this could possibly be a future refinement.

Q31: Do you have any views on how that could be incorporated in the original CMP192 proposal (or any alternatives)?

9.63 On the basis of the Workgroup discussion above, and the lack of a robust proposal, this issue was not considered further by the Workgroup.

Q32: Do you believe that keeping the existing arrangements and/or amending the existing arrangements would be a viable alternative modification proposal? Please explain.

9.64 The majority of respondents did not support keeping the current arrangements as they are.

9.65 The majority of the Workgroup supported keeping the existing arrangements and codifying these in the CUSC. However, some members felt that IGUCM would need to be revisited without wider works and there was also merit in considering a revised securities policy that reduced security as projects neared completion.

Impact & Assessment Questions

Q33: Do you consider that the proposal would have a material impact on greenhouse gas emissions, and what is the reason for your position?

9.66 A slim majority of respondents indicated that CMP192 could have a material impact on greenhouse gas emissions.

9.67 Having considered the views and evidence in the responses, the Workgroup concluded that in the context of current wider policies (outside the CUSC), that whilst CMP192 may limit the overall risks and also possibly the cost of meeting emissions targets, it was not clear that it would have a material impact on greenhouse gas emissions.

9.68 In summary, the Workgroup did not support the view that CMP192, or any of the alternatives, would have a likely material impact on greenhouse gas emissions.

Further Workgroup Discussion

Embedded Generation

9.69 The Workgroup discussed the treatment of embedded generation in response to a consultation response that suggested that embedded had not been covered thoroughly in the consultation.

9.70 The Workgroup agreed that for pre-commissioning generation, it would seem logical for the DNO to be fully responsible for the liabilities for attributable and connection works to the transmission system. This reflects the contractual relationship that the embedded party had chosen with the DNO and that between the DNO and National Grid under the CUSC. It was noted that any transmission connection works would be generally unusable without the associated attributable works (i.e. those works to connect the connection works to the nearest MITS substation) and therefore it was more appropriate to deal with them in a single contract.

9.71 It was agreed that liabilities arising from transmission assets should not be any different for an embedded generator (through the DNO) or a directly contracted / connected generator (through the SO/TO), i.e. the same level of attributable and wider transmission works should be in the agreement with the DNO as what would have been for a direct (transmission) connection. Different treatment of parties other than for practical efficiency was outside the remit of the CUSC and potentially inconsistent with

Transmission Licence Condition C7 on discrimination. Therefore different treatment would be a regulatory / government policy decision.

9.72 The Workgroup discussed alignment of the agreements and it was noted that a BEGA provides for TEC, so automatically gives liability for wider works, but that the DNO Construction Agreement (ConSag) does not include the right to access to the transmission system, i.e. TEC. Therefore in the case of a BEGA, the wider liability would be passed through to the generator directly, however for non-BEGA parties the wider transmission works would be passed through the DNO based on the capacity given in the Statement of Works.

9.73 It was noted that if these transmission works were not passed through the DNO, the wider liability for directly (transmission) connected parties would be higher than for embedded parties of similar size and configuration, and that this was potentially discriminatory. It was clarified that the generic methodology calculation would need to include the volumes of both BELLA and Statement of Works contracts to avoid double counting. It was also noted that the effect of spreading the annual TO CapEx over a larger generation base would reduce the wider liabilities for all parties.

9.74 The Workgroup discussed the implications for the DNO and the embedded generator and generally agreed that it was a matter for the DNO and embedded generator how these transmission liabilities would be divided up and the level of financial securities required. However, some members of the Workgroup felt it was a matter for the CUSC as the Statement of Works process is defined in the CUSC. It was noted that the Statement of Works process is between the DNO and National Grid and therefore the proposed treatment was consistent with both this and the enduring contractual relationship.

9.75 The Workgroup recognised that the embedded generator would not necessarily benefit from the proposed CMP192 step down in transmission securities required closer to commissioning unless the DNO chose to reflect these in the securities it required from the generator. The Workgroup believed that the level of securities between the embedded generator and the DNO are clearly outside the CUSC, however the DNO could recognise the CMP192 arrangements in the CUSC and consider including these in DNO contracts. Given the lead time for implementation of CMP192 there was sufficient time for the DNOs to take forward similar proposals under the DCUSA, should they so wish.

9.76 Post commissioning the Workgroup recognised the more fundamental differences that currently existing in treatment of rights and obligations for embedded generation and did not consider these within scope of CMP192. Therefore on commissioning of the embedded generator the wider transmission liability would fall away consistent with these other rights and obligations. Post commissioning attributable works are not included within the CMP192 proposal so this would not represent any different treatment.

9.77 The Workgroup voted by a majority of 8 to 2 that all attributable / transmission connection works should go into the DNO Construction Agreement with wider transmission works associated with a BEGA passed directly to the BEGA signatory and the DNO in all other cases.

Definition of Attributable Works (ref. Section 4, paragraph 4.191 onwards)

9.78 One member of the Workgroup suggested that based on current agreements it appeared that onshore generators could potentially be exposed to 'deeper' transmission attributable works. This issue arises from previous discussion on situations where onshore wider works would

be potentially moved offshore (see Section 4 on attributable works for offshore). National Grid noted that under CMP192 the definition of attributable works was based on the charging definition of Local (CUSC Section 14), whereas under current arrangements this was linked to the TO interpretation of SQSS works as either SQSS Section 2 or 4 works.

9.79 The Workgroup agreed that there was potential for different treatment depending on the exact connection design. To avoid this the Workgroup agreed that attributable works should be defined consistently across all agreements. Therefore it was agreed that the MITS substation used to define attributable works liabilities should be the nearest 'reasonable' substation. This avoids, for both onshore and offshore, the possibility of connection being subject to increased attributable works liabilities as a result of wider efficiency decisions by the TO.

9.80 The Workgroup noted a concern about the term 'reasonable' but agreed that given the nature of design that each case would need to be considered individually. National Grid indicated that given the change to the definition of attributable works it was unlikely that this world impact on many connections and that only one onshore connection had currently been identified. It was also recognised that within the connection process the connectee has the potential to question the TO / SO interpretation and that this was likely to be only one of several issues potential connectees might query in post-offer discussion. As described in the offshore section this was similar to the process adopted for definition of enabling works under Connect and Manage.

Short Duration Agreements

9.81 The Workgroup noted that some agreements are offered in timescales of less than 4 years and discussed how the process would apply in these cases. In the Original proposal a connectee receives an estimate of the attributable works with their offer, and this is updated at 4 years 6 months prior to commissioning when the User may choose to switch onto generic attributable arrangements (i.e. fix the attributable TO CAPEX estimate and accept a generic profile) at that time. The User can switch to generic at any time after this on the current biannual estimate from the TO/ SO.

Phased and Non-Firm Connections

9.82 The Workgroup discussed how the new CMP192 arrangements would apply to phased projects and non firm connections.

9.83 In terms of attributable works liabilities these would remain on the original profile specified for a firm connection. The reason for this was that the attributable works were not expected to significantly change as a result of early connection and therefore the costs incurred by the TOs would be on the original forecast profile i.e. 100% attributable TO CAPEX would be incurred on the last year before firm connection was delivered. However, at the time of connection the generator would have demonstrated that it was committed to the project, by commissioning, and therefore attributable works would be treated as any other post commissioning generator.

9.84 Given the generic nature of wider works liabilities and recognising the Connect and Manage arrangements wider works liabilities would be related to actual connection date. It was highlighted that there could be a potential anomaly where the restriction was related to enabling works i.e. beyond the charging definition of local works; however, the generator would need to consider this alongside the benefits of early non firm connection. It was noted that if a party moved their connection date forward they would be liable for TNUoS from the date of connection,

however the issue of any discount due to restricted transmission access is outwith CMP192.

9.85 If the generation project was phased it was envisaged that transmission liabilities would be allocated on a pro rata basis i.e. each phase would effectively be treated as separate projects for user commitment with separate trigger dates and forecast attributable works liabilities allocated between phases.

10 Alternative Proposals

10.1 The Workgroup reviewed the individual Workgroup Consultation Alternative Requests that were submitted through the Workgroup consultation process. Following this, the Workgroup reviewed each individual characteristic that could make up a formal alternative from previous Workgroup discussions, issues identified from general consultation responses previously discussed and also elements of each Workgroup Consultation Alternative Request.

10.2 Following discussion on the Consultation Alternative Requests, the Workgroup voted on whether there was majority support for taking each one forward for consideration in a formal Workgroup Alternative CUSC Modification (WACM) proposal. The Workgroup then discussed how they could be combined into a manageable number of alternative proposals.

Workgroup Consultation Alternative Requests

10.3 There were 9 requests for alternatives received through the Workgroup Consultation process. A brief description of the main issues in each of these is shown in the table below. For full details please refer to the actual requests published in Volume 2 of this Report.

Ref.	Proponent	Alternative Proposal
CAR1	Statkraft	Users on Final Sums & IGUCM should be grandfathered
		Final Sums is kept as an alternative
		No wider liability for pre commissioning users
		Variable notice period that starts when CapEx starts being spent. For offshore wind this is 3 years with 33% steps.
		Prior to the notice period, material CapEx spend by the TO is subject to the developer's approval if financial close has not been obtained by the developer
		Securitised amounts are fully reconcilable
		Recognition of third party financial commitments by netting them off against user commitment
CAR2	EDF Energy	3 Year notice period, 33%, 67%, 100% profile (pre); 2 years + 5 days for post
CAR3	Eggborough	2 years notice period for post (sharing 100%, 50%)
CAR4	EMEC	Attributable definition is up to a substation with four generation circuits
CAR5	Millennium/ Kilbraur	No user commitment for <50MW Power Stations
CAR6	Wind Energy	Split Attributable into three parts: Sole, shared and existing; share with consumers 100/50/(50+postcomm)
		Variable notice period for pre commissioning agreed with TO
CAR7	Wyre	Grandfathering of precomm existing arrangements with one-way switch available
CAR8	Wyre	Specific Advanced Works Amount
CAR9	Wyre	Cap Advanced Works Amount at Y-4 liability

CAR1 Statkraft

10.4 The Statkraft request included several elements. The Workgroup did not support all of the elements and so therefore concluded not to take forward this as an individual WACM alternative. The proposer had recognised that the Workgroup may select only certain elements to take forward. The Workgroup considered each of the issues highlighted by Statkraft and also voted on taking them forward for individual consideration.

Variable Notice Period

10.5 The Workgroup discussed how any wording for this would have to stipulate 'significant' TO CAPEX and how the trigger point could be based on this. The Workgroup agreed that if this were to progress, the notice period for attributable would be when the any spending starts, it would not affect the 1/2/3 step and the term 'significant' would need to be defined.

10.6 The Workgroup noted the similarities with Final Sums without the option for generic. In considering the similar Wind Energy alternative request, it was suggested that the £1,2,3kW step should be retained. A member of the Workgroup pointed out that the original pre trigger step was designed to deal with speculative projects prior to the introduction of Connect and Manage when there was a queue for firm transmission connection. It was suggested that a £1,2,3/kW pre trigger step may no longer be required, and particularly in the case of a Final Sums based methodology it was no longer appropriate.

10.7 There was majority Workgroup support for taking this forward as part of a 'Final Sums' option alternative.

Keeping Final Sums Liabilities

10.8 There was majority Workgroup support for this, however only with respect to local works. The wider works element could be optional through grandfathering. The Workgroup noted that this was already considered as an option in the Workgroup consultation for the Original and potential Alternatives.

TO CAPEX Spend Subject to Developer Agreement

10.9 The Workgroup generally believed that this alternative was too complicated, not fully justified and was mixing generic and specific together. It was not clear how this would work and it could negatively impact on other third parties and overall TO construction programmes.

10.10 The Workgroup also noted that a pre commissioning generator could 'mod app' to delay its commissioning date and for attributable works this may, subject to the impact on third party agreements, delay TO investment. There was no majority Workgroup support for this option.

No Wider Liability for Pre-Commissioning Users

10.11 There was no Workgroup support for this option mainly on the basis that it could be detrimental to post commissioning generation. However, it was also noted that a grandfathering alternative (assuming that wider liabilities are 'shadow covered') would provide this option.

Securitised Amounts Fully Reconcilable

10.12 The Workgroup generally believed that the concept of a generic methodology was at odds with fully reconcilable securities, as it creates an asymmetric risk (i.e. it is unlikely that generators would pay more if the cost

turned out to be higher than the generic amount). There was no majority Workgroup support for taking this forward. The Workgroup recognised that taking forward a Final Sums option partially achieved the objectives of the proposer in raising this request.

Grandfathering for Pre-Commissioning Users

10.13 The Workgroup considered that for some pre commissioning generators it would be beneficial to stay on whatever methodology they have in their current Connection / Construction agreement(s). The Workgroup understood that grandfathering included all aspects of their current contractual arrangements including security; i.e. they would not benefit from reduced security under CMP192.

10.14 As put forward under the CAR7 alternative request, Users would also have the option to switch onto CMP192. The contractual arrangements they would remain on were those as at the date of implementation of CMP192, and these would not be transcribed into the CUSC. It was noted that the revised security amounts on the 42% and 10% step would not be applicable to a User who 'grandfathered' their existing contractual arrangements. The main justification for this option is to minimise disruption and remove uncertainty for generation projects. The Workgroup recognised this may be beneficial to generators close to commissioning, however generally the option to post lower security on CMP192 would tend to encourage parties not to grandfather. It was noted that this did not affect post commissioning Users.

10.15 This characteristic was supported by a majority of the Workgroup.

Financial Commitments to Third Parties as a Proxy

10.16 This characteristic was also put forward by Mainstream as part of the Workgroup discussion. The Workgroup generally believed there was a lack of justification for this and noted that the third party was making no commitment to the transmission companies. This left other transmission Users liable (for any shortfall) and the third party whole. There was no majority Workgroup support for taking this forward.

CAR2 EDF Energy

10.17 The main justification for this is that it is designed to better incentivise the alignment of transmission asset construction build timescales and a User's own construction timescales. This is on the basis that it is a better balance of risk in respect of delayed transmission delivery. Following discussion this option did not receive majority support.

CAR3 Eggborough

10.18 The Workgroup agreed that a 2 year notice period for post commissioning Users should be taken forward. It was noted that if applied only to post commissioning generators it would be dependent on Ofgem deciding that the Final Modification Report either clearly demonstrated that pre and post commissioning Users were different (and therefore the issue of discrimination does not arise), or that they are similar but that there was sufficient justification for treating them differently. The Workgroup also supported taking forward a variant that applied to a 2 year notice period to both pre and post commissioning generation for wider works. This would address concerns by a minority of Workgroup members and consultation respondents, and also address wider concerns about Ofgem's interpretation of discrimination.

10.19 In summary, the Workgroup agreed by majority to take forward notice period options for 2 years for post commissioning (4:2) and also for 2 years notice for wider works for both pre and post commissioning generators (2:2 wider only). For the avoidance of doubt, in the 2:2 option pre commissioning Users still have a four year notice period for attributable works.

CAR4 EMEC

10.20 The attributable works definition is up to a substation with four generation circuits (i.e. not a MITS substation, the definition of which is based on transmission circuits). This option did not receive majority Workgroup support for being developed into a WACM alternative proposal. The Workgroup noted that the Original proposal prorated the capacity for multiple generation projects and believed that further reducing this had not been justified and so could represent double counting.

CAR5 Millennium

10.21 The Workgroup had previously considered the application of CMP192 to embedded generation. It was noted that this option appears discriminatory due to the different treatment it would engender between similar sized generators (e.g. 49MW and 51MW generators would have different liability arrangements from each other), and therefore would be a policy decision outside the CUSC. The Workgroup did not believe sufficient justification had been presented for such different treatment. If adopted this would also increase the liabilities for all other users. There was no majority Workgroup support for this alternative option.

CAR6 Wind Energy

10.22 The alternative request for a variable notice period was discussed by the Workgroup under CAR1.

CAR7 Wyre 1

10.23 The alternative request for grandfathering of current interim user commitment arrangements was discussed by the Workgroup under CAR1.

CAR8 Wyre 2

10.24 This proposed that final sums extended pre trigger date. The Workgroup supported the concept that if a user opted for final sums pre trigger this should be fully cost reflective from signature, i.e. the £1/2/3/kW step would not apply. This is similar in objective to the variable notice period under CAR1.

10.25 A majority of the Workgroup supported this characteristic being included in all WACM alternatives on the basis that post Connect and Manage such an advanced works amount may not be appropriate. It was noted that this only applies if a generator is on specific User Commitment; i.e. the £1,2,3/kW step would still apply if a generator opted for generic pre trigger.

CAR9 Wyre 3

10.26 The Workgroup supported by a majority that a cap on the pre-trigger amount should be taken forward. It was agreed that this would avoid unnecessary steps in liability when the pre trigger amount was higher than the first year at 25% TO CAPEX. When combined with CAR8, the specific option would not be affected as it was fully cost reflective.

Specific Comments from the Workgroup Consultation

10.27 The Workgroup discussed the comments in the Workgroup consultation responses that could conceivably be included as a WACM alternative proposal, but which were not raised as Consultation Alternative Requests, and voted on each significant issue.

10.28 *Who supports developing an alternative with a 4 year notice period for pre commissioning users and a 2 year notice period for post-commissioning users?*

10.29 There was majority Workgroup support for this, as discussed under CAR3.

10.30 Who supports developing an alternative that shares liability for attributable/attributable works 50% with consumers, as per wider?

10.31 There was majority Workgroup support for some form of sharing with consumers. However blanket application was not supported by the Workgroup. Further discussion by the Workgroup led to agreement to take forward a WACM alternative where such sharing was linked to demand being planned to be connected to attributable works, i.e. it would connect a GSP into the main system.

10.32 Who supports developing an alternative that splits the definition of attributable/attributable into three parts: Sole, shared and existing; share with consumers 100/50/ (50+postcomm)?

10.33 There was no majority Workgroup support for this on the basis that the philosophy of sharing is largely already covered. The Workgroup suggested that prorating in the Original proposal dealt with sharing between generators and consumers and an alternative linked to when demand was planned to be connected was sufficient.

10.34 Who supports developing an alternative that defines island connections as assets of strategic national importance?

10.35 There was no majority Workgroup support for this option. The Workgroup suggested the reasons given in support were not sufficient in light of the CUSC Applicable Objectives.

10.36 Who supports an option to switch both ways?

10.37 There was majority Workgroup support for this option. However subsequent discussion led to this option not being included in any WACM alternatives to CMP192. The Workgroup considered that it would be more suitable as a future refinement once the major user commitment policy issues have been decided upon.

10.38 Who supports developing an alternative that uses TNUoS rather than CapEx for determining wider liability?

10.39 There was not majority Workgroup support for this. This is discussed at length in Section 4 of the Workgroup Consultation.

10.40 Who supports developing an alternative that fixes the wider liability in some way?

10.41 It was noted that the purpose of this would be to reduce volatility. There was majority Workgroup support for this in principle, however the Workgroup considered that the Original and Alternatives could be fixed if a generator opted for a generic methodology. This characteristic was not included in the final WACM alternatives.

10.42 Who supports developing an alternative that shares the wider liability with consumers 27/73?

10.43 The majority of the Workgroup did not support this as the arguments put forward were not considered a sufficient justification. This is discussed in Section 4 of the Workgroup consultation.

10.44 Who supports developing an alternative that shares the wider liability with consumers 0/100?

10.45 The majority of the Workgroup did not support this option as the arguments put forward were not considered a sufficient justification. This is discussed in Section 4 of the Workgroup consultation.

10.46 Who supports developing an alternative that uses a smoothing factor to limit the year on year change in wider liability (e.g. 5% cap and collar)?

10.47 The Workgroup discussed the fixing issue in terms of reducing volatility.

10.48 The Workgroup also noted that the 5% figure suggested seems arbitrary and a figure of 10% was proposed. The Workgroup noted that the effect of such a cap would be that the 50% sharing factor potentially varies. The benefits were identified as increased level of certainty of generation investment and reduction of risk that Users could not hedge. There was majority Workgroup support for the concept of providing stability, but taking forward this option was not supported by the Workgroup in any WACM alternative. The Workgroup noted this could be a future refinement if the TO CAPEX estimates proved to be volatile.

10.49 Who supports developing an alternative that changes the calculation of wider liability to ensure importing zones (where loss of G would result in TO investment) have no liability?

10.50 The Workgroup noted the impact on other parties that this would have. There was no majority Workgroup support for this option.

10.51 Who supports developing an alternative that changes the calculation of wider liability to use an s-curve approach to capacity sharing to cover likelihood of closure issue?

10.52 It was highlighted that this was covered in Section 4 of the Workgroup consultation. There was no majority Workgroup support for this option.

10.53 Who supports developing an alternative that TOs charge an admin fee to pre commissioning users who change between generic and specific liability arrangements?

10.54 The Workgroup noted that it was already optional for National Grid to charge reasonable fees, therefore it was agreed by the Workgroup not to take this option forward.

10.55 Who supports developing an alternative that has a 4-year window for pre commissioning generators to sell on their project capacity and thus avoid liability?

10.56 The Workgroup highlighted that there is an existing contractual route out for this through a 'mod app' to delay commissioning date. There was no majority Workgroup support for this option.

10.57 Who supports developing an alternative that has no wider liability at derogated boundaries?

10.58 The Workgroup noted that the Original proposal does not preclude future development and that this option could be dealt with in another CUSC Modification in the future. However, the justification presented was insufficient to justify such a significant change at present. There was no majority Workgroup support to take this option forward as an alternative to CMP192.

10.59 Who supports developing an alternative that uses a probabilistic s-curve to determine boundary compliance factors?

10.60 There was no majority Workgroup support for this. This option was previously discussed in Section 4 of the Workgroup consultation and was seen to be too complex at this stage.

10.61 Who supports developing an alternative that uses an assessment of individual generator closure decisions to determine boundary compliance factors? Who supports developing an alternative that uses an assessment of individual generator closure decisions to determine boundary compliance factors?

10.62 There was no majority Workgroup support for this. This option was previously discussed in the Workgroup and seen to be too complex at this stage.

10.63 Who supports developing an alternative that introduces an additional security milestone between Key Consents and Commissioning of Financial Close, at which point security drops to 0% of liability?

10.64 There was no majority Workgroup support for this option. It was noted that this was highlighted by the Workgroup as a possible alternative, but that there was not sufficient evidence to support this option.

10.65 Who supports developing an alternative that requires post-commissioning users to put up a level of security for their liability?

10.66 There was no majority Workgroup support for this option. These reason for post commissioning generators not increasing security are covered in Section 4 of the Workgroup consultation.

Discussion on TEC Reduction for Pre-Commissioning Users

10.67 The Workgroup discussed a percentage figure that could be used to waiver the TEC reduction charge. It was noted that this would be highly subjective, although it was suggested 10% might be reasonable. Some Workgroup members supported this option and it was noted that it could be a future refinement. However, there was no majority Workgroup support to take forward as an alternative option.

Complete Removal of Advanced Works Amount (£1,2,3/kW)

10.68 It was highlighted that this may be inconsistent with having the generic 4 year notice period option. The Workgroup noted that under the alternative if a generator opted for Final Sums they would avoid the £1,2,3/kW step. There was no majority Workgroup support for this option.

Post-Commissioning TEC Reduction

10.69 The termination fee is invoiced when the TEC is reduced. The majority of the Workgroup agreed that the termination fee should not be given on the same day and that notice was given, but linked to when it took effect e.g. 6 months/ 28 days before. The Workgroup agreed that this was a legal drafting issue and the same approach should be applied across all options.

Alternative Strawman

10.70 Following on from the discussions in the Workgroup, one Workgroup member agreed to draft out a central strawman that captured the main elements of a 'Final Sums' style optional methodology that used specific costs. The strawman is summarised below, with slides available on the website: http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/

10.71 The strawman includes both variable fully cost-reflective (reconcilable) and the proposed fixed CMP192 arrangements (non refundable) for attributable works, with the option given on application by a User. This attributable works amount would be added to a generic wider works liability which would have a two year notice period. Users have the one-off option to switch from variable cost reflective to fixed attributable works liabilities (but not the other way). Users can apply for a fixed agreement at any time but do not have to accept an offer (possibly subject to a fee). An estimate of the attributable works cost reflective liabilities is included in all project offers (S-curve) and a six monthly updates of attributable works liabilities is provided to all Users by the NETSO until commissioning. As per the Original proposal, parties remain liable for the liability set out in their agreement if securities are less than the total liability.

Attributable Cost Reflective (Final Sums) Option

10.72 Users who choose this option for their attributable works liability would receive an S-curve estimate of the cost reflective liability at the time of the offer, with six-monthly updates and associated liability and security requirements from the date of signature. Liabilities would include estimates of asset reuse and strategic investment in a similar way as the Asset Reuse Factors and Strategic Investment Factors in the Original proposal. The liability estimates for attributable works would be shared pro rata with other users, and in the event of termination or TEC reduction would be reconciled against actual spend. Securities against those liabilities would be based on the assessment in the Original proposal, i.e. 42% and 10%.

Attributable Generic Option

10.73 Users who choose this option for their attributable works liability would be liable for £1/kW for the first year after contract signature, rising to £2/kW in second year and up to a maximum of £3/kW in each year prior to the Trigger Date. A "Specific Liability" based on an estimate of attributable works from Year 4 is fixed at 4-years and six months prior to the commissioning date (the specific liability is not linked to developer consents), and would include Asset Reuse Factors and Strategic Investment Factors as per the Original proposal. The "Specific Liability" applies from 4-years prior to the commissioning date and would be multiplied by the following factors (as per the Original proposal): 25% in year -4, 50% in year -3, 75% in year -2 and 100% in year -1. Securities against those liabilities would be based on the assessment in the Original proposal, i.e. 42% and 10%. As per the Attributable Cost Reflective Option, Users would receive an S-curve estimate of cost reflective attributable liabilities in their offer, with six monthly updates of attributable liabilities provided to them by the NETSO until commissioning.

Wider Liability

10.74 Regardless of the option chosen for attributable works liability, users retain a generic liability for wider works. This would be as per the Original proposal, with the following differences. It would be based on a two-year notice period for both pre and post commissioning generators, and would be reduced as more notice is given as follows:

- For pre commissioning generators the wider liability is subject to the following: 75% factor in year -2 and a 100% factor in year -1
- For post commissioning generators the wider liability is subject to the following: 75% factor in year +2 and a 100% factor in year +1

10.75 The Workgroup discussed this alternative option and agreed that it should form the basis of a 2:2 notice period WACM alternative.

Formal Workgroup Alternatives

10.76 The Workgroup considered the characteristics that were supported, along with the strawman alternative provided by one Workgroup member, and combined these into formal Workgroup Alternative CUSC Modification (WACM) proposals. These aspects are described below, and summarised in the matrix showing which WACM contains which aspects.

Notice Period and Profile

10.77 There are three aspects of notice period: (i) 4 years for pre- and post-commissioning Users with 25%, 50%, 75% and 100% profile as per the Original proposal; (ii) 4 years for pre-commissioning with profile as per the Original proposal and 2 years for post-commissioning with 75% and 100% profile; and (iii) 2 years for pre- and post-commissioning for wider works with a 75% and 100% profile, 4 years for pre-commissioning generic local works with a profile as per the Original proposal and a variable period with a variable profile for pre-commissioning specific local works.

Specific Advanced Works Amount

10.78 This aspect removes the generic £1,2,3/kW amount used pre-Trigger Date for Users who choose the specific attributable liability approach, and replaces it with a specific assessment of costs. For the avoidance of doubt, the £1,2,3/kW pre-Trigger Date amount remains for Users who choose the generic attributable liability approach. The Workgroup agreed that this aspect should be common to all WACMs.

Capping the Advanced Works Amount

10.79 This aspect caps the generic £1,2,3/kW amount used pre-Trigger Date for the generic attributable liability approach at the level of the Y-4 estimate (i.e. 25% of the attributable liability estimate given to a User in their offer). The Workgroup agreed that this aspect should be common to all Workgroup Alternatives.

Grandfathering of Current Interim Arrangements

10.80 This aspect would allow Users with existing offers on the interim arrangements for user commitment extant at the date of implementation of

CMP192 (i.e. IGUCM or Final Sums) to continue on those contractual arrangements until commissioning, with the option to switch onto CMP192 if desired. This would include all aspects of their current arrangements including security, i.e. they would not benefit from the proposed 42% / 10% reduced security under CMP192. The arrangements would not be transcribed into the CUSC.

Sharing of Attributable Liability with Demand Users

10.81 This aspect would include a Demand Sharing Factor of 50% into the calculation of a User's attributable liability. This factor would only be applicable for attributable transmission investments that were designed to accommodate demand, either existing or in the future.

Conclusion on Workgroup Alternative CUSC Modification (WACM) Proposals

10.82 The Workgroup compiled the above aspects into the matrix of Workgroup Alternative CUSC Modification (WACM) proposals. These WACM alternative proposals were voted on by the twelve Workgroup members present to determine which would be taken forward as formal Workgroup Alternative CUSC Modifications. The table below shows the support received for each in the initial Workgroup vote.

CMP192 Workgroup Alternatives

Notice Period	Pre : Post 4 : 4				Pre : Post 4 : 2				Pre : Post Wider 2 : 2 / local 4 unless FSL			
Profile	25,50,75,100 : 25,50,75,100				25,50,75,100 : 75,100				75,100 : 75,100			
Additional features:												
FSL (no 1,2,3 £/kW) option	1	1	1	1	1	1	1	1	1	1	1	1
1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%)	1	1	1	1	1	1	1	1	1	1	1	1
Grandfathering option for pre-commissioning	0	0	1	1	0	0	1	1	0	0	1	1
50% sharing for all local reinforcements where demand is existing or planned at the site	0	1	0	1	0	1	0	1	0	1	0	1
Vote (out of 12)	9	4	8	9	10	8	10	10	5	7	9	9
Workgroup Chair		save							save			
Workgroup Alternative Number	1	2	3	4	5	6	7	8	9	10	11	12

10.83 Following the initial vote the Workgroup Chairman opted to retain WACM alternatives 2 and 9 despite their not receiving majority Workgroup support, in accordance with the CUSC governance rules (that the alternative better meets the Applicable CUSC Objectives than the current CUSC in the view of the Workgroup Chairman).

10.84 Each Workgroup member was then given the opportunity to vote (by email) on (1) whether each alternative, including the Original proposal, better met the CUSC Applicable Objectives; (2) whether each alternative better met the CUSC Applicable Objectives than the Original proposal; and (3) which

proposal, including CUSC baseline, best met CUSC Applicable Objectives. Fourteen Workgroup members voted and the vote is summarised below[33].

(Number of Votes in Favour)	CUSC Baseline	Original	WA1	WA2	WA3	WA4	WA5	WA6	WA7	WA8	WA9	WA10	WA11	WA12
Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline**?		6	8	8	8	8	11	11	12	12	9	10	10	9
Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline**?		4	6	6	6	6	11	10	12	12	10	11	11	10
Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?			8	7	7	7	12	12	12	12	9	9	9	9
Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?			9	8	8	8	13	13	13	13	9	9	9	9
Which option BEST facilitates achievement of the Applicable CUSC Objectives?	0	0	1	0	0	2	0	0	1	5	0	1	1	3

10.85 The majority of the Workgroup did not believe that the CUSC Baseline or the Original proposal better facilitated the Applicable CUSC Objectives.

10.86 The majority of the Workgroup considered that Alternatives 1 to 4 (four year notice period for both pre- and post-commissioning) better facilitated objective (a) than the CUSC Baseline and objective (b) than the Original proposal.

10.87 The majority of the Workgroup considered that the remaining Alternatives 5 to 12 (based on variations on a two year notice period for post-commissioning generators) better facilitated objectives (a) and (b) than both the Original proposal and the CUSC Baseline.

10.88 Overall there was no majority consensus that any single proposal best facilitated the objectives, however Workgroup Alternative 8 received the most votes with 5 out of a possible 14.

[33] Individual voting responses are detailed in Annex 7 and on the CUSC administrator website: http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandinggroups/wg/CMP192/index.htm

Annex 1 – CMP192 CUSC Modification Proposal

CUSC Modification Proposal Form	CMP192

Title of the CUSC Modification Proposal:

Arrangements for Enduring Generation User Commitment

Submission Date: **17/2/2011**

Description of the CUSC Modification Proposal ***(mandatory by Proposer)***

This Modification Proposal seeks to add a new section to the CUSC defining the principles of user commitment as they pertain to electricity Generators. This section will detail the methodology that will be used to determine individual Generators' liabilities and the level of securities required against these liabilities.

As adding or removing generation from the system has an equal and opposite effect on the need for network capacity, it is clear that both pre- and post-commissioning Power Stations affect decisions on new transmission investment. Whilst the cancellation of a pre-commissioning Power Station could affect local and wider investment decisions, the closure of a post-commissioning Power Station will only affect new wider investment decisions. Therefore it is proposed that the Generator user commitment liabilities are calculated using two terms; 1), a Cancellation Amount for pre-commissioning Power Stations that takes account of transmission investment for local and wider works; and 2) a Closure Amount for post-commissioning Power Stations that takes account of the investment for wider works.

National Grid is proposing eight main aspects that the enduring solution must take into account in determining the nature and level of Cancellation and Closure liabilities and the reasonable level of securities required against these liabilities:

1. Protecting the end consumer from undue risk
2. Minimum notice period required to alter TO investment before significant costs are incurred
3. Profile of TO investment costs
4. Likelihood of Power Stations either cancelling or closing
5. Total Value at Risk (VAR)
6. Level of transmission capacity sharing between Power Stations
7. Proportion of TO investment not at risk due to Connect & Manage regime
8. Level of transmission asset reuse

The consequence of a Power Station cancelling or closing is that Transmission Owner (TO) investment could be spent unnecessarily, with insufficient time to allow the TO to take action to avoid the new investment. The current and interim arrangements for user commitment assume that a user's liability is proportional to the cost of this unnecessary investment (or a generic proxy for the cost), however it may be that changing this proportion still affords an acceptable risk for end consumers whilst reducing the financing barrier for new Power Stations connections.

The determination of the level of liabilities and the securities required against these liabilities must also be considered separately for both local and wider works in the context of end consumers accepting a reasonable level of risk. This determination must not be unduly discriminatory or prevent promotion of competition, and should seek to provide a secure and stable business environment. In order to provide values for Cancellation and Closure Amounts that effectively account for all potential Generators, it is proposed that the definitions of

local and wider works in the context of user commitment are based on Sections 2 and 4 of the National Electricity Transmission System Security & Quality of Supply Standards (SQSS) as defined in the Transmission Licence.

One of the aims of this proposal is to provide the right incentive so that TOs receive accurate and timely information to aid efficient and economic investment decisions, allowing the efficient discharge of TOs obligations under the Act and Licence. It is therefore proposed that the time period within which a Generator has a liability to the TO is based on the notice period that TOs reasonably require to change investment plans with the lowest practicable cost impact. It is recognised that there must be a balance between Generators providing TOs with as much notice as possible of their intentions whilst not imposing an onerous and unmanageable requirement on Generators to guarantee a level of information that they practically do not have, which would impact upon effective competition. National Grid has determined from historic investment spend profiles that this optimum notice period is, on average, four years.

This Modification Proposal will replace the current interim Final Sums (Local Works Only) and Interim Generic User Commitment Methodology (IGUCM) arrangements for identifying Generators' liabilities and associated level of securities for pre-commissioning Generators and the Full TEC Reduction Notice Period and Cancellation Charge for post-commissioning Generators.

We recognise that the DECC and Ofgem fundamental reviews of both the market and charging arrangements (Electricity Market Reform and Project TransmiT) may interact with this proposal. However we believe there is significant merit in progressing this particular issue in parallel. This will ensure the timely implementation of a new regime which is intended to remove uncertainty for developers and thus better enable the achievement of the common objectives of these reviews.

Description of Issue or Defect that CUSC Modification Proposal seeks to Address: ***(mandatory by Proposer)***

When a Generator terminates they are liable for Final Sums and therefore have to provide security against the company's estimate of this liability. They represent a financial commitment from pre-commissioning Generators which falls away and is replaced with Use of System charges once a Power Station is connected. These "final sums" are based on the costs incurred by TOs in undertaking the transmission works to provide the connection to\use of system required by that user, which turns out to be unnecessary in the event of termination.

These costs are uncertain because although estimates are provided, the exact cost due on termination will not be known until after termination. The level of these costs also varies, generally increasing in significant steps during the construction programme as TOs progress the works. There are also issues in associating and sharing specific transmission construction works (and therefore the costs associated with these) to a particular user or group of users. This could result in a Generator, due to the timing of its application or Completion Date and the amount of transmission construction works now generally required to accommodate the level of requested capacity on the transmission system, becoming liable for significant amounts compared with the size and cost of its own development. The level of liability is also subject to change as the transmission construction works alter, and this can be significantly affected by the decisions of other Generators.

In order to address the above issues, National Grid introduced the Interim Generic User Commitment Methodology (IGUCM) which set the level of Generators' liabilities and associated securities based on a multiple of their TNUoS tariff. In conjunction with these arrangements, National Grid reviewed user commitment for New and Existing Generators under CUSC Amendment Proposal 131, which sought to introduce a generic user commitment methodology on an enduring basis. This was rejected by the Authority as it considered there was insufficient justification put forward for the different treatment between pre- and post-commissioning Power Stations. Following the Transmission Access Review and further industry consultation

and discussions with Ofgem (April 2010 Final Sums Liabilities consultation), it was agreed that National Grid would implement a further interim solution where liabilities and therefore the security required for wider transmission investment works are not sought. This agreement on the two interim arrangements was time-limited to 31st March 2011 (recently extended to 31st March 2012), and therefore National Grid is seeking to develop and introduce an enduring regime before this date.

National Grid believes that the review would be best conducted in partnership with the industry through a transparent and structured governance arrangement. This will allow the industry to engage actively in the development of the enduring regime.

The Modification Proposal seeks to address the following defects in the current user commitment regime:

1. **The methodology for calculating user commitment requirements is not defined in the existing commercial framework, and as such is non-transparent to users.**

2. **The level and volatility of liabilities, and hence the level of security, determined through the existing methodology can represent a barrier to entry for new Power Stations.**

3. **Any difference in treatment of pre- and post-commissioning users should be objectively justified.**

4. **The existing arrangements do not take into account the perceived risk profile associated with cancellation and closure that changes throughout a Power Station's lifetime**

This would address the perceived barriers to entry, provide more confidence in the firmness of capacity applications, and be equally applicable to all Generators.

Impact on the CUSC *(this should be given where possible)*

The proposal suggests the inclusion of a new section or schedule to be added to the CUSC entitled "User Commitment".

The new section will bring together in one place the calculation and processes applying to the derivation of what has been previously referred to as "final sums" and IGUCM, and will define the ongoing user commitment of existing generators to incentivise early notification of reductions in capacity.

In addition to the new section of the CUSC, changes may be applicable in the following areas:

- Removal of references to "Final Sums" and new definitions as required
- CUSC Section 2.14 – Connection Charges
- CUSC Section 3.9.1 – Use of System Charges
- CUSC Section 6.6 – Payment
- CUSC Section 6.30.1 – Decrease in Transmission Entry Capacity
- CUSC Section 6.30.2 – Increase in Transmission Entry Capacity
- CUSC Schedule 2 Exhibit 1 – Bilateral Connection Agreement
- CUSC Schedule 2 Exhibit 3 – Construction Agreement and Offshore Construction Agreement

Do you believe the CUSC Modification Proposal will have a material impact on Greenhouse Gas Emissions? Yes

Implementation of this Modification Proposal is anticipated to reduce the barriers to connection, and as such may be expected to improve the situation for developing low carbon projects. As these are expected to replace older more carbon

intensive generation this proposal, along with wider market and framework reviews, should reduce the risk of not meeting the Government's Greenhouse Gas Emissions targets.

Impact on Core Industry Documentation. Please tick the relevant boxes and provide any supporting information *(this should be given where possible)*

BSC ☐

Grid Code ☐

STC ☒

Changing the user commitment regime is expected to provide more information that will need to be shared with TOs under the STC.

Other ☒ Transmission Licence

(please specify)

National Grid as NETSO secures works on behalf of all TOs. Both the arrangements in the CUSC and the revenue restrictions in the transmission licenses should be consistent with those in the CUSC and bilateral agreements. Therefore any change to the liabilities and security arrangements in the CUSC and associated agreements could have a consequential impact, and both should be reviewed.

Urgency Recommended:

No

Justification for Urgency Recommendation

N/A

Self-Governance Recommended:

No

Justification for Self-Governance Recommendation

N/A

Should this CUSC Modification Proposal be considered exempt from any ongoing Significant Code Reviews?

There are no ongoing SCRs that would be applicable to this CUSC Modification Proposal.

Impact on Computer Systems and Processes used by CUSC Parties: *(this should be given where possible)*

It is not anticipated that this proposal will affect the computer systems of CUSC parties. As part of the development National Grid will review the robustness of internal system for determining the liability and security requirements.

Details of any Related Modification to Other Industry Codes *(where known)*:

To be confirmed, when the proposals has been fully developed.

Justification for CUSC Modification Proposal with Reference to Applicable CUSC Objectives: ***(mandatory by proposer)***

Please tick the relevant boxes and provide justification:

☒ **(a) the efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence**

Given that the unexpected closure of a post-commissioning Power Station has the same impact on planned transmission investment as the unexpected cancellation of a pre-commissioning Power Station, the difference in treatment between the two could potentially have an adverse impact on competition and should be objectively and transparently justified. In introducing an enduring regime, codified under open governance, whereby all Generators are incentivised to provide information on their future connection to the system, this Modification Proposal is expected to better facilitate the development of an efficient co-ordinated and economical transmission system and also establish the applicable treatment under Licence Condition C7 – Prohibition on Discriminating Between Users.

This information will also allow the Transmission Owners to plan and develop the transmission system in a more effective manner, supporting main the duties under the Act and the requirements of Transmission Licence C17.

☒ **(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.**

Reducing the volatility and opacity of the current arrangements for user commitment will allow users to more accurately forecast their securities and therefore increase confidence in obtaining project financing. This will reduce the perceived barrier to new generation connecting, and hence improve competition in the generation market. Introducing equitable treatment between pre- and post-commissioning users ensures fair competition between the two by accurately reflecting the transmission liability that they both impose.

These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1

Details of Proposer: (Organisation Name)	National Grid Electricity Transmission plc

Capacity in which the CUSC Modification Proposal is being proposed: (i.e. CUSC Party, BSC Party or "National Consumer Council")	CUSC Party
Details of Proposer's Representative: Name: Organisation: Telephone Number: Email Address:	**Adam Sims** **National Grid Electricity Transmission plc** **01926 655292** adam.sims@uk.ngrid.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	Ivo Spreeuwenberg National Grid Electricity Transmission plc 01926 655897 **ivo.spreeuwenberg@uk.ngrid.com**
Attachments (Yes/No): **If Yes, Title and No. of pages of each Attachment:**	

Annex 2 – Workgroup Attendance

Name	Company	Role	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
Patrick Hynes	NG	Chair	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Emma Clark	NG	Technical Secretary	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Adam Sims	NG	Proposer	Y	Y	Y	Y	Y	Y	Y[g]	Y	Y	Y
Louise Schmitz	EDF Energy	Workgroup Member	Y	Y	Y[a]	Y	Y	Y	Y	Y	Y[e]	Y
Garth Graham	SSE	Workgroup Member	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Michael Dodd	ESBI	Workgroup Member	N	Y	Y	Y	Y	Y	N	Y	Y	Y
Paul Jones	E.ON	Workgroup Member	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
James Anderson	Scottish Power	Workgroup Member	N	Y	Y	Y	Y	Y	Y	Y	N	N
Bill Reed	RWE	Workgroup Member	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Simon Lord	FHC	Workgroup Member	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Nick Fedorkiw	Mainstream Renewable Power	Workgroup Member	Y	Y	Y	Y	Y	N	Y	N	N	Y
Dennis Gowland	Fairwind Orkney	Workgroup Member	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Peter Waghorn	Cornwall Energy	Workgroup Member	Y	Y	Y	Y	Y	Y	Y	Y[d]	N	Y
Lisa Waters	Waters Wye	Workgroup Member	Y	Y	N	Y	Y	Y	Y	Y	N	Y
Merel van der Neut Kolfschoten	Centrica	Workgroup Member	Y	Y[b]	Y	Y[b]	Y	Y[b]	Y	Y	N	Y
Helen Snodin	Xero Energy	Workgroup Member	Y	Y	Y	Y	Y[c]	N	Y	Y	N	Y
Alex Murley	Renewable UK	Workgroup Member	Y	Y	Y	Y	Y	Y	N	N	N	Y
Gareth Walsh	Ofgem	Authority Rep	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Deborah MacPherson	Scottish Power	Observer	Y	N	Y	N	N	N	N	N	N	N
Alec Morrison	SHETL	Observer	N	N	N	N	N	N	N	N	N	N
Diana Kennedy	RWE Npower Renewables	Observer	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Patrick Smart (joined 30/3/11)	RES	Workgroup Member	N	N	N	Y	Y	N	Y	Y	Y	Y[f]

[a] John Morris in place of Louise Schmitz

[b] Ricky Hill in place of Merel Van Der Neut Kolfschoten

[c] Maf Smith in place of Helen Snodin

[d] Bob Brown in place of Peter Waghorn

[e] Rob Rome in place of Louise Schmitz

[f] Graham Pannell in place of Patrick Smart

[g] Ivo Spreeuwenberg in place of Adam Sims

Annex 3 – CMP192 Workgroup Terms of Reference

TERMS OF REFERENCE FOR CMP192 WORKGROUP

RESPONSIBILITIES

1) **The Workgroup is responsible for assisting the CUSC Modifications Panel in the development and evaluation of CUSC Modification Proposal CMP192, "Arrangements for Enduring Generation User Commitment", tabled by National Grid Electricity Transmission plc at the Modifications Panel meeting on 25th February 2011.**

2) **The proposal must be evaluated to consider whether it better facilitates achievement of the Applicable CUSC Objectives. These can be summarised as follows:**

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

   (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.

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) Protecting the end consumer from undue risk
   b) The minimum notice period required to alter TO investment before significant costs are incurred
   c) The profile of TO investment costs
   d) The likelihood of Power Stations either cancelling or closing
   e) How the Value at Risk (VAR) is identified from TO investment costs
   f) The level of transmission capacity sharing between Power Stations
   g) The proportion of TO investment not at risk due to Connect & Manage regime
   h) The level of transmission asset reuse and asset stranding
   i) The applicability of the user commitment arrangements for all users, including pre- and post-commissioning
   j) The definition of local, enabling and wider investment for user commitment
   k) Any alternative Modification Proposals
   l) The impact of the Modification Proposal and any alternatives on greenhouse gas emissions
   m) The process and costs of implementation of the Modification Proposal and any alternatives

n) **The security of supply implications (e.g. potential risk of thermal plant closing early, whether the new arrangements promote earlier build of new generation, etc)**
o) **The provision of quarterly updates to each Power Station detailing their specific Cancellation / Closure liability going forward**
p) **The provision to the Panel of the (GB) total figures for the Cancellation and Closure liabilities together with the total credit provided by users and how often this should be provided.**
q) **The volatility of liabilities and associated security of the Cancellation / Closure liabilities going forward**
r) **Compatibility with the enduring Connect and Manage regime introduced in August 2010**
s) **The practical timeframe for generators to provide TOs with notice of their intentions**
t) **Accurately quantifying the transmission liabilities that cancelling or closing Power Stations impose**

6) The Workgroup is responsible for the **formulation**, development 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 National Grid(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 8.17. The Workgroup Consultation period shall be for a period of **four weeks** 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.

12) 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.

13) The Workgroup is to submit its final report to the Modifications Panel Secretary on 18th August 2011 for circulation to Panel Members. The final report conclusions will be presented to the CUSC Modifications Panel meeting on 26th August 2011.

MEMBERSHIP

14) It is recommended that the Workgroup has the following members:

Role	Name	Representing
Chairman	Pat Hynes	
*National Grid Representative**	Adam Sims	The Company
*Industry Representatives**	Louise Schmitz	EDF Energy
	Garth Graham	SSE
	Michael Dodd	ESB International
	Paul Jones	EON
	James Anderson	Scottish Power
	Bill Reed	RWE
	Simon Lord	First Hydro Company
	Nick Fedorkiw	Mainstream Renewable Power
	Dennis Gowland	Fairwind Orkney
	Peter Waghorn	Conoco Philips
	Lisa Waters	Wyre Power
	Merel van der Neut Kolfschoten	Centrica
	Helen Snodin	Vattenfall
	Alex Murley	RenewableUK
	Patrick Smart	RES Ltd
Authority Representative	Gareth Walsh	Ofgem
Technical Secretary	Emma Clark	
Observers	Diana Kennedy	RWE npower renewables
	Alec Morrison	SHETL
	Deborah McPherson	SP Transmission Limited

* 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.

15) 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 CMP192 is that at least **five** Workgroup members must participate in a meeting for quorum to be met.

16) 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.

17) The results from the vote and the reasons for such voting shall be recorded in the Workgroup report in as much detail as practicable.

18) 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.

19) 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.

20) 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.

21) The Workgroup membership can be amended from time to time by the CUSC Modifications Panel.

RELATIONSHIP WITH MODIFICATIONS PANEL

22) The Workgroup shall seek the views of the Modifications Panel before taking on any significant amount of work. In this event the Workgroup chairman should contact the Modifications Panel Secretary.

23) The Workgroup shall seek the Modifications Panel's advice if a significant issue is raised during the Consultation process which would require a second period of Consultation in accordance with 8.20.17 of the CUSC.

24) Where the Workgroup requires instruction, clarification or guidance from the Modifications Panel, particularly in relation to their Scope of Work, the Workgroup chairman should contact the Modifications Panel Secretary.

MEETINGS

25) The Workgroup shall, unless determined otherwise by the Modifications Panel, develop and adopt its own internal working procedures and provide a copy to the Panel Secretary for each of its Modification Proposals.

REPORTING

26) The Workgroup chairman shall prepare a final report to the August 2011 Modifications Panel responding to the matters set out in the Terms of Reference, including all Workgroup Consultation Reponses and Alternative Requests.

27) A draft Workgroup Report must be circulated to Workgroup members with not less than five Business Days given for comments, unless all Workgroup members agree to three Business Days.

28) Any unresolved comments within the Workgroup must be reflected in the final Workgroup Report.

29) The chairman (or another member nominated by him) will present the Workgroup report to the Modifications Panel as required.

Appendix 1: Indicative Workgroup Timeline

The following timetable is suggested for progressing the CMP192 Workgroup.

25th February 2011	CUSC Modifications Panel Meeting to present CMP192
7th March 2011	First CMP192 Workgroup meeting
21st March 2011	Second Workgroup meeting
1st April 2011	Third Workgroup meeting
18th April 2011	Fourth Workgroup meeting
9th May 2011	Fifth Workgroup meeting
18th May 2011	Sixth Workgroup meeting
23rd May 2011	Seventh Workgroup meeting
6th June 2011	Eighth Workgroup meeting
20th June 2011	Ninth Workgroup meeting
24th June 2011	Issue draft Workgroup Consultation for Workgroup comment (5 working days)
1st July 2011	Deadline for comments on draft Workgroup Consultation
5th July 2011	Publish Workgroup consultation (for four weeks)
2nd August 2011	Deadline for responses to Workgroup consultation
8th August 2011	Post-consultation Workgroup meeting (to review consultation responses, confirm any alternatives and undertake Workgroup vote)
10th August 2011	Circulate draft Workgroup Report for comment (5 working days)
17th August 2011	Deadline for comment on Workgroup report
18th August 2011	Submit final Workgroup report to Panel Secretary
26th August 2011	Present Workgroup report to CUSC Modifications Panel

Notes:

1. Workgroup meetings are proposed at fortnightly intervals to allow sufficient time for actions to be progressed between meetings with the exception of the meeting on 18th May which was planned following cancellation of the TCMF.

2. A four working week period has been proposed for the Workgroup Consultation, given the complexity and the breadth of the issues to be consulted upon by the Workgroup and also to take into consideration the summer holidays. This could be reduced if required.

3. The timescales may be reduced further if the standard CUSC timescale for reviewing Workgroup documents is reduced from 5 to 3 Working Days, in line with Section 8 of the CUSC 4. If more than one Workgroup meeting is required after the Workgroup Consultation closes (for example, for consideration of any WG Consultation Alternative requests), this is likely to prevent a Workgroup Report reaching the August Panel meeting.

Annex 4 – Detailed Strawman of the Original Proposal

This strawman was written to illustrate the steps in the calculation of user commitment liabilities for all Users as a result of the original CMP192 methodology, and is intended to be read in conjunction with the strawman spreadsheet. It should be noted that this was the methodology of the Original Proposal during May/June 2011, and as such is not necessarily identical to the methodology of the Original Proposal that was eventually put to the CUSC Panel.

Summary of Process

The methodology is based on the principle that user commitment is required to cover the cost of abortive future transmission works rather than indemnifying existing assets. Therefore the methodology asserts that all Users should retain a liability for wider transmission investments, whilst only pre-commissioning Users retain a liability for local works as once they are built they are effectively sunk costs. Furthermore, a reduction in TEC by a post-commissioning generator has the same impact on transmission investment plans as the closure of a similar sized generator, and therefore the user commitment arrangements apply to TEC reductions as well as cancellations and closures.

Calculation of Wider Liability

The wider liability is represented as a unit cost (£/MW) which varies depending on which generation zone the User is located in. To arrive at these 'unit liabilities', the following steps will be undertaken prior to the coming year:

1. Determine the TO CapEx for the coming year, excluding Attributable TO CapEx
2. Apply reduction and sharing factors
3. Apportion the TO CapEx to transmission boundaries and adjust for the effect of Connect & Manage
4. Map the boundary TO CapEx figures to generation zones
5. Divide the zonal TO CapEx by the zonal generation charging base

This generates a £/MW zonal liability based on the current year's transmission CapEx spend which all Users, pre-commissioning and post-commissioning, are liable for based on their TEC in that year.

Calculation of Attributable Liability

The attributable liability is derived from forecast actual costs of a User's attributable works to arrive at a generator-specific liability which is added to the User's generic wider liability four years prior to commissioning. This liability is determined by the following process:

1. Determine the extent of a generator's attributable works by reference to CUSC Section 14 definition of "Local"
2. Identify the forecast cost of these works
3. Apply reduction and sharing factors

This generates a maximum attributable liability for individual pre-commissioning users.

Post-Commissioning Users

Post-commissioning Users are liable for 100% of the wider unit liability that applies to the zone in which they are connected. In the event that a post-commissioning User wishes to close (or reduce TEC), the amount of notice that it provides to the TO of the User's intentions acts to reduce the level of liability that is applied by the TO by 25% per year of notice given.

Whilst the level of TO CapEx (and therefore the wider unit liabilities) will change annually, once a generator has notified its intention to close or reduce TEC, the wider unit liability used to calculate the final amount that the generator is liable for will be frozen.

Pre-Commissioning Users

Beyond four years prior to commissioning, a pre-commissioning User's attributable liability increases annually from £1/kW by £1/kW. This continues to a maximum of £3/kW unless the project only has four years left until commissioning. Once only four years remain until commissioning, Users are liable for a proportion of the sum of their wider liability and their attributable liability. This proportion is dependant on the number of years until their commissioning date and rises in 25% increments.

The security that the User is required to post against this liability is as per National Grid's current credit arrangements (as set out in the CUSC and associated documents), but the level is reduced depending on whether or not the User has achieved certain consenting milestones. These reductions are based on an assessment of the percentage of new projects which cancel before consents and after consents.

Wider Liability

Determine TO CapEx

The wider liability is based on annual TO CapEx, and this therefore sets the frequency at which it is updated. In the autumn prior to the start of the financial year (1st April), TOs will provide the total load related (LR) and non-load related (NLR) CapEx for the next financial year to the NETSO. Alongside this, they will provide a forecast of the same figures for the following three financial years. This will be done in sufficient time for the NETSO to be able to calculate and publish users' liabilities.

Reduction and Sharing Factors

The NETSO will summate all TO CapEx data into a LR and NLR figure and then multiply them by the User Risk Factor (URF) and the Global Asset Reuse Factor (GARF). The URF is 50% and exists to recognise the fact that consumer demand also drives wider transmission investment. The GARF is 33% (as set out in Section 4) and represents the transmission assets which a TO could potentially reuse on another project.

Once total LR and NLR figures are determined, they must be apportioned across the system.

Transmission Boundaries for Load Related Investment

LR TO CapEx is spent to increase the capability of the transmission system in areas of congestion. These increases in Required Capability are shown for each system boundary in Section 8 of the Seven Year Statement. For each boundary,

the increase in Required Capability over the 4 year liability period is multiplied by the physical size of the infrastructure that the boundary represents, expressed as the 'length' of the boundary in MWkm. This acts to weight the capability increase by the amount of investment required to make it.

At this point, any negative capability changes are set to zero. Reductions in boundary capability show the system using up spare capacity created by previous transmission investments, and are therefore not directly affected by the current TO CapEx programme.

The LR total TO CapEx figure is apportioned between the boundaries based on their proportion of the overall capability increase, and then further reduced by the effect of the Connect & Manage regime.

The Effect of Connect & Manage

In order to include the effect of the disconnect between generators coming onto the system and the transmission investment required to support them, Compliance Factors are calculated on each boundary. These factors are determined as the ratio between the available capability and required capability on each boundary, as detailed in Section 8 of the Seven Year Statement, and act to reduce the user commitment required for non-compliant boundaries.

The LR boundary TO CapEx figures are multiplied by their respective Compliance Factors before being added to the NLR TO CapEx figures.

Transmission Boundaries for Non-Load Related Investment

NLR TO CapEx is spent across the network to replace assets and maintain the capability of the transmission system. The NLR total TO CapEx figure is apportioned between the 20 generation zones in the same way as for LR TO CapEx, but instead of being apportioned by the increase in boundary capability they are apportioned by the current existing capability. This ensures that those areas of the network with the most infrastructure to repair and replace have a proportionately higher NLR liability to cover.

Once LR and NLR boundary TO CapEx figures are determined, they are summated and mapped to generation zones.

Mapping to Generation Zones

The LR and NLR TO CapEx figures are mapped from boundaries to SYS zones by reference to the following table of influence:

SYS Zone	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17
Z1	1	1		1	1	1	1	1	1		1					1	
Z2		1		1	1	1	1	1	1		1					1	
Z3			1	1	1	1	1	1	1		1					1	
Z4				1	1	1	1	1	1		1					1	
Z5					1	1	1	1	1		1					1	
Z6						1	1	1	1		1					1	
Z7							1	1	1		1					1	
Z8								1	1		1					1	
Z9								1	1								
Z10									1							1	
Z11									1								1
Z12														1			
Z13												1					
Z14														1			
Z15															1		
Z16										1		1					
Z17										1		1	1				

Where a boundary has an effect on more than one zone, the TO CapEx on that boundary is apportioned to the zones based on their relative proportions of pre- and post-commissioning generation shown for the year in the Seven Year Statement. For example, a boundary with a TO CapEx of £10M affects two zones with generation of 1MW and 2MW. The TO CapEx will be apportioned £3.3M (10 * 1/3) to the first zone and £6.7M (10 * 2/3) to the second zone.

The LR and NLR zonal TO CapEx figures are then summed and divided by the pre- and post-commissioning charging base to give a unit cost of wider liability for each zone (£/MW). The charging base is taken from the current year SYS with the generators who have notified cancellation or closure removed.

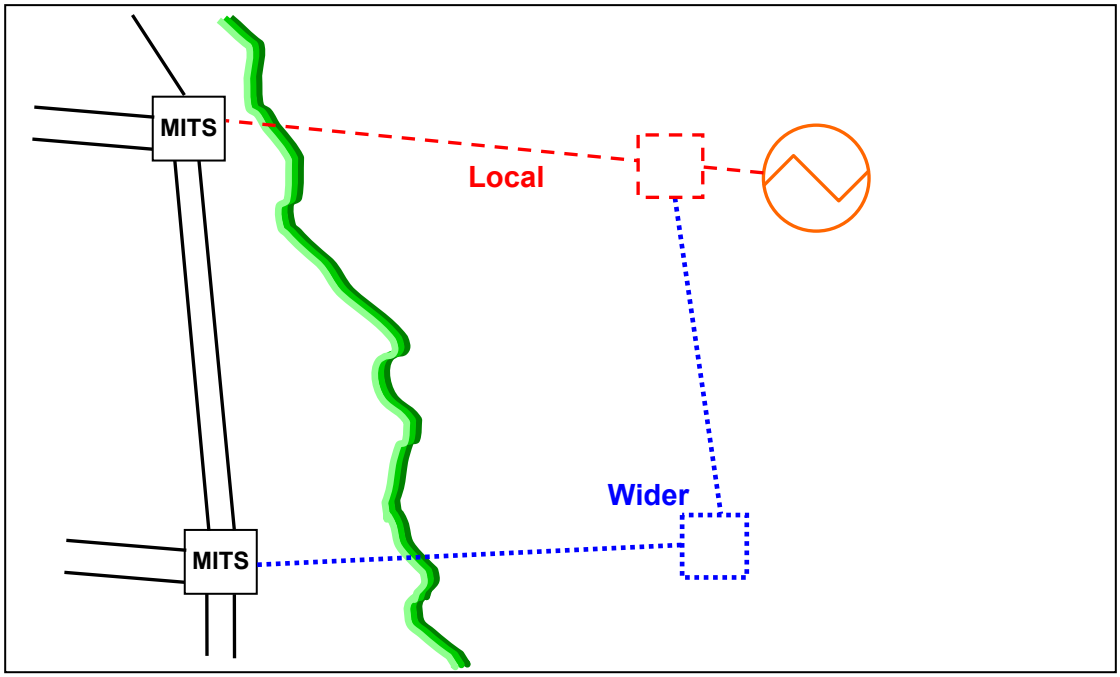
Attributable Liability

Determine the Extent of Attributable Works

Attributable works are assets that generators are solely liable for. They are defined as the works required to connect the generator to a MITS (Main Integrated Transmission System) node, as defined in Section 14 of the CUSC. This defines MITS nodes as:

- Grid Supply Point connections with 2 or more transmission circuits connecting at the site; or
- connections with more than 4 transmission circuits connecting at the site.

For offshore Users not connecting to an offshore MITS node, the attributable works would be capped as the assets required to connect the generator to the nearest suitable onshore MITS node (i.e. any offshore transmission, such as for an integrated offshore network, would not be attributable works). Whilst unlikely, it is anticipated that this would apply equally to onshore Users. This is illustrated in the following diagram.



Identify the Cost of Attributable Works

Once the extent of the pre-commissioning generator's attributable works is identified, the estimated capital cost is determined by the appropriate TO(s). This

total cost is set prior to the start of the four year pre-commissioning user commitment period, and is non-reconcilable.

Reduction and Sharing Factors

The cost of a generator's attributable works is reduced by a Local Asset Reuse Factor (LARF) along with a Strategic Investment Factor (SIF). The LARF is determined by the TO on a generator specific basis and is a percentage which represents the transmission assets being constructed for that generator which the TO could potentially reuse on another project. The SIF is a discount that applies in the event that a TO builds greater capability than is required for the forecast generation connecting to that asset, and is calculated for each circuit/cable/substation as a ratio of total generation capability against asset capability. Once the cost of the attributable works is reduced, it is shared over all pre-commissioning generators sharing it pro-rata based on their TEC. This is the maximum attributable liability that a generator has during the four year pre-commissioning user commitment period.

For example, two pre-commissioning generators of 50MW each trigger an attributable circuit investment. The TO decides the most efficient and economic investment is a 150MW capability circuit costing £30M, with an LARF of 20%. The LARF reduces the cost to 80% and the SIF reduces it to (50MW + 50MW) / 150MW = 66%. In this case both generators have a liability for the attributable works of £30M * 80% * 66% = £16M. This is then shared between the two generators pro-rata based on their share of the capability (50MW / 100MW), so each has a maximum attributable liability of £8M.

Post-Commissioning Users

Post-commissioning Users are liable for 100% of the wider unit liability that applies to the zone in which they are connected. For example, a 150MW generator in a zone with a unit liability of £4,000/MW will have a wider liability of £600k.

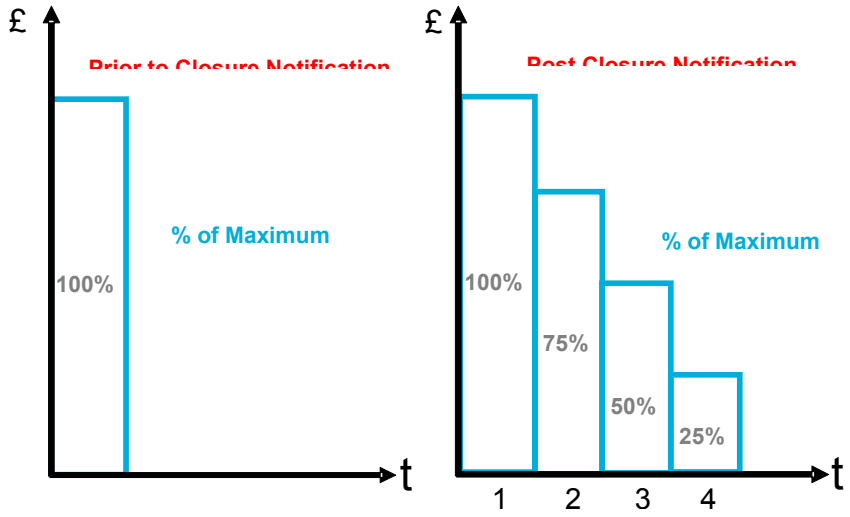
In the event that a post-commissioning User wishes to close (or reduce TEC), the amount of notice that it provides to the TO of it's intentions acts to reduce the level of liability that is applied by the TO as shown in the table below.

Amount of Notice Provided	**Level of Wider Unit Liability**
Less than 1 year	100%
Between 1 and 2 years	75%
Between 2 and 3 years	50%
Between 3 and 4 years	25%
Greater than 4 years	0%

Whilst the level of TO CapEx (and therefore the wider unit liabilities) will change annually, once a generator has notified its intention to close or reduce TEC, the wider unit liability used to calculate the final amount that the generator is liable for will be frozen. If the generator in the previous example gave between 2 and 3 years notice that it was closing, and on the closure date the wider unit liability had

risen to £5,000/MW, the generator would only be liable to pay £4,000/MW * 150MW * 50% = £300k on closure.

The difference in liability before and after closure notification is illustrated in the following graphs.



Pre-Commissioning Users

Beyond four years prior to commissioning, a pre-commissioning User's liability increases annually from £1/kW by £1/kW and is not linked to either the attributable or wider liability values. This continues to a maximum of £3/kW unless the project only has four years left until commissioning. Once only four years remain until commissioning, users are liable for a proportion of **the sum of their wider liability and their attributable liability**. This proportion is dependant on the number of years until their commissioning date and rises in 25% increments as shown in the following table.

Duration until Commissioning	**Proportion of Total Liability**
Between 3 and 4 years	25%
Between 2 and 3 years	50%
Between 1 and 2 years	75%
Less than 1 year	100%

For example, a 100MW generator with a attributable liability of £1M connecting in a zone where the wider liability is £1000/MW would have a maximum liability of £1M+(100*1000) = £1.1M. If they cancelled between 3 and 4 years until commissioning, they could be liable for 25% * £1.1M = £0.275M.

The security arrangements that Users are required to use is as per National Grid's current credit arrangements, but the amount of the liability that this security is required to cover is reduced depending on whether or not they have achieved certain consenting milestones. These reductions are based on an assessment by the TO of the percentage of new projects which cancel before consents and after consents, and will be reviewed annually. The table below shows the current assessment which is based on data between 2007 and 2011. For the avoidance of doubt, this reduction only applies within the four year pre-commissioning user commitment period.

Stage of Generation Project	Security as a Percentage of Annual Liability
Pre-Consents	42%
Post-Consents	10%

A generator moves from pre-consents to post-consents for the financial year after they have demonstrated to the TO that they have achieved their relevant key consents.

For example, a generator 7 years prior to commissioning will have a liability of £1/kW and will have to provide security against that, whilst a generator without consents and 3 to 4 years from commissioning will have a liability of 25% * (Attributable liability + Wider liability) and will have to provide a security based on 42% of that liability.

Version	Date Published	Changes
1.0	27/5/11	Initial Version
1.1	2/6/11	Change zonal mapping table; minor corrections
1.2	17/6/11	Change to a specific LARF for attributable, clarified definition of charging base, removed reference to securities for post-commissioning users, changed LR CapEx to be based on increase in Required Capability 4 years hence rather than this years increase in SYS Capability, minor corrections

Annex 5 – Fairwind Orkney Detailed Alternative Submission

CMP 192
Workgroup Alternative Modification (D.WACM3.)
(Treatment of 'Attributable' connections)
[WG member Dennis Gowland (FOL)]

Summary
Proposed by a Workgroup member

Perceived defect in the Original CMP192

The CMP192 Original proposes that Wider works would share liability 50/50 with the consumer, whilst Attributable (transmission) works would not share and generators would be liable for 100% of the calculated forecast CapEx (after revisions for asset re-use).

The current interim position (offered as an alternative to Final Sums -FSL), IGUCM, uses TNUoS as a proxy for Capital Spend (CapEx) for Attributable works (as Wider has currently no liability under a moratorium) where 50% sharing with the consumer is factored in. The FSL regime currently available assumes 100% liability on the generator.

The Original has proposed that Attributable transmission works (as defined -CUSC section 14 – as 'Local' works is based on the charging definition now in the CUSC: greater than 4 transmission circuits, or 2 or more transmission circuits at a GSP.') should be treated as, in effect, 'sole user' assets and, thus, have a limited benefit to the wider generating community and consumers.

The 100% loading of Liability for Attributable works could provide an unreasonable barrier to entry for new entrants in some parts of the system.

The Workgroup report (Sections 4.38 – 4.47) outlines aspects of risk sharing with the consumer with some examples of the proportion of sharing between generation and demand.

The Alternative proposal

That Attributable works should not be differentiated from Wider works insofar as the sharing aspect of the liability with consumers.
In the current proposal the sharing factor for Wider is 50/50, in which case Attributable would also be 50/50.

Justification

Amongst the objectives of Project 'TransmiT' is the need to reduce the barrier to entry for generators to the UK transmission system whilst avoiding excessive risk to the consumer. If barriers are not being reduced (and even raised) and particularly for those in areas identified as being of importance for achieving UK and EU targets for renewables, then there is a mismatch. This alternative goes some way to re-balance things and to reinstate the 50% sharing factor which is currently offered to Attributable connection in the interim IGUCM.

Some 'Attributable' works begin to look like 'Wider' when they connect more than one generator and where they share with demand. Some Attributable works, once completed, may then become 'Wider' for later connections since they may constitute a node with more than 4 transmission circuits or a GSP with at least 2 transmission circuits. It is difficult to understand in these cases how a new entrant triggering a reinforcement of

the UK grid leading to an extension of the MITS should be treated differently to a party connecting to an existing MITS node.

In Section 3.5 of the Report, the Proposer sets out 8 considerations behind the Original – item 6 is 'Level of Capacity Sharing between Power Stations'. The author of this alternative believes that this consideration has only been partially addressed in the proposal (section 3.13) by using a simple ratio of a capacity as a means to mitigate liability on any one generator. Sharing of 'Attributable' assets (on common with 'Wider') reduces the risk of asset stranding, should one of the parties fail to complete its project, and should be considered in the background when proposing to share risk with the consumer.

The report –in sections 4.38 – 4.47 describes 'Share of Risk between Generation and Demand'. It sets out an example for wider sharing of 50/50 with demand, which would add 10p per annum to electricity bills of domestic consumers if 5% of transmission assets were under-utilised or 20p if 10% (compared to 0% at present). If 'Attributable' transmission assets were added to the global CapEx total at the same level of sharing (50%) with demand then the impact on consumers would be an additional 3.2p or 6.4p per annum at 5% and 10%, asset stranding, respectively. If the £160m savings (below) are factored in this reduces to 2.2p and 4.4p respectively.

New entrants, including a mix of generating technologies offer a diversity of supply. Those connecting renewables offer a –cheaper and more stable long -term fuel cost element to consumer electricity bills. For example (section 4.42) a contribution of 2 GW of high merit generation including renewables connected could impact on energy prices – with an estimated saving of £80m per annum to consumers in electricity bills and a further £80m per annum saving on Carbon price (section 4.45).

The proportion of a typical electricity bill for consumers driven by fuel cost against that driven by transmission cost is significantly higher and ore volatile. For instance in the area served by Scottish Hydro Electric Transmission Ltd –SHETL (in their RIIO white paper June 2011) the company –estimated that transmission costs were £0.38p per household in 2010 rising to £1.20 in 2020, after significant reinforcement to connect new generation. Counting in all UK bills Transmission amount – scaled up - would equate to around £13 per annum at 2020. The fuel drivers are much bigger -just one increase (June 2011) in bills due to increased gas price estimated at £42 per household.

If barriers to entry are lowered it would allow more competition with a wider diversity of users more likely. – This is contrasted with the consequence of high barriers where fewer, and large players, could cope with these, thus reducing competition with a potential impact on energy prices for consumers.

The extension of the Transmission System (Attributable works) to accommodate Islands and Offshore generation would tap into wider weather systems than those typically active the UK mainland, thus reducing the overall intermittent effect of wind on the system. There would be a further benefit to diversity and, ultimately, security of supply by bringing on stream new technologies such as wave and tidal generation.

On Islands where there is demand and no cable link – such as Shetland – new, Attributable connections would remove the need to use the existing diesel, thereby giving a more secure supply to demand and reducing CO2 emissions. Some allowance would need to be made for stand-by, for the diesel Power Station.

Sustainability, Scottish, UK and EU targets - though not necessarily part of the CUSC - must be taken note of by OFGEM.

It is accepted that this Alternative, in not seeking to differentiate Attributable works will include a proportion of Sole user assets within the sharing regime. The following table is

taken from National Grid's contribution within the report, showing the part of CapEx attributable to 'Attributable' works – which equates to about 1/3 of total CapEx spend on the system – before revision due to asset re-use.

(From CMP 192 report)

£M	2011	
	Final Sums	285
Interim Arrangements	IGUCM	225
	Total	**510**
	Attributable	420
CMP192	Wider	43
	Total	**463**

Whilst some new generation will have a higher proportion of Wider compared to Attributable works –and thus associated forecast CapEx liability – others will have a very high Attributable to Wider proportion, for one Scottish Island group this would be in excess of 23:1 (compared with 15:1 under the interim IGUCM). This should be compared to the typical proportion in England and Wales of less then 5:1, and in many cases would be even lower at about 2:1.

Example

This is based on a £200M (CapEx) 'Attributable' connection TEC 300MW to Wider at Zone 1 with an estimate Wider liability (under the CMP192 original strawman calculation from Zonal/Boundary) of around £6.9M. After adjustments made for asset re-use the Attributable liability would be £160M.

Other aspects

In all other respects, this Alternative follows the CMP192 Original as proposed (following WG discussion).

Dennis Gowland
18.07.11

Annex 6 – Impact Assessment of Original Proposal

This analysis was undertaken by the Proposer at the end of the Workgroup process, and as such was not fully reviewed by the Workgroup prior to publication of the Workgroup Report. As such, it is presented in this annex as an aide to consultation responses, but does not form part of the formal Workgroup discussions.

The impact of the CMP192 original proposal stems from both the affect on user commitment contingent liabilities and associated securities. Whilst the original proposal seeks to better align the user commitment arrangements for pre and post commissioning generators with transmission investment timescales, the effect will be different for these two classes of network user.

Pre-Commissioning

For pre-commissioning users the level of user commitment liabilities under the original proposal are calculated in a similar manner to the current IGUCM methodology, but based on actual CAPEX rather than a multiple of TNUoS. Beyond four years prior to commissioning, a pre-commissioning user's attributable liability increases annually from £1/kW by £1/kW. This continues to a maximum of £3/kW unless the project only has four years left until commissioning. Once only four years remain until commissioning, users are liable for a proportion of the sum of their wider liability and their attributable liability. This proportion is dependant on the number of years until their commissioning date and rises in 25% increments.

The security that they are required to post against this liability is as per CUSC current credit arrangements, but the level is reduced depending on whether or not they have achieved certain consenting milestones. These reductions are based on an assessment of the percentage of new projects which have cancelled before consents and after consents.

At the highest level, the total amount of user commitment for 2011 under the current interim arrangements against the original CMP192 proposal are as follows:

Table A6.1 – Overall Impact on Total User Pre Commissioning Commitment Liabilities for 2011

		2011 (£m)
Interim	Final Sums	285
	IGUCM	225
	Total	**510**
CMP192	Attributable	432
	Wider	43
	Total	**475**

These numbers demonstrate that the total amount of user commitment is therefore broadly similar under both sets of arrangements. The remainder of this document will focus on the impact of the original proposal on pre-commissioning and post-commissioning generators.

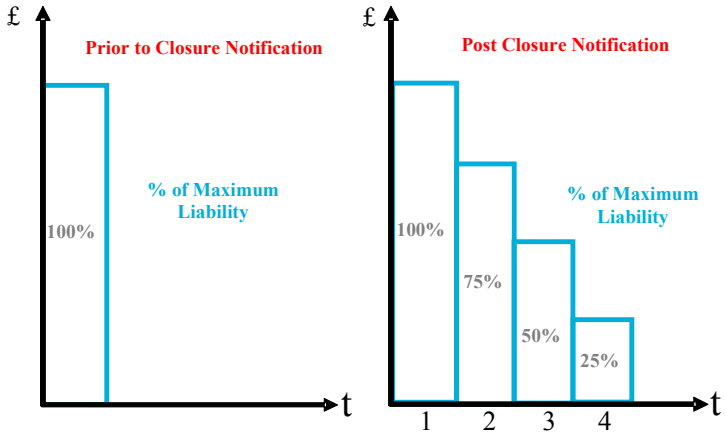
The impact of changes to pre-commissioning user commitment as a result of the original proposal under CMP192 is very similar to the status quo as far as the liability element is concerned on the whole community. The main difference is that

IGUCM currently covers wider and attributable works, where as with CMP192 original the wider works are CAPEX based and shared between pre and post commissioning generators. On an individual basis the liabilities will change due to the move from a TNUoS based to a CAPEX based methodology. The most significant differences being where TNUoS is negative or very close to zero (increasing liabilities) or where TNUoS is relatively high but there are little or no investments currently being made (reducing liabilities).

Post-Commissioning

Currently, transmission connected and large embedded generators with BEGAs operating in the GB electricity market need only provide 1 year and 5 days notice in order to reduce their Transmission Entry Capacity (TEC) rights and avoid the need to pay annual Transmission Network Use of System (TNUoS) Charges. As outlined below, this level of flexibility in operational strategy has a value to the owner as underlying fuel, CO_2 and electricity prices fluctuate over time. The original proposal for CMP192 puts forward a model that reduces the notice period for avoiding the annual TNUoS charge down to 5 days and replaces this with a closure charge at the time of plant closure, which varies depending on the predetermined zonal CAPEX and the amount of notice provided out to 4 years. This is shown diagrammatically, below.

Figure A6.1 – Zonal CAPEX Liability per Closure Notice Period



The table, below, summarises existing post commissioning liabilities for generators along side those proposed under CMP192.

Table A6.2 – Existing vs. CMP192 Original Closure Liabilities

	Existing	**CMP192**	
Effective **TNUoS** notification period	1 year + 5 days	5 days	
Closure Charge (Zonal CAPEX liability)	0	<1yr < 2yrs < 3yrs <4yrs >4yrs	100% 75% 50% 25% 0%

The zonal CAPEX liability is calculated using changes to capacity on network boundaries from the Seven Year Statement (SYS) and therefore is done on the basis of SYS zones, rather than generation TNUoS zones. Generators in 1 of 20 TNUoS zones may therefore fall into different SYS zones, due to the zonal misalignment. However, in a large number of cases generators in a given TNUoS

zone can be mapped to a single SYS zone. It is therefore instructive to compare the difference between the existing 1 year + 5 days TNUoS notification period with the 5 days TNUoS notification and potential closure charge for different notification periods on a zonal basis. Given the aforementioned misalignment, the numbers shown in Table A6.3, below, are not representative for every generator and, as such, should be taken as illustrative of the zonal impact only.

The illustrative zonal numbers demonstrate that post-commissioning generators located in generation TNUoS zones with a positive TNUoS charge are generally better off than the existing arrangements for closure notice periods of up to 2 years. This change is largely driven by the reduction of the TNUoS notice period. Conversely those generators located in negative TNUoS charging zones, that currently have no closure charge regardless of notification period, are worse off for all notice periods up to 4 years due to a level of user commitment liability calculated through the zonal CAPEX approach. Generators providing > 4 years notice of closure will be unaffected.

For the avoidance of doubt a generator's exposure to the zonal CAPEX liability reduces over the 4 year period to closure under the original proposal. Therefore, if such arrangements were to be implemented, an incentive to provide additional notice within the 4 year period still exists and all generators would be better off giving more rather than less notice (i.e. there is no incentive to provide 2 rather than 3 years notice; all else being equal). In addition, a generator located in a positive TNUoS zone is liable to pay the annual tariff. Therefore, a generator is unlikely to opt to pay TNUoS for 4 years to avoid a liability that is approximately twice TNUoS.

Table A6.3 – Illustration[34] of Zonal Difference in CMP192 vs. Existing £/kW Closure Charge

Generation	Notice Period			
TNUoS Zone	Up to 1 year	Up to 2 years	Up to 3 years	Up to 4 years
1	-2.82	-3.26	12.16	6.08
2	-2.02	-6.46	8.87	4.44
3	1.38	-4.70	12.16	6.08
4	-0.17	-4.67	9.01	4.50
5	-0.76	-4.08	6.64	3.32
6	-6.07	-8.11	4.08	2.04
7	-5.22	-7.05	3.67	1.84
8	-4.94	-6.77	3.67	1.84
9	-2.36	-3.16	1.61	0.81
10	-3.44	-4.80	2.71	1.35
11	-4.54	-5.01	0.94	0.47
12	-3.84	-4.31	0.94	0.47
13	-2.40	-2.78	0.75	0.38
14	-0.80	-1.03	0.46	0.23
15	0.21	-0.02	0.45	0.23
16	0.92	0.69	0.46	0.23
17	-0.23	-0.34	0.22	0.11
18	0.90	0.68	0.45	0.23
19	2.84	2.13	1.42	0.71
20	10.84	8.13	5.42	2.71

[34] Numbers are illustrative in nature due to zonal misalignment

The illustrative numbers in Table A6.3 represent the difference between existing and proposed generation closure charges on a £/kW basis for different closure notice periods and generation TNUoS zones. As an example, a generator located in TNUoS zone 10 (SYS zone 7), paying a TNUoS tariff of ~£8.86/kW in 2011/12 will need to pay an additional year of TNUoS on top of the that paid for the year of operation for up to 1 year of notice under the current arrangements. Under the original proposal for CMP192, this same generator would have to pay 100% of the zonal CAPEX liability of ~£5.42/kW in addition to TNUoS for the year of operation. Hence, the table shows a difference of 8.86 – 5.42 = £3.44/kW for up to 1 year of notice. For up to 3 years of notice, there is no additional TNUoS liability under the current arrangements. Under the original proposal for CMP192, a liability of 50% of the total zonal CAPEX liability is due, equal to ~£2.71/kW. Hence, this illustrative generator would be £2.71/kW worse off when providing up to 3 years of notice. For TNUoS zone 20, the numbers represent the difference between no user commitment (i.e. additional TNUoS charge collared at £0/kW) and 100%, 75%, 50% or 25% of zonal CAPEX liability for that zone.

In order to investigate the impact on an individual generator of the original proposal, analysis is undertaken on an example generator within generation *TNUoS zones 10 and 20*. The approach and the results of this are outlined, below.

Generators as Call Options

When making a decision on whether or not to continuing operating an electricity generator, it is beneficial to think of the decision simply as an option to exchange a fuel, such as gas or coal, for electricity at some time in the future. One can then implement methods originating from financial option analysis, so called 'real' options, to make an informed investment decision. In contrast with a traditional discounted cash flow method, where future cost and revenues are forecasted, real option valuation utilises the current market state, a range of future possible outcomes, and incorporates flexibilities in future decisions.

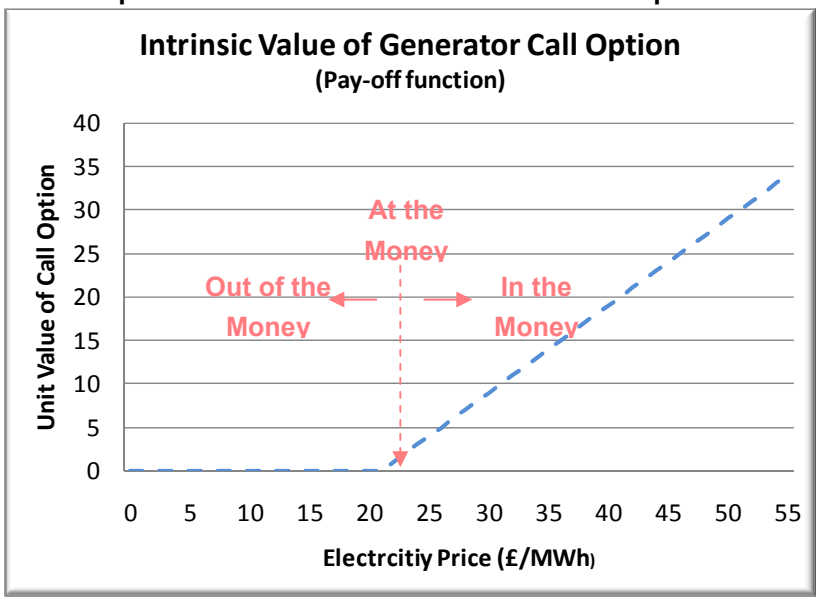
This method requires that one considers the ownership of electricity generation capacity as analogous to a series of call options, where each option gives the right, but not the obligation, to acquire (generate) electricity by paying the necessary exercise costs (a generator's short-run marginal cost) at a specific time in future. It is not an obligation as the owner may decide not to generate electricity if it is not profitable to do so. The value of such a call option is comprised of both an intrinsic value (i.e. its value for a given spark spread at some time in the future – the option expiry) and a time value.

The total short-run marginal cost of operating the generator to produce 1 MWh of electricity is the exercise price of the option. At each market period, depending on the price of electricity at the time, the profit will be at least zero. Of crucial importance is an understanding that it will never be less than zero as when the electricity price is less than the cost of generation the plant will not run. Figure A, below, illustrates the payoff from a call option on each market period[35]. In this example a conventional generator is used with input costs of 10 £/MWh for fuel +

[35] For simplicity, input costs have been held constant for this illustration.

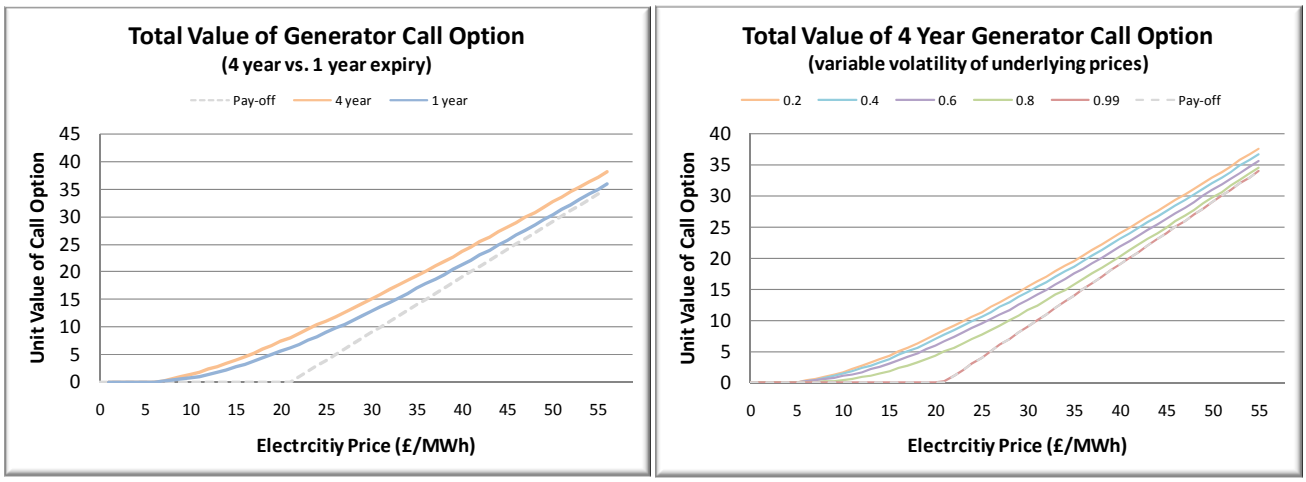
10 £/MWh for CO_2 + 2 £/MWh for variable operational and maintenance costs = 22 £/MWh (at this point the option is said to be "at the money"). Therefore, as the electricity price hits 22 £/MWh in a given market period the pay-off of the option begins to increase linearly with the electricity price (the option is now said to be "in the money").

Figure A6.2 – Example of Intrinsic Value of a Generator Call Option



As the generator will not generate if the option is "out of the money", a rise or fall in electricity prices in the future does not affect the value of the generating capacity equally. For a current market price of 22 £/MWh (i.e. "at the money") and a 50 % chance in future that the electricity price falls below the current market price, there is a 50% chance that the future value of the option will be zero[36]. However, there also remains a 50% chance that the electricity price will rise above the current level. Taking an average of all possible future outcomes thus leads to the conclusion that the current value of the option is greater than zero (i.e. greater than the intrinsic value). This is illustrated, below, for an option with both 4 and 1 years left till expiry.

Figure A6.3 – Illustration of Total Value of Generator Call Option Varied by Expiry and Underlying Volatility of Prices



[36] The 50/50 chance of profitability assumes that the movement of future electricity prices follows what is known as a random walk.

The two most important factors affecting the value of an option (generation capacity in this case) are the remaining time to expiry and the volatility of the underlying exercise price (fuel + CO_2) and electricity price of the option (also illustrated above).

The effect on the option value of a change in user commitment requirements is one of altering the time value component. A generator with complete flexibility would simply choose not to operate if the spark spread was insufficient to be 'in the money', thus avoiding all possible futures with a negative revenue outcome. However, the introduction of any form of user commitment naturally results in less possible future outcomes that are 'in the money', thus reducing the option value of the generator (i.e. some possible future outcomes can have a value less than zero).

Impact Assessment on Average Individual Generator

The original proposal under CMP192 replaces the existing contingent closure liabilities with a different set of liabilities over a different period of time (as outlined in Table A6.2, above). A simple, illustrative model has been used to determine the difference in the option value (and hence closure decision) of a generator with the existing user commitment arrangements, versus one with those proposed under the original CMP192 proposal. This example utilises a set of input assumptions for a generator, randomly generated fuel, CO_2 and electricity prices within a uniform distribution[37] (with a worst case assumption of no correlation between these elements) and other relevant costs to quantify this difference in option value. The input assumptions used are based on those of average CCGT and are shown in the table, below.

[37] The use of a uniform distribution is a conservative simplification

Table A6.4 – Input Assumptions for Individual Generator Analysis

Variable	*unit*	*value*
Plant economics		
FOM	£/kW/yr	2
Plant efficiency	%	0.55
VOM (2) + BSUoS (1.5)	£/MWh	3.5
Plant size	MW	500
Average availability factor	%	0.85 or 0.2
Availability factor uniform distrib band width	%	0.10
Carbon intensity	tCO2/MWh	0.36
Discount rate	%	0.10
Market		
Fuel expected price	£/MWh	20
Fuel uniform distrib band width	£/MWh	20
CO2 expected price	£/t	15
CO2 uniform distrib band width	£/t	15
Average Wholesale Price	£/MWh	45
Wholesale unifrom distrib band width	£/MWh	20
Transmission Costs		
Use of System Charges		
TNUoS (SYS Zone 7 - Charging Zone 10)	£/kW/yr	10
TNUoS (SYS Zone 17 - Charging Zone 20)	£/kW/yr	-7
User Commitment		
Value at Risk (SYS Zone 7 CAPEX)	£/kW	8
Value at Risk (SYS Zone 17 CAPEX)	£/kW	12
CAPEX profile (Cancelation with X Years notice)		
< 1 Year	%	1
1 - 2 Years	%	0.75
2 - 3 Years	%	0.5
3 - 4 Years	%	0.25
>4 Years	%	0

The model takes these input assumptions and uses them to calculate the optimum generator running decision over a four year period. The first step is to calculate the generator revenues minus variable costs over a set of possible future years. For all of the possible calculated future outcomes, this is done by taking the randomly calculated wholesale price, multiplying times the randomly calculated availability of the plant and its size and subtracting a combination of the randomly calculated fuel price and CO_2 price (i.e. the SRMC), multiplied by the same availability factor over a year of operation. This is shown below:

Revenues – Variable Costs =
(Wholesale Electricity Price £/MWh x Availability %) –
(SRMC £/MWh x Availability %) x Plant Size MW x 8760 h

Optionality is incorporated by considering forward contracting options on an annual basis up to 4 years out from the point of delivery (i.e. from the expiry date of the option). The value of each forward contracting option is calculated separately using the equation outlined above, such that a total of 10 possible future values are calculated. When one year from option expiry only one future contracting option exists, two years from option expiry two options exists, three from expiry three options exists and four years from expiry four options exist. This optionality is illustrated in the table, below.

Table A6.5 – Optionality Matrix for Generator Revenues minus Variable Costs

		Forward Contracting Options Available			
		Yr1	Yr2	Yr3	Yr4
Years to Option Expiry	1	X			
	2	X	X		
	3	X	X	X	
	4	X	X	X	X

The model will look at each of the 4 periods of years until option expiry in turn and take the forward contracting option with the maximum return available. This results in a future value of revenues minus costs for each of the 4 years to expiry (i.e. 4 values in total).

A notional pay-off is subsequently calculated for each of the 4 periods of years until option expiry. This pay-off will take the return calculated from the optionality matrix above (i.e. 1 value for each year) and subtract the fixed operation and maintenance (FOM) and TNUoS costs for each of the 4 years. Thus a pay-off is calculated for each year.

Next, the model will make a decision as to what the optimal operational strategy (i.e. running period) is over the 4 years being investigated. This is calculated by taking the net present value (NPV) of the pay-offs over each possible operational strategy and subtracting the closure charge of the user commitment arrangements being considered.

Table A6.6 – Existing vs. CMP192 Original NPV Pay-off Calculation

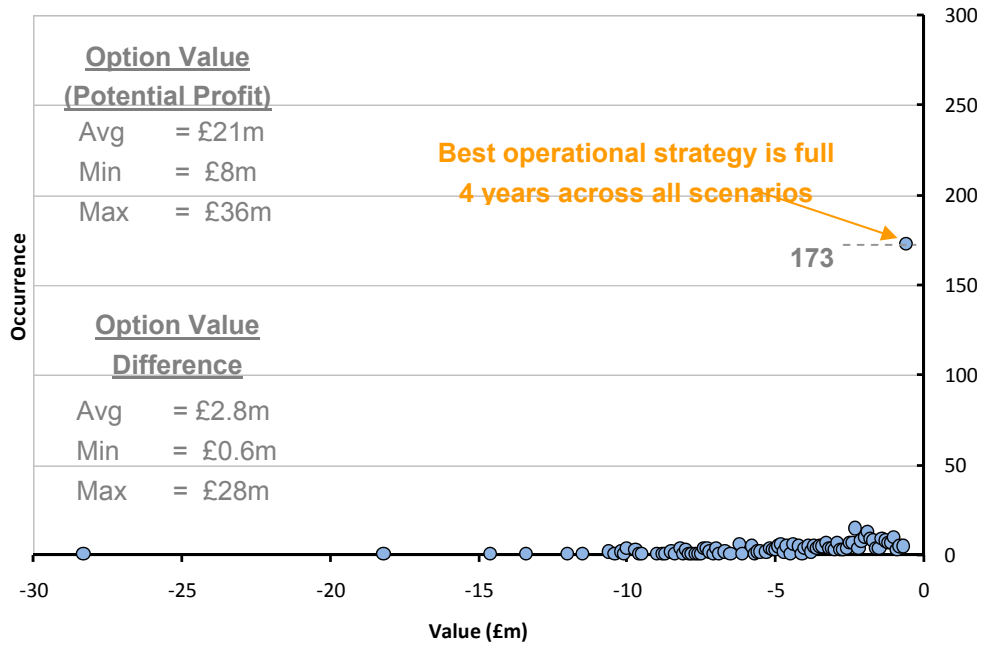
Existing	CMP192
(Pay-off Year 1 to Year 1) – (1 Year TNUoS)	(Pay-off Year 1 to Year 1) – (1 Year TNUoS) – (100% Zonal CAPEX)
(Pay-off Year 1 to Year 2) – (1 Year TNUoS)	(Pay-off Year 1 to Year 2) – (75% Zonal CAPEX)
(Pay-off Year 1 to Year 3) – 0	(Pay-off Year 1 to Year 3) – (50% Zonal CAPEX)
(Pay-off Year 1 to Year 4) – 0	(Pay-off Year 1 to Year 4) – (25% Zonal CAPEX)

The above set of calculations is undertaken for 10 separate scenarios, each with independent randomly calculated input variables where relevant. Finally, the model will look over the 10 scenarios to determine the best operational strategy on average from this set of 10 (i.e. decision on how long to stay open). The NPVs of the optimum operational strategies for both the existing user commitment arrangements and the CMP192 original are compared to obtain the difference in option value between the two.

As the difference in option value will change depending on the optimum operational strategy (i.e. depending on the number of years the generator decides to run), the model undertakes 500 iterations of the aforementioned calculations and decisions in order to provide a representative set of outcomes. These outcomes are plotted, below, for example 500MW gas generators located in both

generation TNUoS zones 10 and 20. In addition, 500 iterations of generators in these zones are also plotted for average load factors with a mean value of 20% and 85%.

Figure A6.4 – Distribution of Difference in Option Value for 500MW Gas Generator in Zone10 with Average Load Factor 20%



For Figure A6.4, above, each of the 500 dots plotted represents the number of times a given difference in option value (£m) occurs. Together these dots represent the distribution of difference in option value for the illustrative 500MW gas generator in TNUoS zone 10 with an average load factor of 20%. The average option value (potential future profits) over 4 years for this generator over the 500 iterations is £21m (in the range of £8m to £36m), given the input assumptions utilised. This compares with an average difference in option value over 4 years of £2.8m (in the range of £0.6m to £28m). In every one of the 500 iterations the option value for the generator has reduced (i.e. a negative difference in value) as a result of the implementation of CMP192. For 173 out of 500 iterations, the optimal operational strategy (i.e. number of years to stay open) was the maximum 4 years in each of the 10 scenarios modelled. This indicates that user commitment liabilities had no impact on the generator's operational strategy for these iterations. For these particular 173 iterations the difference in option value was ~£0.6m (i.e. £0 closure charge for up to 4 years notice under the current arrangements minus 500MW x 1000 x £8/kW CAPEX liability x 25% in year 4 discount back to current day).

This illustration is repeated, below, for the remaining 3 scenarios investigated. Table A6.7 summarises the outcomes of all 4 scenarios.

Figure A6.5 – Distribution of Difference in Option Value for 500MW Gas Generator in Zone10 with Average Load Factor 85%

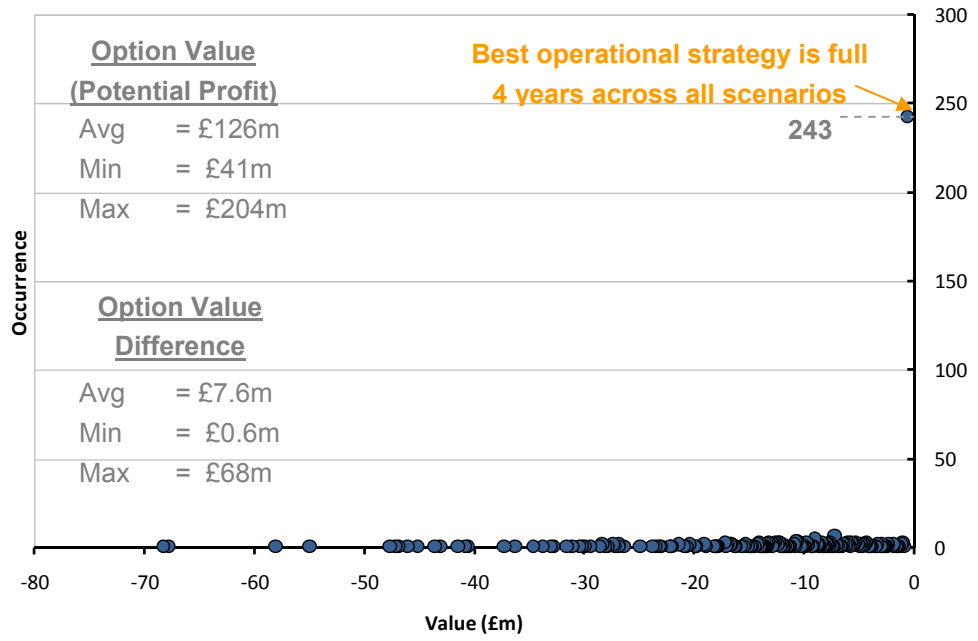


Figure A6.6 – Distribution of Difference in Option Value for 500MW Gas Generator in Zone20 with Average Load Factor 20%

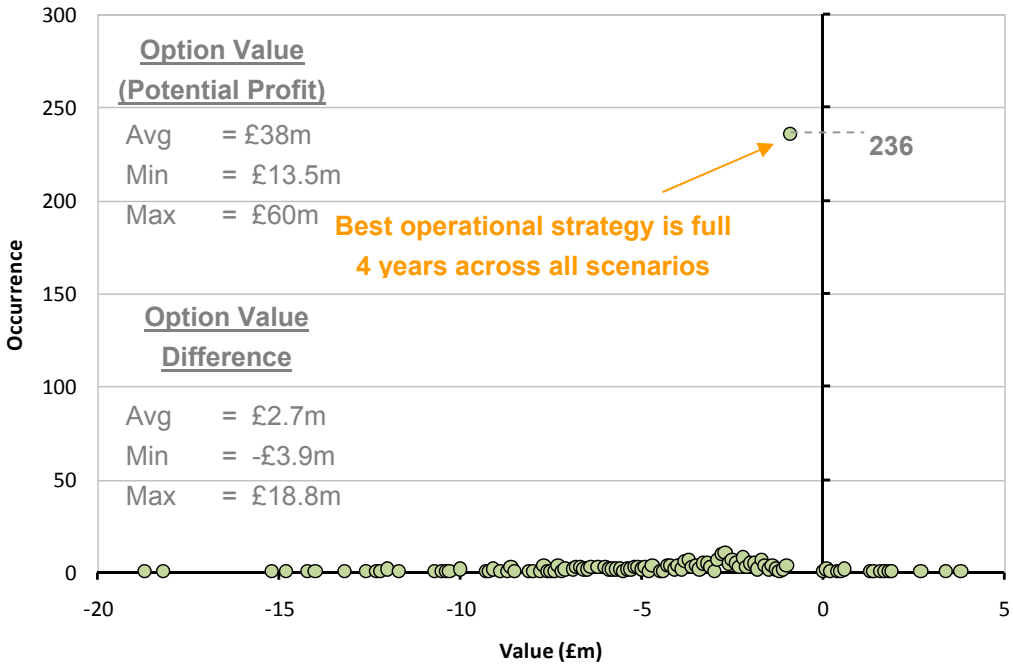


Figure A6.7 – Distribution of Difference in Option Value for 500MW Gas Generator in Zone20 with Average Load Factor 85%

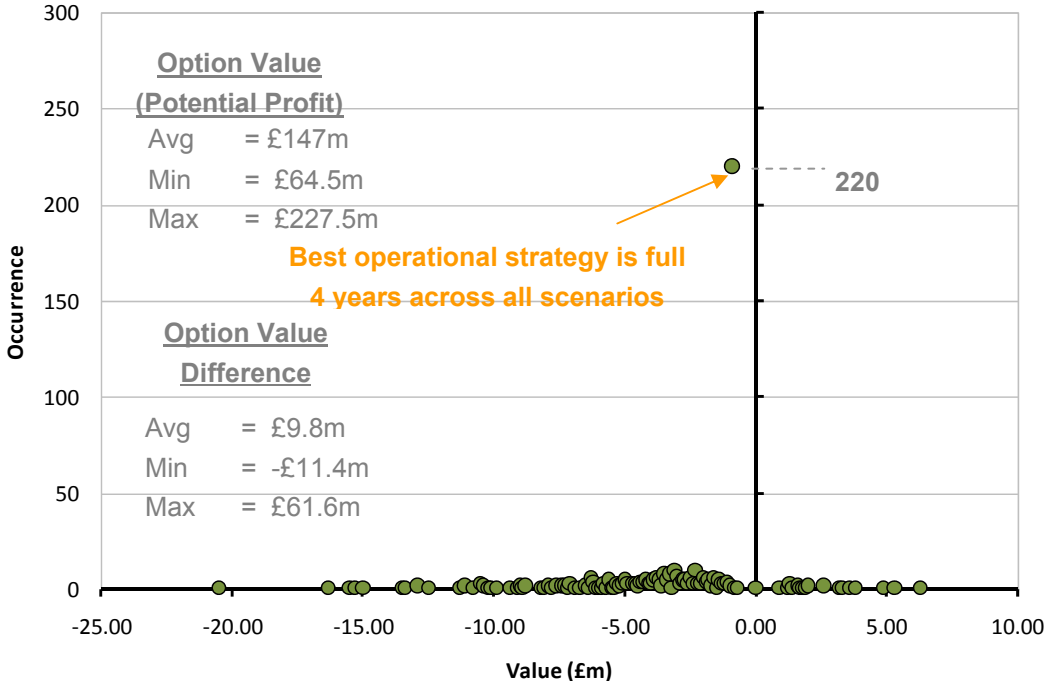


Table A6.7 – Comparison of Outcomes for Average Generator

Zone	Load Factor	Number of Iterations Strategy Unaffected	% of Total Iterations	Average 4 Year Option Value (Possible Future Profits) (£m)	Avg. Difference in Option Value (£m)	Avg. Difference % of Avg. Possible Future Profits
10	0.2	173	35	21	2.8	13%
10	0.85	243	49	126	7.6	6%
20	0.2	236	47	38	2.7	7%
20	0.85	220	44	147	9.8	7%
Average		218	44			8.25%

Table A6.7, above, compares the outcomes of the analysis for each the scenarios. From these numbers several initial observations can be made based on the input assumptions utilised:

i) In a large percentage of cases, changes proposed under the original CMP192 proposal do not affect the closure decisions of generators. In the analysis undertaken with the input assumptions made, generator operational strategies were only affected in 56% of iterations;

ii) Generators in negative TNUoS zones have a negative impact on option value across all iterations;

iii) Low load factor generators in positive TNUoS zones appear to be worst affected on average, despite the potential for a small number of outcomes with a positive impact on the option value. These generators are likely to be those providing Security of Supply;

The following section uses some of the above observations in order to create a GB wide scenario for impact assessment.

GB Impact Assessment

The potential effect of CMP 192 to the overall generation background and the consequent impacts on the electricity market, wholesale electricity prices and CO_2 emissions, has been modelled using National Grid's "Electricity Scenario Illustrator" (ELSI)[38] in conjunction with the "Gone Green" scenario.

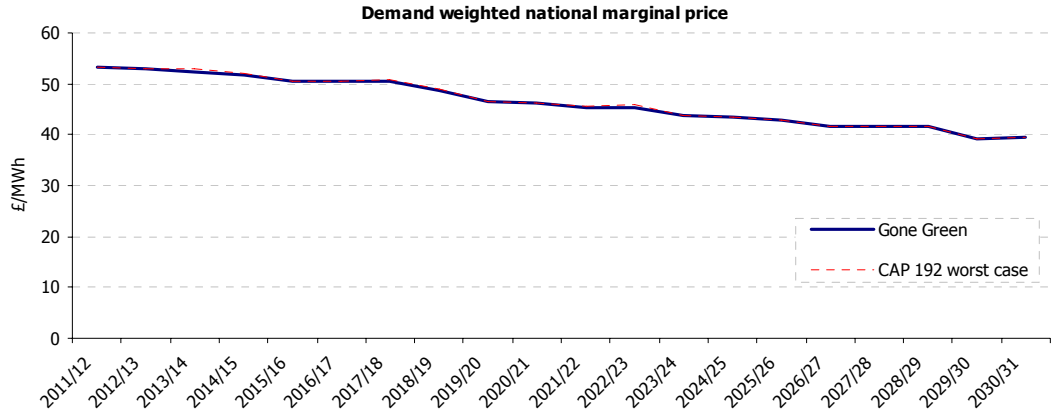
The Gone Green scenario forms the basis of the baseline in the National Grid RIIO submission and reflects latest market intelligence. This scenario represents a potential generation and demand background which meets the environmental EU targets and the unilateral UK GHG emissions target (34% reduction by 2020). It takes a holistic approach to the meeting of the targets i.e. it assumes that heat and transport will also contribute towards the environmental target of 15% of UK's energy to come from renewable sources by 2020. It therefore reflects the approach taken by the Government's Renewable Energy Strategy which identified that in order to meet this target, approximately 30% of UK's electricity will have to come from renewable sources by 2020, with a corresponding 12% from heat and 10% from transport.

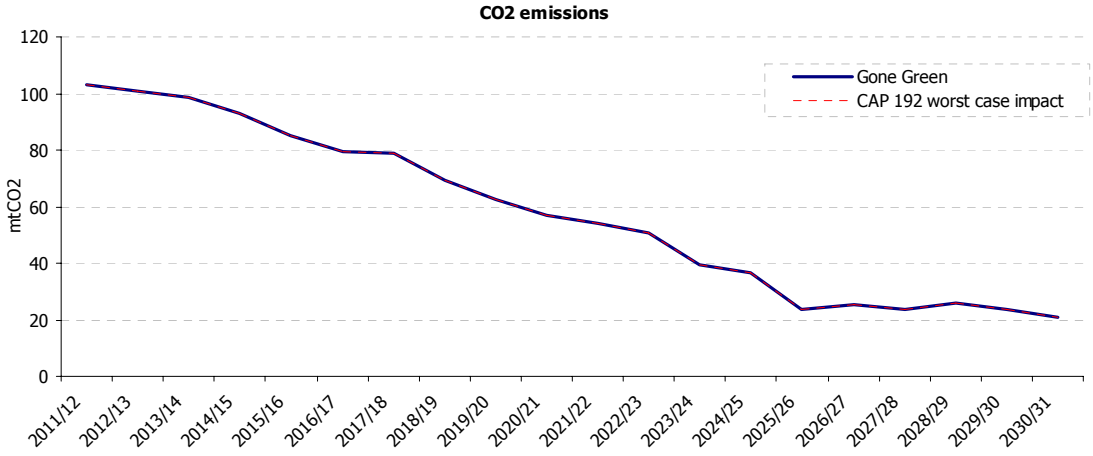
ELSI forecasts the market impact given a generation/demand background and set of economic assumptions (e.g. fuel prices, CO2 cost, VOLL, plant efficiencies etc.). These assumptions can be tailored to fit the analysis required, which in this case is to model the impact of CMP192. It models the utilisation of generation and network assets to meet consumer requirements at minimum fuel and CO2 cost (i.e. short-run costs) from the present until 2030. It can be used to examine the impacts of both generation and network investments on operating costs, equipment utilisations, CO_2 emissions and security of supply. It is inevitable that squeezing 20 years of market and network developments together with a representation of their operation into a spreadsheet requires a few simplifications, the key of which are listed below.

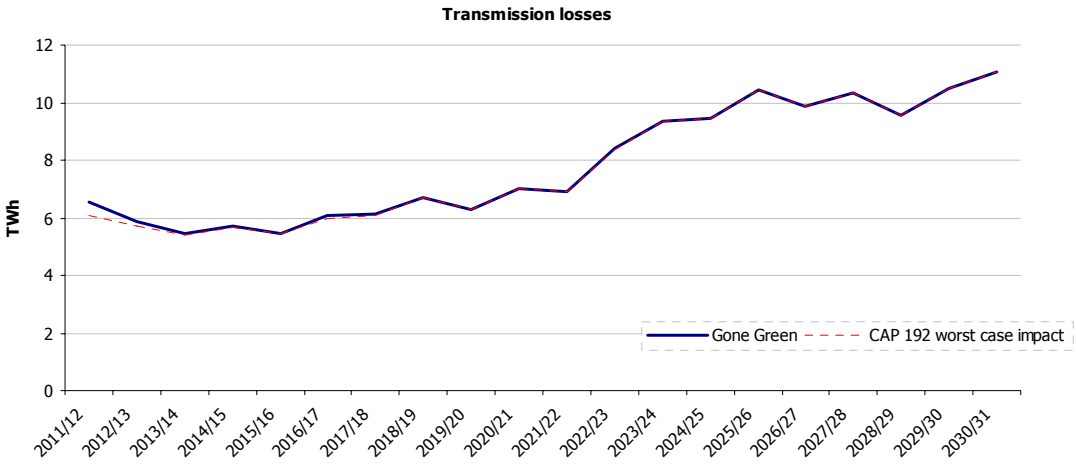
- Generator dynamic limitations are not represented (e.g. no ramp rate, minimum stable generation limits etc). This underestimates generator operating costs.
- Availabilities of generators (other than wind) are represented at average seasonal values. This underestimates network limitations.
- No time step linkage or pump storage energy limits. This can overestimate the capabilities of pump storage and lead behaviour where pump storage physical limits are exceeded.
- Assumes ideal curtailment of demand and immediate restoration, which will underestimate demand disruption.
- Limited (fixed price) modelling of European and Ireland & Northern Ireland SEM, which gives a simplistic modelling of interconnector operation.
- Simple model of network capacity reduction due to year round operation (e.g. impact of maintenance and construction outages neglected). This will underestimate network limitations.
- Network representation assumes ideal MW sharing across boundary circuits. This overestimates the effectiveness of running certain generators out of merit to alleviate network constraints.

[38] The Electricity Scenario Illustrator is available on the National Grid website at http://www.talkingnetworkstx.com/electricity1.aspx

Generation likely to be impacted by CMP192 was forecast by identifying those generator sets closing before 2020 in the gone green scenario. ELSI was run against this background to provide an indication of the relative profits and load factors of each generator. The generation impacted by CMP192 was then ordered by their relative profits and load factors to show which generators were most likely/least likely to be impacted. The previous analysis showed that for approximately 50% of the time, CMP192 does not affect a generator's operational strategy (i.e. closure date). Therefore from the identified list affected generators, the most likely 50% were assumed to be impacted by CMP192. Consequently, the worst case impact of CMP 192 would be to assume that all the generators affected by CMP192 close 2 years earlier than in the gone green scenario. In total this amounts to 25GW of early generation closures, spread over 9 years. The figures below show the resultant impact to consumers on annual demand weighted national marginal price, CO2 emissions and losses. It shows that the potential impact of CMP192 is minimal on wholesale electricity price, CO_2 emissions and losses because the generation units most likely to be affected run at low load factors and therefore the difference when they are removed is limited.






Transmission losses
TWh
12
10
8
6
4
2
0
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
2017/18
2018/19
2019/20
2020/21
2021/22
2022/23
2023/24
2024/25
2025/26
2026/27
2027/28
2028/29
2029/30
2030/31
Gone Green
CAP 192 worst case impact

Annex 7 – Results of Workgroup Vote

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Adam Sims	National Grid

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	Yes	Improves governance of methodology, incentivises timely information provision.
1	Yes	Improves governance of methodology, incentivises timely information provision.
2	Yes	Improves governance of methodology, incentivises timely information provision.
3	Yes	Improves governance of methodology, incentivises timely information provision.
4	Yes	Improves governance of methodology, incentivises timely information provision.
5	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
6	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
7	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
8	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
9	Yes	Improves governance of methodology, incentivises timely information provision.
10	Yes	Improves governance of methodology, incentivises timely information provision.
11	Yes	Improves governance of methodology, incentivises timely information provision.
12	Yes	Improves governance of methodology, incentivises timely information provision.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	Yes	Lower barriers to new entrants
1	Yes	Lower barriers to new entrants
2	Yes	Lower barriers to new entrants
3	Yes	Lower barriers to new entrants
4	Yes	Lower barriers to new entrants
5	No	Whilst it could lower barriers to new entrants, the different treatment of liabilities between pre and post may have a negative impact on competition
6	No	Whilst it could lower barriers to new entrants, the different treatment of liabilities between pre and post may have a negative impact on competition
7	No	Whilst it could lower barriers to new entrants, the different treatment of liabilities between pre and post may have a negative impact on competition
8	No	Whilst it could lower barriers to new entrants, the different treatment of liabilities between pre and post may have a negative impact on competition
9	Yes	Lower barriers to new entrants
10	Yes	Lower barriers to new entrants
11	Yes	Lower barriers to new entrants
12	Yes	Lower barriers to new entrants

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Merel van der Neut Kolfschoten	Centrica

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	The 4 year notice period for post-commissioning generators is a disproportionate, potentially discriminatory and could have a negative impact on competition and security of supply. This disadvantage is not outweighed by the advantage of codification of pre-commissioning user commitment arrangements.
1	No	See above under Original.
2	No	See above under Original.
3	No	See above under Original.
4	No	See above under Original.
5	No	Investor certainty is essential to ensure investment and competiton in generation. This proposal does not include grandfathering of existing arrangements.
6	No	See under 5.
7	**Yes**	Our current view is that - on balance - the benefits of reduced liability and/or security for pre-commissioning generators outweigh the concerns we have with the proposed CAPEX methodology. This option facilitates competition and also has the benefit of codifying the user commitment arrangements for pre-commissioning generators.
8	**Yes**	See under 7.
9	No	See under 5.
10	No	See under 5.
11	**Yes**	See under 7.
12	**Yes**	See under 7.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	See above under Original.
1	No	See above under 1.
2	No	See above under 2.
3	No	See above under 3.
4	No	See above under 4.
5	No	See above under 5.
6	No	See above under 6.
7	**Yes**	See above under 7.
8	**Yes**	See above under 8.
9	No	See above under 9.
10	No	See above under 10.
11	**Yes**	See above under 11.
12	**Yes**	See above under 12.

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Garth Graham	SSE

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:

(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and

(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC. However, this betterment is not sufficient to outweigh the substantial detriment to objective (b) arising from this proposal.
1	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC. However, this betterment is not sufficient to outweigh the substantial detriment to objective (b) arising from this proposal.
2	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC. However, this betterment is not sufficient to outweigh the substantial detriment to objective (b) arising from this proposal.
3	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC. However, this betterment is not sufficient to outweigh the substantial detriment to objective (b) arising from this proposal.
4	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC. However, this betterment is not sufficient to outweigh the substantial detriment to objective (b) arising from this proposal.
5	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
6	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
7	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
8	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
9	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
10	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
11	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
12	Yes	There is a minor betterment (of applicable objective (a)) arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	The introduction of a four year notice period for post commissioning generators would have a substantially detrimental impact on competition in the generation and supply of electricity, and would not facilitate such competition for the reasons set out in the working group report.
1	No	The introduction of a four year notice period for post commissioning generators would have a substantially detrimental impact on competition in the generation and supply of electricity, and would not facilitate such competition for the reasons set out in the working group report.
2	No	The introduction of a four year notice period for post commissioning generators would have a substantially detrimental impact on competition in the generation and supply of electricity, and would not facilitate such competition for the reasons set out in the working group report.
3	No	The introduction of a four year notice period for post commissioning generators would have a substantially detrimental impact on competition in the generation and supply of electricity, and would not facilitate such competition for the reasons set out in the working group report.
4	No	The introduction of a four year notice period for post commissioning generators would have a substantially detrimental impact on competition in the generation and supply of electricity, and would not facilitate such competition for the reasons set out in the working group report.
5	Yes	The addition of FSL (no 1,2,3 £/kW) option and 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
6	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) and 50% sharing for all local reinforcements where demand is existing or planned at the site in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
7	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) and grandfathering option for pre-commissioning in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
8	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%), grandfathering option for pre-commissioning and 50% sharing for all local reinforcements where demand is existing or planned at the site in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
9	Yes	The addition of FSL (no 1,2,3 £/kW) option and 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
10	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) and 50% sharing for all local reinforcements where demand is existing or planned at the site in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
11	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) and grandfathering option for pre-commissioning in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
12	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%), grandfathering option for pre-commissioning and 50% sharing for all local reinforcements where demand is existing or planned at the site in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Louise Schmitz	EDF Energy

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	While the intent of the proposer is to improve efficiency of transmission system investment the notice periods for transmission system exit are not achievable be generation and in practice CUSC Objective (a) will not be improved
1	No	While the intent of the proposer is to improve efficiency of transmission system investment the notice periods for transmission system exit are not achievable be generation and in practice CUSC Objective (a) will not be improved
2	No	While the intent of the proposer is to improve efficiency of transmission system investment the notice periods for transmission system exit are not achievable be generation and in practice CUSC Objective (a) will not be improved
3	No	While the intent of the proposer is to improve efficiency of transmission system investment the notice periods for transmission system exit are not achievable be generation and in practice CUSC Objective (a) will not be improved
4	No	While the intent of the proposer is to improve efficiency of transmission system investment the notice periods for transmission system exit are not achievable be generation and in practice CUSC Objective (a) will not be improved
5	Yes	A two year notice is as the current baseline which will be improved with respect to Objective (a) as having user commitment arrangements in the CUSC will improve transparency and governance enabling more efficient behaviour by the licensee
6	Yes	A two year notice is as the current baseline which will be improved with respect to Objective (a) as having user commitment arrangements in the CUSC will improve transparency and governance enabling more efficient behaviour by the licensee
7	Yes	A two year notice is as the current baseline which will be improved with respect to Objective (a) as having user commitment arrangements in the CUSC will improve transparency and governance enabling more efficient behaviour by the licensee
8	Yes	A two year notice is as the current baseline which will be improved with respect to Objective (a) as having user commitment arrangements in the CUSC will improve transparency and governance enabling more efficient behaviour by the licensee
9	Yes	A two year notice is as the current baseline which will be improved with respect to Objective (a) as having user commitment arrangements in the CUSC will improve transparency and governance enabling more efficient behaviour by the licensee
10	Yes	A two year notice is as the current baseline which will be improved with respect to Objective (a) as having user commitment arrangements in the CUSC will improve transparency and governance enabling more efficient behaviour by the licensee
11	Yes	A two year notice is as the current baseline which will be improved with respect to Objective (a) as having user commitment arrangements in the CUSC will improve transparency and governance enabling more efficient behaviour by the licensee
12	Yes	A two year notice is as the current baseline which will be improved with respect to Objective (a) as having user commitment arrangements in the CUSC will improve transparency and governance enabling more efficient behaviour by the licensee

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	A four year notice period for generators is not achievable and consequently there are risks that a change from the baseline has a deterimental impact on competition
1	No	A four year notice period for generators is not achievable and consequently there are risks that a change from the baseline has a deterimental impact on competition
2	No	A four year notice period for generators is not achievable and consequently there are risks that a change from the baseline has a deterimental impact on competition
3	No	A four year notice period for generators is not achievable and consequently there are risks that a change from the baseline has a deterimental impact on competition
4	No	A four year notice period for generators is not achievable and consequently there are risks that a change from the baseline has a deterimental impact on competition
5	Yes	A two year notice period is aligned with the baseline, there may be improvements against applicable objective (b) by providing a more cost-reflective liability signal to generators based on transmission capex
6	Yes	A two year notice period is aligned with the baseline, there may be improvements against applicable objective (b) by providing a more cost-reflective liability signal to generators based on transmission capex
7	Yes	A two year notice period is aligned with the baseline, there may be improvements against applicable objective (b) by providing a more cost-reflective liability signal to generators based on transmission capex
8	Yes	A two year notice period is aligned with the baseline, there may be improvements against applicable objective (b) by providing a more cost-reflective liability signal to generators based on transmission capex
9	Yes	A two year notice period is aligned with the baseline, there may be improvements against applicable objective (b) by providing a more cost-reflective liability signal to generators based on transmission capex
10	Yes	A two year notice period is aligned with the baseline, there may be improvements against applicable objective (b) by providing a more cost-reflective liability signal to generators based on transmission capex
11	Yes	A two year notice period is aligned with the baseline, there may be improvements against applicable objective (b) by providing a more cost-reflective liability signal to generators based on transmission capex
12	Yes	A two year notice period is aligned with the baseline, there may be improvements against applicable objective (b) by providing a more cost-reflective liability signal to generators based on transmission capex

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Dennis Gowland	Fairwind Orkney Ltd

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline*** ?	What is the main reason for your view?
Original	Yes	More certainty - places arrangements in the CUSC
1	Yes	as above
2	Yes	as above
3	Yes	as above
4	Yes	as above
5	Yes	as above
6	Yes	as above
7	Yes	as above
8	Yes	as above
9	Yes	as above
10	Yes	as above
11	Yes	as above
12	Yes	as above

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline*** ?	What is the main reason for your view?
Original	Yes	Reduces barriers to entry -better enables competition
1	Yes	as above
2	Yes	as above
3	Yes	as above
4	Yes	as above
5	Yes	as above
6	Yes	as above
7	Yes	as above
8	Yes	as above
9	Yes	as above
10	Yes	as above
11	Yes	as above
12	Yes	as above

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Helen Snodin	Vattenfall

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:

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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	Yes	On the basis that it puts a methodology in the CUSC, spreads liabilities pro-rata between pre and post commissioning generation and mitigates the cost of posting security, on balance this better meets the objective. However the treatment of local works results in generators sponsoring infrastructure that becomes wider MITS with a 100% contribution, which is unfair compared to post-commissioning generators and deviates from current treatment under IGUM.
1	Yes	Capping 1,2,3 is an improvement as improves the intent of 1,2,3 to be meaningful contribution at pre-construction stage.
2	Yes	Grandfathering and 50% treatment on local where there is demand mitigates the Original treatment of local.
3	Yes	Grandfathering the FSL "Option 3" and IGUM will allow existing agreements signed on that basis to continue managing project on the basis that they signed up, improving investment signals.
4	Yes	Grandfathering and 50% treatment on local where there is demand mitigates the Original treatment of local.
5	Yes	Same as Alternative 1. 2 years for post-commissioning would allow time to understand the impact of the C&M decision before deciding if notice period should increase.
6	Yes	Same as Alternative 2. 2 years for post-commissioning would allow time to understand the impact of the C&M decision before deciding if notice period should increase.
7	Yes	Same as Alternative 3. 2 years for post-commissioning would allow time to understand the impact of the C&M decision before deciding if notice period should increase.
8	Yes	Same as Alternative 4. 2 years for post-commissioning would allow time to understand the impact of the C&M decision before deciding if notice period should increase.
9	No	Don't feel 2:2 has justification other than to achieve symmetry, and not sure symmetry is justified.
10	No	Don't feel 2:2 has justification other than to achieve symmetry, and not sure symmetry is justified.
11	No	Don't feel 2:2 has justification other than to achieve symmetry, and not sure symmetry is justified.
12	No	Don't feel 2:2 has justification other than to achieve symmetry, and not sure symmetry is justified.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	Yes	As above, on the basis that (b) is a subset of (a)
1	Yes	As above, on the basis that (b) is a subset of (a)
2	Yes	As above, on the basis that (b) is a subset of (a)
3	Yes	As above, on the basis that (b) is a subset of (a)
4	Yes	As above, on the basis that (b) is a subset of (a)
5	Yes	As above, on the basis that (b) is a subset of (a)
6	Yes	As above, on the basis that (b) is a subset of (a)
7	Yes	As above, on the basis that (b) is a subset of (a)
8	Yes	As above, on the basis that (b) is a subset of (a)
9	No	As above, on the basis that (b) is a subset of (a)
10	No	As above, on the basis that (b) is a subset of (a)
11	No	As above, on the basis that (b) is a subset of (a)
12	No	As above, on the basis that (b) is a subset of (a)

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Peter Waghorn	Conoco

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	Limiting choice of methodology and the application of a 4 year post-commissioning liability will not lead to a co-ordinated and efficient development of the transmision system and may deter development or retention of necessary generation. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security of liability may change compared to that when the project was initiated.
1	No	The requirement for 4 years post-commissioning notice will not lead to a co-ordinated and efficient development of the transmision system and may deter development or retention of necessary generation. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security of liability may change compared to that when the project was initiated.
2	No	The requirement for 4 years post-commissioning notice will not lead to a co-ordinated and efficient development of the transmision system and may deter development or retention of necessary generation
3	No	The requirement for 4 years post-commissioning notice will not lead to a co-ordinated and efficient development of the transmision system and may deter development or retention of necessary generation
4	No	The requirement for 4 years post-commissioning notice will not lead to a co-ordinated and efficient development of the transmision system and may deter development or retention of necessary generation
5	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes. The absence of a grandfathering mechanism is however an issue.
6	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes. The absence of a grandfathering mechanism is however an issue.
7	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes. Inclusion of grandfathering will give stability to projects in train.
8	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes. Inclusion of grandfathering will give stability to projects in train.
9	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes
10	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes
11	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes
12	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	Limiting choice of methodology and the application of a 4 year post-commissioning liability may dissuade development of projects, especially in terms of smaller projects. A requirement for 4 years notice may lead to closure decisions which are not in the wider interests of the market by reducing competition nor in term sof maionatinaing security and diversity of supply. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security of liability may change compared to that when the project was initiated.
1	No	A requirement for 4 years notice may lead to closure decisons which are not in the wider interests of the market by reducing competition nor in terms of maintaining security and diversity of supply. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security of liability may change compared to that when the project was initiated.
2	No	A requirement for 4 years notice may lead to closure decisons which are not in the wider interests of the market by reducing competition nor in terms of maintaining security and diversity of supply. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security of liability may change compared to that when the project was initiated.
3	No	A requirement for 4 years notice may lead to closure decisions which are not in the wider interests of the market by reducing competition nor in terms of maintaining security and diversity of supply.
4	No	A requirement for 4 years notice may lead to closure decisions which are not in the wider interests of the market by reducing competition nor in terms of maintaining security and diversity of supply.
5	Yes	This alternative provides choice of liability mechanism and a realistic post-commissioning period of notice and liability which should not unduly influence closure or generation retention decisions thereby maintaining more competition , diversity and greater security of supply. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security of liability may change compared to that when the project was initiated.
6	Yes	This alternative provides choice of liability mechanism and a realistic post-commissioning period of notice and liability which should not unduly influence closure or generation retention decisions thereby maintaining more competition , diversity and greater security of supply. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security of liability may change compared to that when the project was initiated.
7	Yes	This alternative provides choice of liability mechanism and a realistic post-commissioniong period of notice and liability which should not unduly influence closure or generation retention decisions thereby maintaining more competiotion , diversity and greater security of supply.
8	Yes	This alternative provides choice of liability mechanism and a realistic post-commissioniong period of notice and liability which should not unduly influence closure or generation retention decisions thereby maintaining more competiotion , diversity and greater security of supply.
9	Yes	This alternative provides choice of liability mechanism and a realistic post-commissioniong period of notice and liability which should not unduly influence closure or generation retention decisions thereby maintaining more competiotion , diversity and greater security of supply.
10	Yes	This alternative provides choice of liability mechanism and a realistic post-commissioniong period of notice and liability which should not unduly influence closure or generation retention decisions thereby maintaining more competiotion , diversity and greater security of supply.
11	Yes	This alternative provides choice of liability mechanism and a realistic post-commissioniong period of notice and liability which should not unduly influence closure or generation retention decisions thereby maintaining more competiotion , diversity and greater security of supply.
12	Yes	This alternative provides choice of liability mechanism and a realistic post-commissioniong period of notice and liability which should not unduly influence closure or generation retention decisions thereby maintaining more competiotion , diversity and greater security of supply.

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Nick Fedorkiw	Mainstream Renewable Power

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	Yes	On the basis that it puts a methodology in the CUSC, spreads liabilities pro-rata between pre and post commissioning generation and mitigates the cost of posting security, on balance this better meets the objective. However the treatment of local works results in generators sponsoring infrastructure that becomes wider MITS with a 100% contribution, which is unfair compared to post-commissioning generators and deviates from current treatment under IGUM.
1	Yes	Capping 1,2,3 is an improvement as improves the intent of 1,2,3 to be meaningful contribution at pre-construction stage.
2	Yes	Grandfathering and 50% treatment on local where there is demand mitigates the Original treatment of local.
3	Yes	Grandfathering the FSL "Option 3" and IGUM will allow existing agreements signed on that basis to continue managing project on the basis that they signed up, improving investment signals.
4	Yes	Grandfathering and 50% treatment on local where there is demand mitigates the Original treatment of local.
5	Yes	Same as Alternative 1. 2 years for post-commissioning would allow time to understand the impact of the C&M decision before deciding if notice period should increase.
6	Yes	Same as Alternative 2. 2 years for post-commissioning would allow time to understand the impact of the C&M decision before deciding if notice period should increase.
7	Yes	Same as Alternative 3. 2 years for post-commissioning would allow time to understand the impact of the C&M decision before deciding if notice period should increase.
8	Yes	Same as Alternative 4. 2 years for post-commissioning would allow time to understand the impact of the C&M decision before deciding if notice period should increase.
9	No	Don't feel 2:2 has justification other than to achieve symmetry, and not sure symmetry is justified.
10	No	Don't feel 2:2 has justification other than to achieve symmetry, and not sure symmetry is justified.
11	No	Don't feel 2:2 has justification other than to achieve symmetry, and not sure symmetry is justified.
12	No	Don't feel 2:2 has justification other than to achieve symmetry, and not sure symmetry is justified.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	Yes	As above, on the basis that (b) is a subset of (a)
1	Yes	As above, on the basis that (b) is a subset of (a)
2	Yes	As above, on the basis that (b) is a subset of (a)
3	Yes	As above, on the basis that (b) is a subset of (a)
4	Yes	As above, on the basis that (b) is a subset of (a)
5	Yes	As above, on the basis that (b) is a subset of (a)
6	Yes	As above, on the basis that (b) is a subset of (a)
7	Yes	As above, on the basis that (b) is a subset of (a)
8	Yes	As above, on the basis that (b) is a subset of (a)
9	No	As above, on the basis that (b) is a subset of (a)
10	No	As above, on the basis that (b) is a subset of (a)
11	No	As above, on the basis that (b) is a subset of (a)
12	No	As above, on the basis that (b) is a subset of (a)

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Lisa Waters	Wyre Power

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:

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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	For me this is marginal. I think the original keeps connection costs to high and the laibilities run for too long. I think the shape of the security for pre-commissioning can be difficult to securitise and thus the original is not efficient as it may result in less connection and less efficient use of the entowrk, etc. It is a good idea that the wider liabilities are more cost reflective, which should make it eassier for new parties to connect, but on balance it keeps security for connection costs too high in many cases. The only upside is that putting something in the CUSC rather than outside is better for governance. However, the ability to have cost reflective, refundable (if not spent) FSL is beter for pre-commissioning gencos. While it would be best for FLS to be in the CUSC, it is the baseline position despite sitting outside the CUSC.
1	Yes	More efficient as gives FSL option and makes it eassier for connecting parties. NG would therefore better be able to deliver an efficnet netowrk, with improved investment signals, risk sharing, etc... Also better spreads liabilities to pre and post gencos. Also this and all of the below put arrangements in the CUSC and they can thus be changed by parties.
2	Yes	As above, plus may be reasonable in some cases to put 50% on demand for local. Sharing risks between all parties as well as keeping NG responding to signals, etc…
3	Yes	As with one - FLS efficient in connection terms. Also believe grandfathering is a good principle. NG should not do anything that risks the projects that are trying to use its network.
4	Yes	as above.
5	Yes	More efficient for conecting gencos and post commissioning as reasonable share of risk will better align incentives to use network efficiently. The short time for laibilities will encoruage gencost to go on using NG's netowrk to the greater good.
6	Yes	Same arguments as 2
7	Yes	same as 3
8	Yes	same as 4
9	Yes	same as 1
10	Yes	same as 2
11	Yes	same as 3
12	Yes	same as 4

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	the size and shape of the liabilites will discourage all but those with the bigget banacle sheet from bringing new projects forward. This will creates barriers to entry and therefore be detrimental to competition. For the post commissioing plant the liabilities may also stop them investing in oth plant, improvements to existing plant, etc as they will ahve to take account on the liabilities and thus tie up working capital.
1	Yes	FLS lowers barriers to entry which in the longer term may improve competition. Cost reflective FSL is eassier to finace making it better for some parties. The capping creates a more reasonable shape of laibilities that better align with NG spend, thus are more reflective of costs and risks.
2	Yes	as above, plus may be efficient to share the risks of default amongst all parties that are benefiting from any work.
3	Yes	as 1, but with the added beenfit that grandfathered rights protect existing parties projects which may be undermined if they have to refinacne. Given the current market, anything that maintains stability is more likely to encourage investors.
4	Yes	as in 1, 2 and 3 - with all the good bits together!
5	Yes	as with 1, but the 2 years for post commissioing will help them remain in the market as long as possible without the isk of a losure tax. Penalties for closure will push up their power prices in the run up to shutting which will then feed into end use prices. This is bad for competition.
6	Yes	as for 2, but with the argument that post commissioing gencos can manage 2 years of risk as the power curve goes out that far.
7	Yes	same as 3, but with pre commissioning genos able to maintain their current finacing for projects and post gencos better able to manage laibilities that only run for 2 years.
8	Yes	The ultimate in efficient, competitive solutions! Eassier for pre commissioning to connect and risks that post can manage. Current parties can maitain existing security and liabilities.
9	Yes	as with 1.
10	Yes	as for 2, but with the argument that post commissioing gencos can manage 2 years of risk as the power curve goes out that far.
11	Yes	as for 3
12	Yes	as for 4

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Simon Lord	First hydro Company

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:

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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	Post commissioning generation cannot manage this risk
1	No	Post commissioning generation cannot manage this risk
2	No	Post commissioning generation cannot manage this risk
3	No	Post commissioning generation cannot manage this risk
4	No	Post commissioning generation cannot manage this risk
5	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
6	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
7	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
8	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
9	No	Pre commissioning should be 4 years to align with NG investment program
10	No	Pre commissioning should be 4 years to align with NG investment program
11	No	Pre commissioning should be 4 years to align with NG investment program
12	No	Pre commissioning should be 4 years to align with NG investment program

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	Post commissioning generation cannot manage this risk
1	No	Post commissioning generation cannot manage this risk
2	No	Post commissioning generation cannot manage this risk
3	No	Post commissioning generation cannot manage this risk
4	No	Post commissioning generation cannot manage this risk
5	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
6	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
7	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
8	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
9	No	Pre commissioning should be 4 years to align with NG investment program
10	No	Pre commissioning should be 4 years to align with NG investment program
11	No	Pre commissioning should be 4 years to align with NG investment program
12	No	Pre commissioning should be 4 years to align with NG investment program

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
James Anderson	ScottishPower Energy Management Limited

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:

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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	Codifying the User Commitment arrangements into the CUSC would improve the efficiency of the User Commitment process by allowing CUSC Parties to monitor and modify the process through existing CUSC change processes. However, there has been no evidence of stranded assets and the existing interim arrangements (without user commitment for post-commissioning generators) appear to have ensured that transmission investment has only been delivered where required. The inclusion of a four year "closure" tax in the original proposal may lead to economically inefficient closure decisions by post-commissioning generators.
1	No	As above (Original proposal)
2	No	As above (Original proposal)
3	No	As above (Original proposal)
4	No	As above (Original proposal)
5	Yes	Codifying the User Commitment arrangements into the CUSC would improve the efficiency of the User Commitment process by increasing transparency and by allowing CUSC Parties to monitor and modify the process through existing CUSC change processes. This alternative, which does not include the four year "closure tax" will ensure that transmission investment is delivered at least as efficiently as under the existing interim arrangements.
6	Yes	As above (WG Alternative 5)
7	Yes	As above (WG Alternative 5)
8	Yes	As above (WG Alternative 5)
9	Yes	Codifying the User Commitment arrangements into the CUSC would improve the efficiency of the User Commitment process by increasing transparency and by allowing CUSC Parties to monitor and modify the process through existing CUSC change processes. However, the reduction in User Commitment for pre-commissioning generators to 2 years for Wider Works may increase the risk that the Transmission Owner has committed up to 50% of the capital expenditure at the point at which the generator terminates their agreement. However, on balance, this Alternative still better meets applicable CUSC objective (a) than the CUSC baseline.
10	Yes	As above (WG Alternative 9)
11	Yes	As above (WG Alternative 9)
12	Yes	As above (WG Alternative 9)

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	The original proposal would be detrimental to competition in the generation of electricity through failing to recognise the intrinsic differences in risks facing a generator which has yet to commission its plant and a generator whose plant is operational and is likely to continue utilising the transmission system even under new ownership. The imposition of a 4 year "closure tax" on post-commissioning generators could lead to the premature closure of marginal thermal plant at a time when flexible plant will be required to accomodate the increase in intermittent generation.
1	No	As above (Original proposal)
2	No	As above (Original proposal)
3	No	As above (Original proposal)
4	No	As above (Original proposal)
5	Yes	Codifying user commitment arrangements transparently within the CUSC and making them subject to CUSC governance will facilitate the entry of generators to the electricity market. This proposal lacks the 4 year "closure tax" on on post-commissioning generators which would have negated any other benefits from the original proposal.
6	Yes	As above (WG Alternative 5)
7	Yes	As above (WG Alternative 5)
8	Yes	As above (WG Alternative 5)
9	Yes	As above (WG Alternative 5). This alternative, which does not include the four year "closure tax" may ensure that transmission investment is delivered at least as efficiently as under the existing interim arrangements. On balance this Alternative still better meets applicable CUSC objective (b) than the CUSC baseline.
10	Yes	As above (WG Alternative 9)
11	Yes	As above (WG Alternative 9)
12	Yes	As above (WG Alternative 9)

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Patrick Smart	RES UK and Ireland Ltd

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
1	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
2	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
3	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
4	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
5	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
6	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
7	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
8	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
9	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
10	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
11	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.
12	Yes	Increased efficiency arising from establishing transparent user commitment arrangements.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?	
Original	Yes	Reflection of risk of termination in pre-commissioning securities is long overdue, although 4 years of post commissioning liabilities is unreasonable in light of normal operational project planning timescales,	however, non-reconcilable non-capped generic early-stage liabilities are unreasonable, particularly when compared to existing arrangements.
1	Yes	Reflection of risk of termination in pre-commissioning securities is long overdue, although 4 years of post commissioning liabilities is unreasonable in light of normal operational project planning timescales.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
2	Yes	Reflection of risk of termination in pre-commissioning securities is long overdue, although 4 years of post commissioning liabilities is unreasonable in light of normal operational project planning timescales. More appropriate sharing of risk with the consumer in respect of potentially extensive local works.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
3	Yes	Reflection of risk of termination in pre-commissioning securities is long overdue, although 4 years of post commissioning liabilities is unreasonable in light of normal operational project planning timescales.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
4	Yes	Reflection of risk of termination in pre-commissioning securities is long overdue, although 4 years of post commissioning liabilities is unreasonable in light of normal operational project planning timescales. More appropriate sharing of risk with the consumer in respect of potentially extensive local works.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
5	Yes	Reflection of risk of termination in pre-commissioning securities.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
6	Yes	Reflection of risk of termination in pre-commissioning securities and more appropriate sharing of risk with the consumer in respect of potentially extensive local works.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
7	Yes	Reflection of risk of termination in pre-commissioning securities.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
8	Yes	Reflection of risk of termination in pre-commissioning securities and more appropriate sharing of risk with the consumer in respect of potentially extensive local works.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
9	Yes	Reflection of risk of termination in pre-commissioning securities.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
10	Yes	Reflection of risk of termination in pre-commissioning securities and more appropriate sharing of risk with the consumer in respect of potentially extensive local works.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
11	Yes	Reflection of risk of termination in pre-commissioning securities.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.
12	Yes	Reflection of risk of termination in pre-commissioning securities and more appropriate sharing of risk with the consumer in respect of potentially extensive local works.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Bill Reed	RWE Npower plc RWE Supply and Trading GmbH, An Suidhe Wind Farm Limited, Beaufort Wind Limited, Carnedd Wen Wind Farm Limited, Causeymire Windfarm Limited, Farr Windfarm Limited, Gwynt-y-Mor Offshore Windfarm Limited, Kildrummy Wind Farm Limited, Novar ii Wind Farm Limited, Triton Knoll Offshore Windfarm Limited, Great Yarmouth Power Ltd, Npower Cogen Limited, Npower Cogen Trading Ltd, Npower Direct Ltd, Npower Ltd, Npower Northern Ltd, Npower Northern Supply Ltd, Npower Yorkshire Ltd, Npower Yorkshire Supply Ltd

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
1	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
2	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
3	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
4	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
5	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
6	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
7	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
8	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
9	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
10	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
11	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).
12	Yes	The proposal better meets objective (a) by codifying a User Commitment regime under the CUSC. It should be noted that codifying the current arrangements would also better meet objective (a).

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	The proposal does not better meet objective b) - 1). Removing the option for cost reflective final sums and replacing it with an arbitrary £1, £2 or £3/kW prior to the trigger date the proposal introduces a significant project risk particularly in cases where the capacity is uncertain or the early development prospects are unknown. This is a material barrier to entry and poses particular problems for renewables, especially offshore wind. It is essential that offshore projects can adjust their TEC during the development process witough significant penalties and reconcile costs. CMP192 original will create an additional financing risk associated withy the fixed user commitment prior to the trigger date and create a significant barrier to investment. Risks should be allocated to those best able to manage them, i.e. developers in early stages of project development, in order to lower overall development costs; 2) the 4-year user commitment for post commissioning generators does not reflect the market circumstances under which most power stations operate and it therefore represents a significant issue for such power stations; 3) CMP192 original is inconsist
1	No	The proposal does not better meet objective b) - 1) the 4-year user commitment for post commissioning generators does not reflect the market circumstances under which most power stations operate and it therefore represents a significant issue for such power stations; 2) The proposal is inconsistent with the recently implemented arrangements under the connect and manage regime which confirmed the introduction of a two year user commitment regime. Overall the proposal does not better meet the CUSC objectives (the issues under objective b outweigh those under Objective a)
2	No	The proposal does not better meet objective b): 1) The 4-year user commitment for post commissioning generators does not reflect the market circumstances under which most power stations operate and it therefore represents a significant issue for such power stations. 2) The proposal is inconsistent with the recently implemented arrangements under the connect and manage regime which confirmed the introduction of a two year user commitment regime. Overall the proposal does not meet the CUSC objective (the issues under objective b outweigh those under Objective a)
3	No	The proposal does not better meet objective b): 1) The 4-year user commitment for post commissioning generators does not reflect the market circumstances under which most power stations operate and it therefore represents a significant issue for such power stations. 2) The proposal is inconsistent with the recently implemented arrangements under the connect and manage regime which confirmed the introduction of a two year user commitment regime. Overall the proposal does not better meet the CUSC objectives (the issues under objective b outweigh those under Objective a)
4	No	The proposal does not better meet objective b): 1) The 4-year user commitment for post commissioning generators does not reflect the market circumstances under which most power stations operate and it therefore represents a significant issue for such power stations. 2) The proposal is inconsistent with the recently implemented arrangements under the connect and manage regime which confirmed the introduction of a two year user commitment regime. Overall the proposal does not better meet the CUSC objectives (the issues under objective b outweigh those under Objective a)
5	No	The proposal does not better meet objective b): 1) The proposal is inconsistent with the recently implemented arrangements under the connect and manage regime which confirmed the introduction of a two year user commitment regime; 2) The introduction of a 4 year wider works user commitment for pre commissioning generators with a 2 year user commitment for post commissioning generators introduces an inconsistency in the arrangements which impact on competition. Overall the proposal does not meet the CUSC objective (the issues under objective b outweigh those under Objective a)
6	No	The proposal does not better meet objective b): 1) The proposal is inconsistent with the recently implemented arrangements under the connect and manage regime which confirmed the introduction of a two year user commitment regime; 2) The introduction of a 4 year wider works user commitment for pre commissioning generators with a 2 year user commitment for post commissioning generators introduces an inconsistency in the arrangements which impact on competition. Overall the proposal does not better meet the CUSC objectives (the issues under objective b outweigh those under Objective a)
7	No	The proposal does not better meet objective b): 1) The proposal is inconsistent with the recently implemented arrangements under the connect and manage regime which confirmed the introduction of a two year user commitment regime; 2) The introduction of a 4 year wider works user commitment for pre commissioning generators with a 2 year user commitment for post commissioning generators introduces an inconsistency in the arrangements which impact on competition. Overall the proposal does not better meet the CUSC objectives (the issues under objective b outweigh those under Objective a)
8	No	The proposal does not better meet objective b): 1) The proposal is inconsistent with the recently implemented arrangements under the connect and manage regime which confirmed the introduction of a two year user commitment regime; 2) The introduction of a 4 year wider works user commitment for pre commissioning generators with a 2 year user commitment for post commissioning generators introduces an inconsistency in the arrangements which impact on competition. Overall the proposal does not better meet the CUSC objectives (the issues under objective b outweigh those under Objective a)
9	Yes	The proposal better meets objective b): The two year user commitment regime that applies to both pre and post commissioning generators together with the cost reflective arrangements for projects in development ensure that the proposal facilitate competition. Overall the proposal better meets the CUSC objectives (both objective b and Objective a)
10	Yes	The proposal better meets objective b): The two year user commitment regime that applies to both pre and post commissioning generators together with the cost reflective arrangements for projects in development and local sharing with demand ensure that the proposal facilitate competition. Overall the proposal better meets the CUSC objectives (both objective b and Objective a)
11	Yes	The proposal better meets objective b): The two year user commitment regime that applies to both pre and post commissioning generators together with the cost reflective arrangements for projects in development and grandfathering of existing rights ensure that the proposal facilitate competition. Overall the proposal better meets the CUSC objectives (both objective b and Objective a)
12	Yes	The proposal better meets objective b): The two year user commitment regime that applies to both pre and post commissioning generators together with the cost reflective arrangements for projects in development, local sharing with demand and grandfathering ensure that the proposal facilitate competition. Overall the proposal better meets the CUSC objectives (both objective b and Objective a)

Vote 1: Whether each proposal better facilitates the Applicable CUSC Objectives than the CUSC Baseline*

Name of Workgroup Member	Name of CUSC Party Represented
Paul Jones	E.ON UK

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	Similar treatment of pre and post commissioning generators represents undue discrimination.
1	No	Similar treatment of pre and post commissioning generators represents undue discrimination.
2	No	Similar treatment of pre and post commissioning generators represents undue discrimination.
3	No	Similar treatment of pre and post commissioning generators represents undue discrimination.
4	No	Similar treatment of pre and post commissioning generators represents undue discrimination.
5	No	Largely neutral .
6	No	Largely neutral .
7	No	Largely neutral .
8	No	Largely neutral .
9	No	Similar treatment of pre and post commissioning generators represents undue discrimination.
10	No	Similar treatment of pre and post commissioning generators represents undue discrimination.
11	No	Similar treatment of pre and post commissioning generators represents undue discrimination.
12	No	Similar treatment of pre and post commissioning generators represents undue discrimination.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **CUSC Baseline***?	What is the main reason for your view?
Original	No	Post commissioning generators cannot provide a 4 year closure signal. This proposal provides an unnecessary risk of operating in the market which is detrimental to the promotion of effective competition. This outweighs potential benefits for pre commissioning generation.
1	No	Post commissioning generators cannot provide a 4 year closure signal. This proposal provides an unnecessary risk of operating in the market which is detrimental to the promotion of effective competition. This outweighs potential benefits for pre commissioning generation.
2	No	Post commissioning generators cannot provide a 4 year closure signal. This proposal provides an unnecessary risk of operating in the market which is detrimental to the promotion of effective competition. This outweighs potential benefits for pre commissioning generation.
3	No	Post commissioning generators cannot provide a 4 year closure signal. This proposal provides an unnecessary risk of operating in the market which is detrimental to the promotion of effective competition. This outweighs potential benefits for pre commissioning generation.
4	No	Post commissioning generators cannot provide a 4 year closure signal. This proposal provides an unnecessary risk of operating in the market which is detrimental to the promotion of effective competition. This outweighs potential benefits for pre commissioning generation.
5	Yes	Benefits for pre commissioning generators in terms of more appropriate liabilities and security requirements promoting new entry into market.
6	No	Benefits for pre commissioning generators, but potentially inappropriate treatment of local assets with demand (for instance where only a nominal amount of demand exists or will exist). Main issue with the local issue is offshore generation being disadvantaged unduly compared with onshore island based generation.
7	Yes	Benefits for pre commissioning generators in terms of more appropriate liabilities and security requirements promoting new entry into market.
8	Yes	Benefits for pre commissioning generators in terms of more appropriate liabilities and security requirements promoting new entry into market.
9	Yes	Benefits for pre commissioning generators in terms of more appropriate liabilities and security requirements promoting new entry into market.
10	Yes	Benefits for pre commissioning generators in terms of more appropriate liabilities and security requirements promoting new entry into market.
11	Yes	Benefits for pre commissioning generators in terms of more appropriate liabilities and security requirements promoting new entry into market.
12	Yes	Benefits for pre commissioning generators in terms of more appropriate liabilities and security requirements promoting new entry into market.

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Adam Sims	National Grid

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	Removal of £1,2,3/kW for specific local and capping it for generic is more cost-reflective.
2	Yes	Reduces cost barriers to outlying generators by reflecting appropriate demand benefits
3	No	Grandfathering of IGUCM/FSL would result in ongoing different treatment between new and existing users. Whilst this may be justified in individual cases, this would only be true where a user has less than a year before commissioning
4	No	Grandfathering of IGUCM/FSL would result in ongoing different treatment between new and existing users. Whilst this may be justified in individual cases, this would only be true where a user has less than a year before commissioning
5	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
6	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
7	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
8	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
9	No	Whilst this alternative is not expected to be worse than the Original, the reduction of wider liability from 4 to 2 years has not been sufficiently demonstrated to be more reflective of TO investment costs.
10	No	Whilst this alternative is not expected to be worse than the Original, the reduction of wider liability from 4 to 2 years has not been sufficiently demonstrated to be more reflective of TO investment costs.
11	No	Whilst reduction of costs to existing users could ensure existing generators do not close early, grandfathering of IGUCM/FSL would result in ongoing different treatment between new and existing users. Whilst this may be justified in individual cases, this would only be true where a user has less than a year before commissioning
12	No	Whilst reduction of costs to existing users could ensure existing generators do not close early, grandfathering of IGUCM/FSL would result in ongoing different treatment between new and existing users. Whilst this may be justified in individual cases, this would only be true where a user has less than a year before commissioning

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	Removal of £1,2,3/kW for specific local and capping it for generic is more cost-reflective.
2	Yes	Reduces cost barriers to outlying generators by reflecting appropriate demand benefits
3	No	Grandfathering of IGUCM/FSL would result in ongoing different treatment between new and existing users. Whilst this may be justified in individual cases, this would only be true where a user has less than a year before commissioning
4	No	Grandfathering of IGUCM/FSL would result in ongoing different treatment between new and existing users. Whilst this may be justified in individual cases, this would only be true where a user has less than a year before commissioning
5	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
6	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
7	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
8	No	Differences in treatment between pre and post (4 years / 2 years) have not been sufficiently justified
9	No	Whilst the reduction of costs to existing users could ensure existing generators do not close early, the reduction of wider liability from 4 to 2 years has not been sufficiently demonstrated to be more reflective of TO investment costs.
10	No	Whilst the reduction of costs to existing users could ensure existing generators do not close early, the reduction of wider liability from 4 to 2 years has not been sufficiently demonstrated to be more reflective of TO investment costs.
11	No	Whilst reduction of costs to existing users could ensure existing generators do not close early, grandfathering of IGUCM/FSL would result in ongoing different treatment between new and existing users. Whilst this may be justified in individual cases, this would only be true where a user has less than a year before commissioning
12	No	Whilst reduction of costs to existing users could ensure existing generators do not close early, grandfathering of IGUCM/FSL would result in ongoing different treatment between new and existing users. Whilst this may be justified in individual cases, this would only be true where a user has less than a year before commissioning

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Garth Graham	SSE

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC. However, this betterment is not sufficient to outweigh the substantial detriment to objective (b) arising from this proposal.
2	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC. However, this betterment is not sufficient to outweigh the substantial detriment to objective (b) arising from this proposal.
3	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC. However, this betterment is not sufficient to outweigh the substantial detriment to objective (b) arising from this proposal.
4	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC. However, this betterment is not sufficient to outweigh the substantial detriment to objective (b) arising from this proposal.
5	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
6	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
7	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
8	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
9	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
10	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
11	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.
12	Yes	There is more of a betterment (of applicable objective (a)) from this alternative, compared with the Original , arising from incorporating the FSL / IGUM arrangements for pre commissioning generators within the governance of the CUSC.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1	No	The introduction of a four year notice period for post commissioning generators would have a substantially detrimental impact on competition in the generation and supply of electricity, and would not facilitate such competition for the reasons set out in the working group report.
2	No	The introduction of a four year notice period for post commissioning generators would have a substantially detrimental impact on competition in the generation and supply of electricity, and would not facilitate such competition for the reasons set out in the working group report.
3	No	The introduction of a four year notice period for post commissioning generators would have a substantially detrimental impact on competition in the generation and supply of electricity, and would not facilitate such competition for the reasons set out in the working group report.
4	No	The introduction of a four year notice period for post commissioning generators would have a substantially detrimental impact on competition in the generation and supply of electricity, and would not facilitate such competition for the reasons set out in the working group report.
5	Yes	The addition of FSL (no 1,2,3 £/kW) option and 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
6	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) and 50% sharing for all local reinforcements where demand is existing or planned at the site in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
7	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) and grandfathering option for pre-commissioning in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
8	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%), grandfathering option for pre-commissioning and 50% sharing for all local reinforcements where demand is existing or planned at the site in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
9	Yes	The addition of FSL (no 1,2,3 £/kW) option and 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
10	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) and 50% sharing for all local reinforcements where demand is existing or planned at the site in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
11	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%) and grandfathering option for pre-commissioning in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.
12	Yes	The addition of FSL (no 1,2,3 £/kW) option, 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%), grandfathering option for pre-commissioning and 50% sharing for all local reinforcements where demand is existing or planned at the site in this alternative would be beneficial to competition in the generation and supply of electricity, and would facilitate such competition for the reasons set out in the working group report.

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Louise Schmitz	EDF Energy

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
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	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	No	any benefits introduced by amending the original are outweighed by the potential detrimental impact of the proposed four year notice period
2	No	any benefits introduced by amending the original are outweighed by the potential detrimental impact of the proposed four year notice period
3	No	any benefits introduced by amending the original are outweighed by the potential detrimental impact of the proposed four year notice period
4	No	any benefits introduced by amending the original are outweighed by the potential detrimental impact of the proposed four year notice period
5	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market
6	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market
7	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market this is further enhance by providing the option to retain existing agreements
8	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market this is further enhance by providing the option to retain existing agreements
9	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market A two year notice period for pre-commissioning generators for wider works provides an appropriate signal for wider transmission investments to better meeting objective (a)
10	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market A two year notice period for pre-commissioning generators for wider works provides an appropriate signal for wider transmission investments to better meeting objective (a)
11	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market this is further enhance by providing the option to retain existing agreements A two year notice period for pre-commissioning generators for wider works provides an appropriate signal for wider transmission investments to better meeting objective (a)
12	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market this is further enhance by providing the option to retain existing agreements A two year notice period for pre-commissioning generators for wider works provides an appropriate signal for wider transmission investments to better meeting objective (a)

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1	No	any benefits introduced by amending the original are outweighed by the potential detrimental impact of the proposed four year notice period
2	No	any benefits introduced by amending the original are outweighed by the potential detrimental impact of the proposed four year notice period
3	No	any benefits introduced by amending the original are outweighed by the potential detrimental impact of the proposed four year notice period
4	No	any benefits introduced by amending the original are outweighed by the potential detrimental impact of the proposed four year notice period
5	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market
6	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market Although sharing of risk with demand on some local reinforcements will be beneficial to pre-commissioning generators, the areas of the network where this is more likely to be implemented might be considered to relate to transmission investments which are more likely to be at risk of not being required. This may not have a quantifiable impact on competition but could have an impact on consumers
7	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market this is further enhance by providing the option to retain existing agreements
8	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market this is further enhance by providing the option to retain existing agreements Although sharing of risk with demand on some local reinforcements will be beneficial to pre-commissioning generators, the areas of the network where this is more likely to be implemented might be considered to relate to transmission investments which are more likely to be at risk of not being required. This may not have a quantifiable impact on competition but could have an impact on consumers
9	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market
10	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market Although sharing of risk with demand on some local reinforcements will be beneficial to pre-commissioning generators, the areas of the network where this is more likely to be implemented might be considered to relate to transmission investments which are more likely to be at risk of not being required. This may not have a quantifiable impact on competition but could have an impact on consumers
11	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market this is further enhance by providing the option to retain existing agreements
12	Yes	Introducing the flexibility for generator choice on pre-commissioning arrangements might improve both efficiency and competition in the market this is further enhance by providing the option to retain existing agreements Although sharing of risk with demand on some local reinforcements will be beneficial to pre-commissioning generators, the areas of the network where this is more likely to be implemented might be considered to relate to transmission investments which are more likely to be at risk of not being required. This may not have a quantifiable impact on competition but could have an impact on consumers

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Dennis Gowland	Fairwind Orkney Ltd

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:

(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and

(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	Clear distinction FSL no 1,2,3 option and generic with 1,2,3
2	Yes	Plus 50/50 sharing for qualifying Local
3	Yes	Allows grandfathering for Pre-Com
4	Yes	Allows grandfathering for Pre-Com and 50/50 sharing for qualifying Local
5	Yes	More realistic signals 4 yr pre and 2 yr post, Clear distinction no 1,2,3, Option and Generic with 1,2,3.
6	Yes	Plus 50/50 sharing for qualifying Local
7	Yes	Allows grandfathering for Pre-Com
8	Yes	Allows grandfathering for Pre-Com and 50/50 sharing for qualifying Local
9	Yes	Clear distinction FSL no 1,2,3 option and generic with 1,2,3
10	Yes	Plus 50/50 sharing for qualifying Local
11	Yes	Allows grandfathering for Pre-Com
12	Yes	Allows grandfathering for Pre-Com and 50/50 sharing for qualifying Local

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	As above - I have linked a) and b)
2	Yes	As above - I have linked a) and b)
3	Yes	As above - I have linked a) and b)
4	Yes	As above - I have linked a) and b)
5	Yes	As above - I have linked a) and b)
6	Yes	As above - I have linked a) and b)
7	Yes	As above - I have linked a) and b)
8	Yes	As above - I have linked a) and b)
9	Yes	As above - I have linked a) and b)
10	Yes	As above - I have linked a) and b)
11	Yes	As above - I have linked a) and b)
12	Yes	As above - I have linked a) and b)

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Helen Snodin	Vattenfall

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	Capping 1,2,3 is an improvement as improves the intent of 1,2,3 to be meaningful contribution at pre-construction stage.
2	Yes	Grandfathering and 50% treatment on local where there is demand mitigates the Original treatment of local.
3	Yes	Grandfathering the FSL "Option 3" and IGUM will allow existing agreements signed on that basis to continue managing project on the basis that they signed up, improving investment signals.
4	Yes	Grandfathering and 50% treatment on local where there is demand mitigates the Original treatment of local.
5	Yes	As Alternative 1
6	Yes	As Alternative 2
7	Yes	As Alternative 3
8	Yes	As Alternative 4
9	No	2:2 not justified
10	No	2:2 not justified
11	No	2:2 not justified
12	No	2: 2 not justified

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1		As above, on the basis that (b) is a subset of (a)
2		As above, on the basis that (b) is a subset of (a)
3		As above, on the basis that (b) is a subset of (a)
4		As above, on the basis that (b) is a subset of (a)
5		As above, on the basis that (b) is a subset of (a)
6		As above, on the basis that (b) is a subset of (a)
7		As above, on the basis that (b) is a subset of (a)
8		As above, on the basis that (b) is a subset of (a)
9		As above, on the basis that (b) is a subset of (a)
10		As above, on the basis that (b) is a subset of (a)
11		As above, on the basis that (b) is a subset of (a)
12		As above, on the basis that (b) is a subset of (a)

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Peter Waghorn	Conoco

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	No	The inclusion of choice of liability mechanism is an improvement on the original proposal . However the requirement for 4 years post-commissioning notice will not lead to a co-ordinated and efficient development of the transmision system and may deter development or retention of necessary generation. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security and liability may change compared to that when the project was initiated.
2	No	The inclusion of choice of liability mechanism is an improvement on the original proposal . However the requirement for 4 years post-commissioning notice will not lead to a co-ordinated and efficient development of the transmision system and may deter development or retention of necessary generation. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security and liability may change compared to that when the project was initiated.
3	No	The inclusion of choice of liability mechanism is an improvement on the original proposal. However the requirement for 4 years post-commissioning notice will not lead to a co-ordinated and efficient development of the transmision system and may deter development or retention of necessary generation.
4	No	The inclusion of choice of liability mechanism is an improvement on the original proposal. However the requirement for 4 years post-commissioning notice will not lead to a co-ordinated and efficient development of the transmision system and may deter development or retention of necessary generation.
5	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes. The absence of a grandfathering mechanism is however an issue.
6	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes. The absence of a grandfathering mechanism is however an issue.
7	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes. Inclusion of grandfathering will give stability to projects in train.
8	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes. Inclusion of grandfathering will give stability to projects in train.
9	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes
10	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes
11	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes
12	Yes	This alternative is more likely to enable efficient and co-ordinated development of the transmission system as post-commissioning liability is within practical and realistic timeframes

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1	No	A requirement for 4 years notice may lead to closure decisons which are not in the wider interests of the market by reducing competition nor in terms of maintaining security and diversity of supply. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security of liability may change compared to that when the project was initiated.
2	No	A requirement for 4 years notice may lead to closure decisons which are not in the wider interests of the market by reducing competition nor in terms of maintaining security and diversity of supply. The absence of a grandfathering mechanism may lead to projects being terminated as the basis of security of liability may change compared to that when the project was initiated.
3	No	A requirement for 4 years notice may lead to closure decisions which are not in the wider interests of the market by reducing competition nor in terms of maintaining security and diversity of supply.
4	No	A requirement for 4 years notice may lead to closure decisions which are not in the wider interests of the market by reducing competition nor in terms of maintaining security and diversity of supply.
5	Yes	Choice of liability mechanism and a realistic post-commissioning liability period will enable efficient decisions to be made in terms of generation development and retention, improviong competition, diversity and security of supply.
6	Yes	Choice of liability mechanism and a realistic post-commissioning liability period will enable efficient decisions to be made in terms of generation development and retention, improviong competition, diversity and security of supply.
7	Yes	Choice of liability mechanism and a realistic post-commissioning liability period will enable efficient decisions to be made in terms of generation development and retention, improviong competition, diversity and security of supply. However the absence of a grandfathering mechanism may lead to projects being terminated as the basis of security and liability may change compared to that when the project was initiated.
8	Yes	Choice of liability mechanism and a realistic post-commissioning liability period will enable efficient decisions to be made in terms of generation development and retention, improviong competition, diversity and security of supply. However the absence of a grandfathering mechanism may lead to projects being terminated as the basis of security and liability may change compared to that when the project was initiated.
9	Yes	Choice of liability mechanism and a realistic post-commissioning liability period will enable efficient decisions to be made in terms of generation development and retention, improviong competition, diversity and security of supply. However the absence of a grandfathering mechanism may lead to projects being terminated as the basis of security and liability may change compared to that when the project was initiated.
10	Yes	Choice of liability mechanism and a realistic post-commissioning liability period will enable efficient decisions to be made in terms of generation development and retention, improviong competition, diversity and security of supply. However the absence of a grandfathering mechanism may lead to projects being terminated as the basis of security and liability may change compared to that when the project was initiated.
11	Yes	Choice of liability mechanism and a realistic post-commissioning liability period will enable efficient decisions to be made in terms of generation development and retention, improviong competition, diversity and security of supply.
12	Yes	Choice of liability mechanism and a realistic post-commissioning liability period will enable efficient decisions to be made in terms of generation development and retention, improviong competition, diversity and security of supply.

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Nick Fedorkiw	Mainstream Renewable Power

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:

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(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	Capping 1,2,3 is an improvement as improves the intent of 1,2,3 to be meaningful contribution at pre-construction stage.
2	Yes	Grandfathering and 50% treatment on local where there is demand mitigates the Original treatment of local.
3	Yes	Grandfathering the FSL "Option 3" and IGUM will allow existing agreements signed on that basis to continue managing project on the basis that they signed up, improving investment signals.
4	Yes	Grandfathering and 50% treatment on local where there is demand mitigates the Original treatment of local.
5	Yes	As Alternative 1
6	Yes	As Alternative 2
7	Yes	As Alternative 3
8	Yes	As Alternative 4
9	No	2:2 not justified
10	No	2:2 not justified
11	No	2:2 not justified
12	No	2: 2 not justified

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1		As above, on the basis that (b) is a subset of (a)
2		As above, on the basis that (b) is a subset of (a)
3		As above, on the basis that (b) is a subset of (a)
4		As above, on the basis that (b) is a subset of (a)
5		As above, on the basis that (b) is a subset of (a)
6		As above, on the basis that (b) is a subset of (a)
7		As above, on the basis that (b) is a subset of (a)
8		As above, on the basis that (b) is a subset of (a)
9		As above, on the basis that (b) is a subset of (a)
10		As above, on the basis that (b) is a subset of (a)
11		As above, on the basis that (b) is a subset of (a)
12		As above, on the basis that (b) is a subset of (a)

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Lisa Waters	Wyre Power

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	All of the alternatives have attributes that are better than the original in realtion to objective a: FSL is a good option for developers and NG is more liekly to build, operate and manage a netowrk that is encouraging developers to bring forward projects; The shape of the laibilities can create problems for financing as security may go up and then down; all provide a more reasonable set of incentives on aprties, which will mean that they are more likely to send reasonable signals that the TO can respond to and thus develop the market efficiently; and the working group has refined the proposals to make them align NG's role with their own.
2	Yes	
3	Yes	
4	Yes	
5	Yes	
6	Yes	
7	Yes	
8	Yes	
9	Yes	
10	Yes	
11	Yes	
12	Yes	

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	All of the alternatives are more likely to result in a competitive market as the liabilities put on the system users are more reasonable, send signals they can respond to and more equitably gain access to the power market.
2	Yes	
3	Yes	
4	Yes	
5	Yes	
6	Yes	
7	Yes	
8	Yes	
9	Yes	
10	Yes	
11	Yes	
12	Yes	

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Simon Lord	First Hydro Company

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	No	Post commissioning generation cannot manage this risk
2	No	Post commissioning generation cannot manage this risk
3	No	Post commissioning generation cannot manage this risk
4	No	Post commissioning generation cannot manage this risk
5	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
6	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
7	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
8	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
9	No	Pre commissioning should be 4 years to align with NG investment program
10	No	Pre commissioning should be 4 years to align with NG investment program
11	No	Pre commissioning should be 4 years to align with NG investment program
12	No	Pre commissioning should be 4 years to align with NG investment program

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1	No	Post commissioning generation cannot manage this risk
2	No	Post commissioning generation cannot manage this risk
3	No	Post commissioning generation cannot manage this risk
4	No	Post commissioning generation cannot manage this risk
5	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
6	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
7	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
8	Yes	Delivers better security arrangements for pre-commissioning generation , post can manage risk
9	No	Pre commissioning should be 4 years to align with NG investment program
10	No	Pre commissioning should be 4 years to align with NG investment program
11	No	Pre commissioning should be 4 years to align with NG investment program
12	No	Pre commissioning should be 4 years to align with NG investment program

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
James Anderson	ScottishPower Energy Management Limited

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	No	The changes introduced by Alternative 1 will make only marginal difference to the ability of the Original Proposal to better meet Applicable CUSC Objective (a)
2	No	The changes introduced by Alternative 1 will make only marginal difference to the ability of the Original Proposal to better meet Applicable CUSC Objective (a)
3	No	The changes introduced by Alternative 1 will make only marginal difference to the ability of the Original Proposal to better meet Applicable CUSC Objective (a)
4	No	The changes introduced by Alternative 1 will make only marginal difference to the ability of the Original Proposal to better meet Applicable CUSC Objective (a)
5	Yes	Alternative 5, which does not include the four year "closure tax" will ensure that transmission investment is delivered at least as efficiently as under the existing interim arrangements and so better meets Applicable CUSC Objctive (a) than the Original Proposal
6	Yes	As Alternative 5
7	Yes	As Alternative 5
8	Yes	As Alternative 5
9	Yes	The reduction in User Commitment for pre-commissioning generators to 2 years for Wider Works may increase the risk that the Transmission Owner has committed up to 50% of the capital expenditure at the point at which the generator terminates their agreement. However, the removal of 4 year's notice for post-commissioning generators still ensures that this Alternative better meets applicable CUSC objective (a) than the Original Proposal
10	Yes	As above (WG Alternative 9)
11	Yes	As above (WG Alternative 9)
12	Yes	As above (WG Alternative 9)

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	The option to elect for FSL allows developers to choose the most economically efficient method of calculating user commitment particularly during the early years of a project when National Grid and the TOs may incur low levels of expenditure. Smoothing the profile of liabilities will assist developers in securing finance for their generation projects. However, the imposition of a 4 year notice requirement post commissioning will lead to greater inefficiency in the operation of the electricity market.
2	Yes	As WG Alternative 1
3	Yes	As WG Alternative 1. In addition, taking account of future demand connections at substations will avoid developers assuming the liability for works which may be related to those future developments.
4	Yes	As Alternative 3. The ability to grandfather of existing arrangements provides certainty to developers with existing Connection Agreements and removes the need to renegotiate existing funding arrangements..
5	Yes	The application of a 2 year liability for post-commissioning generators better reflects the difference in risk between pre and post-commissioning generators and recognises the timeframe within which post-commissioning generators can make an efficient economic decision on plant closure.
6	Yes	As Alternative 5 plus the consideration of the future connection of demand ensures that pre-commissioning generation developers do not assume any liabilities for future network developments for demand users.
7	Yes	As Alternative 5 with the addition of grandfathering of arrangements for existing pre-commissioning generators to ensure that there is no need to renegotiate existing funding arrangements.
8	Yes	As Alternative 5 with the benefits of 50% where local demand expected to connect (Alternative 6) and grandfathering of existing arrangements (Alternative 7)
9	Yes	The application of a 2 year liability for post-commissioning generators better reflects the difference in risk between pre and post-commissioning generators and recognises the timeframe within which they can make an efficient economic decision on plant closure. The reduction in User Commitment for pre-commissioning generators to 2 years for Wider Works may increase the risk that the Transmission owner have committed up to 50% of the capital expenditure at the point at which the generator terminates their agreement. On balance, however, this Alternative still better meets Applicable CUSC Objective (b) than the Original Proposal.
10	Yes	As Alternative 9 plus the consideration of the future connection of demand ensures that generation developers do not assume any liabilities for future network developments for demand users.
11	Yes	As Alternative 9 with the addition of grandfathering of arrangements for existing pre-commissioning generators to ensure that there is no need to renegotiate existing funding arrangements.
12	Yes	As Alternative 9 with the benefits of 50% sharing where local demand is expected to connect (Alternative 6) and grandfathering of existing arrangements (Alternative 7)

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Merel van der Neut Kolfschoten	Centrica

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	No	The 4 year notice period for post-commissioning generators is the same as under the Original. We believe it is disproportionate, potentially discriminatory and could have a negative impact on competition and security of supply.
2	No	See under 1.
3	No	See under 1.
4	No	See under 1.
5	**Yes**	Our concerns regarding the 4 year notice period (see above) no longer apply.
6	**Yes**	See under 5.
7	**Yes**	See under 5.
8	**Yes**	See under 5.
9	**Yes**	See under 5.
10	**Yes**	See under 5.
11	**Yes**	See under 5.
12	**Yes**	See under 5.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1	No	See above under 1.
2	No	See above under 2.
3	No	See above under 3.
4	No	See above under 4.
5	**Yes**	See above under 5.
6	**Yes**	See above under 6.
7	**Yes**	See above under 7.
8	**Yes**	See above under 8.
9	**Yes**	See above under 9.
10	**Yes**	See above under 10
11	**Yes**	See above under 11.
12	**Yes**	See above under 12.

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Patrick Smart	RES UK and Ireland Ltd

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
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	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Abstain	
2	Abstain	
3	Abstain	
4	Abstain	
5	Abstain	
6	Abstain	
7	Abstain	
8	Abstain	
9	Abstain	
10	Abstain	
11	Abstain	
12	Abstain	

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?		
1	Yes		Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	
2	Yes	More appropriate sharing of risk with the consumer in relation to Local Works which may not be truly "Local" and which may be just as critical to supporting the development of new generation as wider works and increased early-stage flexibility.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	
3	Yes		Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	
4	Yes	More appropriate sharing of risk with the consumer in relation to Local Works which may not be truly "Local" and which may be just as critical to supporting the development of new generation as wider works and increased early-stage flexibility.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	
5	Yes	Post commissioning notice period more reflective of operational project planning timescales.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	
6	Yes	More appropriate sharing of risk with the consumer in relation to Local Works which may not be truly "Local" and which may be just as critical to supporting the development of new generation as wider works. Post commissioning notice period more reflective of operational project planning timescales.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	
7	Yes	More appropriate sharing of risk with the consumer in relation to Local Works which may not be truly "Local" and which may be just as critical to supporting the development of new generation as wider works. Post commissioning notice period more reflective of operational project planning timescales.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	
8	Yes	More appropriate sharing of risk with the consumer in relation to Local Works which may not be truly "Local" and which may be just as critical to supporting the development of new generation as wider works. Post commissioning notice period more reflective of operational project planning timescales.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	
9	No	Pre-commissioning liabilities more aligned with project financial close and delivery timeline. Post commissioning notice period more reflective of operational project planning timescales.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	After clarification on strawman position on sharing (where strategic factor excludes sharing factor), perverse incentive on asset design that could be manipulated to inhibit competition
10	No	More appropriate sharing of risk with the consumer in relation to Local Works which may not be truly "Local" and which may be just as critical to supporting the development of new generation as wider works. Pre-commissioning liabilities more aligned with project financial close and delivery timeline. Post commissioning notice period more reflective of operational project planning timescales.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	After clarification on strawman position on sharing (where strategic factor excludes sharing factor), perverse incentive on asset design that could be manipulated to inhibit competition
11	No	More appropriate sharing of risk with the consumer in relation to Local Works which may not be truly "Local" and which may be just as critical to supporting the development of new generation as wider works. Pre-commissioning liabilities more aligned with project financial close and delivery timeline. Post commissioning notice period more reflective of operational project planning timescales.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	After clarification on strawman position on sharing (where strategic factor excludes sharing factor), perverse incentive on asset design that could be manipulated to inhibit competition
12	No	More appropriate sharing of risk with the consumer in relation to Local Works which may not be truly "Local" and which may be just as critical to supporting the development of new generation as wider works. Pre-commissioning liabilities more aligned with project financial close and delivery timeline. Post commissioning notice period more reflective of operational project planning timescales.	Greater flexibility afforded to generators whose financing arrangements may not support the non-reconcilable aspect of the £1, £2, £3 / kW, also prevents unnecessary over-securitisation via generic method.	After clarification on strawman position on sharing (where strategic factor excludes sharing factor), perverse incentive on asset design that could be manipulated to inhibit competition

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Bill Reed	RWE Npower plc RWE Supply and Trading GmbH, An Suidhe Wind Farm Limited, Beaufort Wind Limited, Carnedd Wen Wind Farm Limited, Causeymire Windfarm Limited, Farr Windfarm Limited, Gwynt-y-Mor Offshore Windfarm Limited, Kildrummy Wind Farm Limited, Novar ii Wind Farm Limited, Triton Knoll Offshore Windfarm Limited, Great Yarmouth Power Ltd, Npower Cogen Limited, Npower Cogen Trading Ltd, Npower Direct Ltd, Npower Ltd, Npower Northern Ltd, Npower Northern Supply Ltd, Npower Yorkshire Ltd, Npower Yorkshire Supply Ltd

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	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
2	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
3	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
4	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
5	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
6	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
7	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
8	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
9	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
10	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
11	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.
12	Yes	The introduction of cost reflective final sums is an improvement over the baseline and will help NG better meet is licence obligations to facilitate applications for connection since they are familiar to users as they are consistent with the current arrangements outside the CUSC. Cost reflective final sums also help to manage risks more efficiently and therefore facilitate the connections process compared to the original 192 proposal.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1		
2	Yes	The proposal better meets objective b: 1.The introduction of cost reflective final sums enables projects in early development to better manage the risks when compared with the baseline. 2. The introduction of local sharing better reflects the risks associated with certain connections which are associated with demand.
3	Yes	The proposal better meets objective b: 1.The introduction of cost reflective final sums enables projects in early development to better manage the risks when compared with the baseline. 2. The introduction of Grandfathering will enable projects in development to maintain existing arrangements and minimise the disruption caused by implementation of the proposal (particularly in relation of financing arrangements).
4	Yes	The proposal better meets objective b: 1.The introduction of cost reflective final sums enables projects in early development to better manage the risks when compared with the baseline. 2. The introduction of local sharing better reflects the risks associated with certain connections which are associated with demand. 3. The introduction of Grandfathering will enable projects in development to maintain existing arrangements and minimise the disruption caused by implementation of the proposal (particularly in relation to financing arrangements).
5	Yes	The proposal better meets objective b: 1.The introduction of cost reflective final sums enables projects in early development to better manage the risks when compared with the baseline.
6	Yes	The proposal better meets objective b: 1.The introduction of cost reflective final sums enables projects in early development better manage the risks when compared with the baseline. 2. The introduction of local sharing better reflects the risks associated with certain connections which are associated with demand.
7	Yes	The proposal better meets objective b: 1.The introduction of cost reflective final sums enables projects in early development to better manage the risks when compared with the baseline. 2. The introduction of Grandfathering will enable projects in development to maintain existing arrangements and minimise the disruption caused by implementation of the proposal (particularly in relation to financing arrangements).
8	Yes	The proposal better meets objective b: 1.The introduction of cost reflective final sums enables projects in early development tobetter manage the risks when compared with the baseline. 2. The introduction of local sharing better reflects the risks associated with certain connections which are associated with demand. 3. The introduction of Grandfathering will enable projects in development to maintain existing arrangements and minimise the disruption caused by implementation of the proposal (particularly in relation of financing arrangements).
9	Yes	The proposal between meets objective b: 1.The introduction of cost reflective final sums enables projects in early development better manage the risks when compared with the baseline. 2 The two year user commitment regime that applies to both pre and post commissioning generators together with the cost reflective arrangements for projects in development and local sharing with demand ensure that the proposal facilitate competition
10	Yes	The proposal between meets objective b: 1.The introduction of cost reflective final sums enables projects in early development to better manage the risks when compared with the baseline. 2 The two year user commitment regime that applies to both pre and post commissioning generators together with the cost reflective arrangements for projects in development and local sharing with demand ensure that the proposal facilitate competition. 3. The introduction of local sharing better reflects the risks associated with certain connections which are associated with demand.
11	Yes	The proposal better meets objective b: 1.The introduction of cost reflective final sums enables projects in early development to better manage the risks when compared with the baseline. 2 The two year user commitment regime that applies to both pre and post commissioning generators together with the cost reflective arrangements for projects in development and local sharing with demand ensure that the proposal facilitate competition. 3. The introduction of Grandfathering will enable projects in development to maintain existing arrangements and minimise the disruption caused by implementation of the proposal (particularly in relation to financing arrangements).
12	Yes	The proposal better meets objective b: 1.The introduction of cost reflective final sums enables projects in early development to better manage the risks when compared with the baseline. 2 The two year user commitment regime that applies to both pre and post commissioning generators together with the cost reflective arrangements for projects in development and local sharing with demand ensure that the proposal facilitate competition. 3. The introduction of local sharing better reflects the risks associated with certain connections which are associated with demand. 4. The introduction of Grandfathering will enable projects in development to maintain existing arrangements and minimise the disruption caused by implementation of the proposal (particularly in relation to financing arrangements).

Vote 2: Whether each proposal better facilitates the Applicable CUSC Objectives than the Original Proposal

Name of Workgroup Member	Name of CUSC Party Represented
Paul Jones	E.ON UK

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

	Does the proposal better facilitate Applicable CUSC Objective **(a)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	Capping of £1, £2, £3 liabiliities a small improvement on the original.
2	No	Potentially inappropriate treatment of local assets with demand (for instance where only a nominal amount of demand exists or will exist). Main issue with the local issue is offshore generation being disadvantaged unduly compared with onshore island based generation.
3	Yes	Grandfathering of rights for existing pre commissioning generators reduces project risk for parties assuming the current regime.
4	Yes	Grandfathering benefits outweigh disbenefit of inappropriate treatment of local assets with demand.
5	Yes	Removal of undue discrimination improves this alternative over original.
6	Yes	Removal of undue discrimination improves this alternative over original.
7	Yes	Removal of undue discrimination improves this alternative over original.
8	Yes	Removal of undue discrimination improves this alternative over original.
9	Yes	Although undue discrimination retained, risk associated with dealing with 4 year TEC reduction period removed.
10	Yes	Although undue discrimination retained, risk associated with dealing with 4 year TEC reduction period removed.
11	Yes	Although undue discrimination retained, risk associated with dealing with 4 year TEC reduction period removed.
12	Yes	Although undue discrimination retained, risk associated with dealing with 4 year TEC reduction period removed.

	Does the proposal better facilitate Applicable CUSC Objective **(b)** compared to the **Original Proposal**?	What is the main reason for your view?
1	Yes	Capping of £1, £2, £3 liabiliities a small improvement on the original.
2	No	Potentially inappropriate treatment of local assets with demand (for instance where only a nominal amount of demand exists or will exist). Main issue with the local issue is offshore generation being disadvantaged unduly compared with onshore island based generation.
3	Yes	Grandfathering of rights for existing pre commissioning generators reduces project risk for parties assuming the current regime.
4	Yes	Grandfathering benefits outweigh disbenefit of inappropriate treatment of local assets with demand.
5	Yes	Removal of undue discrimination improves this alternative over original.
6	Yes	Removal of undue discrimination improves this alternative over original.
7	Yes	Removal of undue discrimination improves this alternative over original.
8	Yes	Removal of undue discrimination improves this alternative over original.
9	Yes	Although undue discrimination retained, risk associated with dealing with 4 year TEC reduction period removed.
10	Yes	Although undue discrimination retained, risk associated with dealing with 4 year TEC reduction period removed.
11	Yes	Although undue discrimination retained, risk associated with dealing with 4 year TEC reduction period removed.
12	Yes	Although undue discrimination retained, risk associated with dealing with 4 year TEC reduction period removed.

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Adam Sims	National Grid

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
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(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
1	Ensures equitable treatment between pre and post over the 4 year notice period justified in the report, whilst excluding differing treatment caused by grandfathering arrangements. Whilst being sympathetic to 50% sharing of local for certain users, we feel that this should be treated on a individual case basis rather than through a blanket change, and may be a future refinement of the methodology once it has been more robustly justified through economic analysis.

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Garth Graham	SSE

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
8	This is the most suitable of the 14 options (baseline, original and 12 alternatives) as it includes the key elements of (i) FSL (no 1,2,3 £/kW) option, (ii) 1,2,3 £/kW capped @ YR-4 in generic option (i.e. 25%), (iii) grandfathering option for pre-commissioning and (iv) 50% sharing for all local reinforcements where demand is existing or planned at the site whilst providing a reasonable notice period for post commissioning generators (of two years) and pre commissioning generators (of four years) which is commensurate with what is a practical notice period for those users. Overall this is the most rounded and 'best' of the 14 options available.

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Louise Schmitz	EDF Energy

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
11	inclusion of security and liability arrangements into the CUSC is an improvement over the baseline which is enhanced further by the retention of existing TEC notice periods for post-commissioning generators allowing for efficient exit from the transmission system. The inclusion of options to provide generators with a choice of security arrangements and the potential to retain existing pre-commissioning agreements provides the necessary flexibility within the connection arrangements for pre-commissioning generators A two year notice period for wider transmission investments based on capex for all generators provides an appropriate and achievable signal which will better improve applicable objective (a) and (b) Ensuring that consumers bear a reasonable level of risk is critical to providing a balance to the market in the context of investment in transmission. This may not be provided in alternatives where a forward looking view is used for the sharing of risk with consumers on parts of local transmission works (where the tangible benefits to demand are difficult to quantify). This

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Dennis Gowland	Fairwind Orkney Ltd

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
8	Allows for 4 years of TO build to be covered by 4 year post commissioning generators Local and Wider and a realistic 2 years Post Commissioning when economic signals are more likely to be available for a generator considering closure. The full FSL option (no 1,2,3) and grandfathering would help to mitigate the apparent discrimination between 4 years for Pre and 2 years for post. NGET would still get a 4 year signal for Wider works for Pre and avoid a possible gap in 'cover' in years 1 and 2 compared to Alternatives 9-12. The arrangements to allow generators with qualifying Local works to share 50/50 (as Wider) is crucial to allow development in areas, currently remote from the Grid (MITS) but where there is a high and varied resource for energy and where demand can also benefit. In all the alternatives and the Original, the security arrangments are far better than the current baseline and allow for reducing risk to be reflected in the percentage of liabiliites expected to be secured by pre-commissioning projects. This is a clear reduction to barriers of entry.

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Helen Snodin	Vattenfall

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
4	Aligned with transmission investment timescales and has, of the options, fairest treatment of local, although still not ideal

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Peter Waghorn	Conoco

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
10	This alternative is best placed to enable efficient transmission development and competition in generation by providing choice of liability mechanism, appropriate liability notice periods for both generators and grid owners,which will enable efficient transmission planning and ensure closure decisions are appropriate, the opportunity to retain existing arrangements through grandfathering and appropriate relief where sharing with demand is realistic.

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Nick Fedorkiw	Mainstream Renewable Power

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
4	Aligned with transmission investment timescales and has, of the options, fairest treatment of local, although still not ideal

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Lisa Waters	Wyre Power

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
12	It best balances the risks between the parties and gives flexibility for developers to chose the way they progress projects. This appears to be economic, efficient, transparent, equitable (bettwen gencos and customers) and create the right ecoomic incetnives on all parties.

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Simon Lord	First hydro Company

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
8	post commissioning generation can manage the risk, local can be treated as wider where demand is anticipated

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
James Anderson	ScottishPower Energy Management Limited

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
8	WG Alternative 8 best meets Applicable CUSC Objective (a) as it codifies the user Commitmnent arrangements into the CUSC while recognising the intrinsic differences in risk betwen pre and post-commissioning generators. It also better meets Applicable CUSC Objective (b) as it will facilitate effective competition in the generation of electricity by better facilitating the entry of new generators through (i) grandfathering existing arrangements to avoid the need for users to renegotiate existing funding and (ii)recognises future connection of demand at generation substations thus correctly apportioning the liability to pre-commissioning generators

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Merel van der Neut Kolfschoten	Centrica

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
12	Our current view is that - on balance - the benefits of reduced liability and/or security for pre-commissioning generators outweigh the concerns we have with the proposed CAPEX methodology. We need to see the detail, but support in principle the idea of sharing local works with demand in certain circumstances. We believe grandfathering of existing arrangements is essential to ensure investor confidence. Finally, although option 8 seems more sensible when taking into account National Grid's 4 year investment profile, for a developer a 2 year period for wider works is better than a 4 year period.

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Patrick Smart	RES UK and Ireland Ltd

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
8	Option 8 establishes a liability and security framework which most closely reflects the project planning timelines (both pre and post commissioning) and affords sufficient flexibility to accommodate developers of projects with a range of financing terms without introducing new material risk to the consumer.[*1]

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Bill Reed	RWE Npower plc RWE Supply and Trading GmbH, An Suidhe Wind Farm Limited, Beaufort Wind Limited, Carnedd Wen Wind Farm Limited, Causeymire Windfarm Limited, Farr Windfarm Limited, Gwynt-y-Mor Offshore Windfarm Limited, Kildrummy Wind Farm Limited, Novar ii Wind Farm Limited, Triton Knoll Offshore Windfarm Limited, Great Yarmouth Power Ltd, Npower Cogen Limited, Npower Cogen Trading Ltd, Npower Direct Ltd, Npower Ltd, Npower Northern Ltd, Npower Northern Supply Ltd, Npower Yorkshire Ltd, Npower Yorkshire Supply Ltd

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
12	Alternative 12 which includes cost reflective final sums, local sharing and grandfathering represents the best alternative when compared to the CUSC baseline: The proposal bettwer meets objective (a) throughthe codification of user commitment arrangeemnts and best meets objective b for the following reasons: 1.The introduction of cost reflective final sums enables projects in early development to better manage the risks when compared with the baseline; 2. The two-year user commitment regime that applies to both pre and post commissioning generators introduces consistent treatment for both parties; 3. The the cost reflective arrangements for projects in development and local sharing with demand ensure that the proposal facilitates greater competition; 4. The introduction of local sharing better reflects the risks associated with certain connections which are associated with demand; and 5. The introduction of Grandfathering will enable projects in development to maintain existing arrangements and minimise the disruption caused by implementation of the proposal (particularly in relation fo financing arrangements).

Vote 3: Which option BEST facilitates achievement of the Applicable CUSC Objectives (incl. CUSC baseline)

Name of Workgroup Member	Name of CUSC Party Represented
Paul Jones	E.ON UK

Notes: Workgroup Members must be able to provide sufficient justification for their vote against each Applicable CUSC Objective (ACO).
For reference, the Applicable CUSC Objectives are:
(a) the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence; and
(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

Which option BEST facilitates achievement of the Applicable CUSC Objectives?	What is the main reason for your view?
7	Removal of undue discrimination between pre and post commissioning generators associated with some options, plus avoidance of inappropriate treatment of local assets with demand, thereby avoiding undue disadvantage for offshore generation compared with onshore island based generation.

Annex 8 – Glossary of Terms

BETTA	British Electricity Trading and Transmission Arrangements
B6	The Cheviot boundary between Scotland and England
C&M	Connect and Manage
CAPEX	Capital Expenditure
DECC	Department of Energy and Climate Change
EMR	Electricity Market Review
FSL	Final Sums Liability
GARF	Generic Asset Reuse Factor
GSP	Grid Supply Point
ICAM	Investment Cost Allocation Model
ICRP	Investment Cost Related Pricing
IGUCM	Interim Generic User Commitment Methodology
LCPD	Large Combustion Plant Directive
LDTEC	Limited Duration Transmission Entry Capacity
LOC	Letter of Credit
LR	Load-Related
NETSO	National Electricity Transmission System Operator
NLR	Non Load-Related
ODIS	Offshore Development Information Statement
Ofgem	Office of Gas and Electricity Markets
OFTO	Offshore Transmission Owner
PCG	Parent Company Guarantee
PCR	Price Control Review
RAB	Regulated Asset Base
SCR	Significant Code Review
SIF	Strategic Investment Factor
SO	System Operator
SQSS	Security and Quality of Supply Standards
STOR	Short Term Operating Reserve
STTEC	Short Term Transmission Entry Capacity
SYS	Seven Year Statement
TEC	Transmission Entry Capacity
TII	Transmission Investment Incentives
TNUoS	Transmission Network Use of System
TO	Transmission Owner
LARF	Local Asset Reuse Factor
VAR	Value at Risk
WACM	Workgroup Alternative CUSC Modification