nationalgrid

Stage 04: Code Administrator Consultation

Connection and Use of System Code (CUSC)

CMP235/CMP236

'Introduction of a new Relevant Interruption Type' and 'Clarification of when Disconnection Compensation payments can be expected under a Relevant Interruption'

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 Proposal is an amalgamation of two CUSC Modification Proposals raised in September 2014.

Published on:	16th April 2015
Length of consultation:	15 Working days
Responses by:	8th May 2015

CMP235 seeks to amend the description of an Interruption to add a type of Emergency Deenergisation (when a User has had to Emergency Deenergise as a result of the condition or manner of Transmission System operating outside of the Licensee's statutory requirements) as a Relevant Interruption.

CMP236 seeks to clarify that where station supplies are disconnected solely by National Grid plant or apparatus and the effect of this is to lose the generating units' output, this is a Relevant Interruption and that under the CUSC, Interruption payments can include these situations.

	**The Workgroup concludes:** That CMP235/CMP236 WACM4 best facilitates the Applicable CUSC Objectives (a) and (b) and therefore should be implemented.
	***Medium Impact:*** CUSC Parties, BSC Parties, National Grid Electricity Transmission plc

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Any Questions?

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About this document

The purpose of this document is to consult on CMP235/CMP236 with CUSC Parties and other interested industry members. Representations received in response to this consultation document will be included in the Code Administrator's CUSC Modification Report that will be furnished to the Authority for their decision.

Document Control

Version	Date	Author	Change Reference
1.0	16th April 2015	Code Administrator	Code Administrator Consultation to Industry

1 Summary

1.1 This document describes the Original CMP235 and CMP236 CUSC Modification Proposals (the Proposal), summarises the deliberations of the Workgroup and the options for potential Workgroup Alternative CUSC Modifications (WACMs). Prior to confirming any alternative proposals the Workgroup are seeking views on the options they have identified, what is the best solution to the defect and also any other further options that respondents may propose.

1.2 CMP235 and CMP236 were proposed separately by EDF Energy and submitted to the CUSC Modifications Panel (the Panel) for their consideration on 26th September 2014. Copies of these two Proposals are provided in Annex 1 (CMP235) and Annex 2 (CMP236). The Panel decided to amalgamate these Proposals (ensuring that there would automatically be two Workgroup Alternative CUSC Modifications included within the Final Modification Report which gives the option to implement these two Modifications separately) and sent the Proposal to a Workgroup to be developed and assessed against the CUSC Applicable Objectives. The Workgroup is required to consult on the Proposal during this period to gain views from the wider industry; this was done through the Workgroup Consultation.

1.3 The Workgroup first met on 30th October 2014. A copy of the Workgroup Terms of Reference is provided in Annex 3. The Workgroup have considered the issues raised by the CUSC Modification Proposals as part of their discussions, the Workgroup has noted that there are number of potential solutions to the defects CMP235/CMP236 seeks to address. These potential options for change are highlighted within the Workgroup Alternatives in Section 5 of this document.

1.4 The Proposal (CMP235) seeks to amend the description of an interruption to add a type of Emergency Deenergisation (when a User has had to Emergency Deenergise as a result of the condition or manner of the Transmission System operating outside of the Licensee's statutory requirements) as a Relevant Interruption. The Proposal (CMP236) also seeks to clarify that where station supplies are disconnected solely by National Grid plant or apparatus and the effect of this is to lose the generating unit's output, that this is a Relevant Interruption and that under the CUSC, Interruption payments can include these situations.

1.5 The Workgroup Consultation closed on 23 January 2015 and received six responses. The final Workgroup meeting was held on 10 March 2015.

1.6 The Workgroup developed five alternatives; two which were to progress CMP235 and CMP236 separately and three based on one alternative solution described in paragraph 5.8 – 5.9 of this report applied to the amalgamated Modification and the same solution applied to CMP235 and CMP236 separately.

1.7 The Workgroup voted by majority that WACM4 (which is an alternative to CMP235 alone) is the best solution and therefore should be implemented;

1.8 AT the CUSC Modifications Panel meeting on 27th March 2015, the Workgroup Report was presented to the CUSC Panel and the Panel agreed that the Workgroup had met their terms of Reference and accepted the Workgroup Report. The Panel agreed for CMP235/236 to progress to Code Administrator Consultation.

This Code Administrator Consultation has been prepared in accordance with the Terms of the CUSC. An electronic copy can be found on the National Grid Website http://www2.nationalgrid.com/UK/Industry-information/Electricity-

codes/CUSC/Modifications/CMP235-CMP236/, along with the CUSC Modification Proposal form.

National Grid's Opinion

1.9 National Grid preferred option is WACM4. National Grid does not support any of the modifications which include CMP236 i.e. the Original, WACM2, WACM3 and WACM5. National Grid believes that CMP236 is unduly discriminating against existing large directly connected demand customers who do not receive Interruption payments when they are disconnected from the grid. The loss of a generating unit is a consequence of losing station demand so in their view they are a 'Demand' customer in terms of losing station demand, and the loss of the Generating unit is a consequential loss. Secondly Generators with more robust demand connections will be subsidising users who have less robust connections due to their own commercial decision. This therefore leaves the original and WACM4. By tying down Interruption claims to specific events and conditions (which cover the majority of historic claims) as done in WACM4, this will help remove any grey areas making the claims process less subjective whilst also making it potentially simpler to audit and evidence any claim. This aim of WACM4 is not to reduce Interruption payments but to ensure Interruption payments are made for the right reasons thus benefitting all Users of the System who ultimately fund Interruption payments through their TNUoS charges.

2 Background

2.1 The CUSC currently provides the ability for Generators to claim compensation in the event an issue on the National Electricity Transmission System (NETS), caused solely by the Transmission Owner's (TO) plant or apparatus, which disconnects the generating unit from the NETS. The System Operator can issue instructions to generators in order to prevent damage or injury to persons, equipment or the NETS in return for compensation (paid to the generator). The principle of payment is clear for these types of events, i.e. an event beyond the control of the generator and due to the NETS.

2.2 However, the CUSC is silent on situations where National Grid (as the System Operator (SO)) and/or TO(s) operate the NETS outside of licence conditions, e.g. outside of technical parameters set out in the Grid Code. In these instances it is possible for a generator to self-disconnect from the NETS to avoid being exposed to dangerous system conditions that risk material damage to their plant or injury to persons. In these circumstances, a generator is not 'disconnected' by receiving an instruction from the System Operator; rather it disconnects itself as it is receiving a connection that is outside the legal operational requirements of the SO.

2.3 The CUSC also states in Section 5.2.2 *'If, in the reasonable opinion of a **User**, the condition or manner of operation of the **National Electricity Transmission System**, the **Total System** or any other **User's System** posers an immediate threat of injury or material damage to any person or to its **User's Equipment** or equipment for which the **User** is responsible…that **User** shall have the right to **Deenergise** its **User's Equipment** or equipment for which that **User** is responsible…if it is necessary or expedient to do so to avoid the occurrence of such injury or damage'.*

2.4 Whilst these instances are very rare[1], the Proposer considers it a defect that the CUSC does not explicitly cover Interruptions for transmission services outside these standards as the effect on the Generator is the same as if they had been physically disconnected.

2.5 Under a related issue, the CUSC states that an Interruption should be classified as Relevant resulting in the User being paid when the SO solely disconnects Balancing Mechanism Unit's (BMU) from the NETS. In most cases the SO would disconnect the generating unit(s) export BMU; although there have been several instances where the SO has disconnected the station supplies (the import BMU). When the import BMU is disconnected, this could (directly or indirectly) cause the generating unit(s) to lose their output. Although this is classed as a 'Relevant Interruption', National Grid believe that the payment made to the affected generator(s) can be £ zero as the Generating Unit(s) still have access to the NETS so are therefore classed as unaffected and National Grid believe this to be the intent of the (baseline) CUSC.

2.6 The Proposer believes that it is important that the CUSC is clear to ensure that arrangements are efficient and give confidence to connected parties. In most cases power station supplies (import BMUs) are connected to the same 'feeders' from the NETS as the export BMU However, in a few cases they are connected to different parts of the NETS, in these instances it is important that arrangements are clear within the CUSC to avoid different interpretations being made.

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[1] National Grid's Balancing Principles Statement Report
http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Balancing-framework/bpsr2013/

3 Modification Proposal

3.1 This Proposal (CMP235) seeks to amend the description in the CUSC of an Interruption and add Emergency Deenergisation by a User (as described in paragraph 2.3 of this report) as a Relevant Interruption.

3.2 Generators cannot operate their plant without access to the NETS but also without stable and good quality transmission connection in line with the Grid Code parameters or wider Transmission standards. Where the quality of the Transmission connection falls outside these parameters, this can cause serious damage or injury to persons, User's equipment or the NETS causing plant damage. In this instance a User has the right to deenergise its equipment to protect it from damage, or persons from injury, thus losing access to the NETS; however the CUSC does not currently cover this within the definition of an 'Interruption'.

3.3 A new Interruption type is therefore required to cater for these instances, so that a User that deenergises its equipment to protect it or persons from a Transmission connection that falls outside the technical parameters under the SO's Statutory requirements, will be eligible for a Relevant Interruption payment from National Grid in accordance with the CUSC.

3.4 It is proposed that the definition of 'Interruption' in the CUSC would change to include point (iii) below;

"Interruption" where either:-

(i) solely as a result of Deenergisation of Plant and Apparatus forming part of the National Electricity Transmission System; or

(ii) in accordance with an Emergency Deenergisation Instruction; or

(iii) in accordance with an Emergency Deenergisation by a User (under CUSC 5.2.2.) as a result of a problem on the NETS or the Licensee not maintaining quality of transmission supply within Licence Conditions.

3.5 This Proposal (CMP236) also seeks to make changes to the CUSC to clarify that where station supplies (import BMUs) are disconnected solely by the TO's plant or apparatus and the effect of this (whether directly or indirectly) is to lose the generating unit(s)' output then this should be classed as a Relevant Interruption under the CUSC. For avoidance of doubt, a BMU in this instance should be described as 'either an export BMU or an import BMU' as both can be deenergised and lead to an automatic power station shut down and be considered a Relevant Interruption.

3.6 Following acceptance of a Relevant Interruption, an Interruption Payment is calculated. The SO calculates the amount of 'Affected MW' by the interruption by deducting the sum of the Entry Capacity of the unaffected BMUs from the Transport Entry Capacity. It is at this point where the CUSC is not clear. National Grid interprets the CUSC such that, if Export BMU's have access to the system then they are classed as unaffected.

3.7 The term 'Unaffected BMUs' is not defined within the CUSC. It is proposed that the CUSC is changed to clarify that Export BMUs would be considered 'affected' when a generator has been interrupted as a direct result of the deenergisation of its import BMU by the SO or TO. National Grid could still reject a 'Relevant Interruption' claim where they considered that the generator had not acted in a reasonable and prudent manner to avoid being disconnected from the NETS.

4 Summary of Workgroup Discussions

CMP235

Presentation of Original Proposal

4.1 At the first Workgroup meeting, the Proposer presented the background and reasons for raising CMP235 and CMP236. The Original Proposal forms can be found in Annex 1 and the supporting presentation can be found on the National Grid Website[2].

4.2 The Proposer explained that CMP235 seeks to change the CUSC definition of Relevant Interruption payment so that an instance where a generator self-disconnects due to the System Operator not maintaining their licence standards can be included as a case where a generator can submit a claim for a Relevant Interruption payment. The Proposer clarified that all other CUSC arrangements around the application and payment of a Relevant Interruption payment would remain as the current CUSC baseline. The Proposer stated that in this new case, a reasonable and prudent operator test should not be required as it should be clear when the SO have operated outside of the licence standards.

Interpretation of current arrangements

4.3 The Proposer noted that the CUSC currently states that a User may have the right to de-energise its own equipment if the '*condition or manner of operation of the National Electricity Transmission System…poses an immediate threat of injury or material damage to any person or to its User's Equipment or equipment for which the User is responsible'*. The Proposer noted that the CUSC allows for a Generator to receive a Relevant Interruption payment if they are given an Emergency Deenergisation Instruction (EDI) from the SO in similar circumstances. However it is not clear why a generator can disconnect itself from the Transmission System for the same reasons the SO would need to issue an EDI, and for this not to be classed (in the CUSC) as a Relevant Interruption, resulting in the Generator receiving no Interruption payment. The Proposer clarified that CMP235 is aiming to link the right that generators have to self-disconnect to the right to apply for a Relevant Interruption payment.

Scale of the defect

4.4 Within the first Workgroup meeting, the Proposer presented a graphical summary[3] of Relevant Interruption claims submitted and paid in recent years based on data they had collected from information sources such as National Grid's Balancing Principles Statement Report. However, the number of Relevant Interruptions or payments made which relate to instances where a generator has disconnected its own station due to the SO operating outside of licence standards was unknown. The National Grid representative confirmed that no payments had been made. The Workgroup discussed whether this information should be publically available; it was the Proposer's view that the SO should publish this information for transparency reasons. One Workgroup member explained, for example, if there was a one off self-disconnection at a 15MW

[2] CMP225/CMP236 Workgroup Information on National Grid website
http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP235-CMP236/

[3] Proposers presentation can be found within the Workgroup documents on the National Grid website;
http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP235-CMP236/

power station in the north of Scotland then the scale of the Modification would be substantially different to frequent self-disconnection at a 3GW power station in England. Without this information, the Workgroup agreed that it would be difficult to measure the scale of the Modification; both in terms of the defect and the potential impact on Industry Parties and consumers.

4.5 The Workgroup noted that information on specific instances and claims would be required to help assess the impact of this Modification; however this information would most likely be confidential and not publically available. It was agreed that the Workgroup should first identify what information is published by National Grid and would be available to the Workgroup. The Workgroup also considered the impact this Modification would have on the total value of Relevant Interruption payments currently made. The Proposer estimated that a total of £1.6million had been paid out over the past ten years which he considered a small amount. One Workgroup member suggested that this figure would have been significantly higher if payments were made for the instances covered in CMP235 and CMP236. One Workgroup member noted that the impact would be determined by the value of the claim and suggested that there could be a large impact on TNUoS charges if there was a claim with the value of over £1 million which was later presented by the National Grid representative as being possible (see paragraph 4.6 below). In order for the Workgroup to fully understand the value and impact of a claim, the National Grid representative took an action to provide an example of a hypothetical claim with a disconnection over 48 hours.

4.6 At the second Workgroup meeting, the National Grid representative presented cost analysis based on a disconnection of an indicative 1,000MW power station for one day. It was noted that this disconnection could result in a Relevant Interruption payment of up to £1.1million over the first 24 hours. The National Grid representative noted that after the first 24 hours of disconnection, the Generator will receive a payment equivalent to the Generators specific daily TNUoS liability or the previous year's average daily TNUoS Liability (whichever is the higher). The daily TNUoS charge is dependent on the actual TNUoS charges payable by the Generator and the year in which the claim is made. Therefore providing a range is only a snapshot. CMP213 does bring down the range of charges; however the highest charge under TransmiT would be for an Offshore Wind farm as they have relatively high local circuit charges. For 2014/15 the highest daily TNUoS charge payable would be around £70k. You could therefore say that a fictitious 1000MW offshore in Scotland would be ~100k. A small wind farm (in terms of MW's) in Scotland would have a daily TNUoS charge of around £600 a day. The daily TNUoS charge would never go negative as it is the highest of the actual and average charge. One Workgroup member noted that if a generator was only disconnected for half an hour, their Relevant Interruption payment would be around £10k and therefore would only cover a small percentage of the actual losses incurred by a generator when disconnection from the NETS. The National Grid representative also clarified that the Relevant Interruption payment was for loss of access to the NETS, and not to cover any other costs. Based on this discussion, the Proposer noted that the occurrence of generators self-disconnecting should not increase as a result of this modification as the Relevant Interruption payment is not a high enough value to provide a financial incentive for them to do so and that self-disconnection is usually avoided as much as possible. The majority of Workgroup members agreed that it should not lead to a change in behaviours or lead to frivolous claims in this respect given generator's licence conditions. However it could potentially increase the number of Generators receiving Relevant Interruption payments depending on the likelihood of these situations and success of each claim.

4.7 The Workgroup also noted that it may be difficult to quantify the costs to businesses and consumers in a meaningful way. One Workgroup member explained that, if a generator is taken off the NETS and incurs a loss of £1m and assuming it's a Relevant Interruption, receives a payment from National Grid, this payment will most likely not cover the costs

incurred of £1m. The Workgroup member also noted that it could be argued that the cost to businesses and consumers is negligible or zero. If there is no Relevant Interruption payment made, then the generator would have to recover that cost (£1m) from their customers, whereas if a Relevant Interruption payment is made, then the £1m is recovered from all parties. The Workgroup agreed to ask a consultation question on the potential impact on businesses and consumers. One Workgroup member also noted that the Workgroup should consider what would happen in the event of a transmission system collapse. (This is classed as an Allowed Interruption in the CUSC. A Relevant Interruption is an Interruption which is not an Allowed Interruption. Only Relevant Interruptions receive a payment)

Operation outside licence standards

4.8 CMP235 seeks to include the instance where a generator self-disconnects due to the SO operating outside its licence standards into the CUSC definition of a Relevant Interruption. By operating outside of the licence standards, this could expose dangerous system conditions that risk material plant damage or injury to persons; the Proposer noted that in these situations a generator would have no choice but to self-disconnect.

4.9 The Workgroup agreed that Generators are essentially paying for a service of a certain standard and when the SO operates outside of their licence standards, it is not providing the standard of service expected or paid for. Therefore, a generator should be entitled to make a claim for 'compensation' to cover costs for the period of time it did not receive the service it had paid for, regardless of how the generator was disconnected.

4.10 One Workgroup member's view was that when the SO operates outside licence standards causing the generator to self-disconnect, any payment made to generators disconnected from the system should not be recovered through TNUoS tariffs, rather should be paid directly from the SO itself. The Workgroup member suggested that, as the SO in this instance would not be complying with a legal agreement, the SO should make a Relevant Interruption payment and not recover the costs in doing so from other Industry Parties. Instead, this payment should come directly from the SO. The same Workgroup member noted that this method would provide a financial incentive for the System Operator to remain within its licence standards, which does not currently exist. One Workgroup member noted that it is important to ensure the right incentives are in place for both the System Operator and the Generator in relation to CMP235. The Proposer clarified that CMP235 is not proposing to change rules around how Relevant Interruption payments are made and subsequently recovered by the relevant TO's and SO.

4.11 One Workgroup member questioned whether CMP235 would cover the specific triggers that would cause the SO to operate outside the licence standards such as faults, misuse of equipment, frequency response, harmonics etc. The Workgroup member noted that certain triggers are out of the SO's control and therefore maybe should not be included within the Modification. The Proposer noted that the SO is ultimately responsible for the safe and proper operation of the NETS and that CMP235 would not consider the specific instance which caused the SO to operate outside its licence standards as there could be dozens of options and may leave more room for interpretation.

4.12 One Workgroup member suggested that because harmonics are out of the control of the SO, if this Modification is implemented, this may increase costs to the end consumer through increased expenditure on assets (both TO and Generation) specifically built to reduce conditions resulting in Relevant Interruption payments. Another Workgroup member noted that standards are generally not the same for all generators and change depending on location of a generator so this would be difficult to measure.

4.13 One Workgroup member queried what typical 'licence' conditions are envisaged in the Proposal and what would typically constitute the transmission system operating outside of these conditions. For example, the Grid Code criteria which a generating unit is required to meet in respect of voltage tolerance, fault ride through, frequency range, phase unbalance and harmonic content, provide for a fairly wide range of allowable 'licence conditions'. To therefore list a set of requirements/conditions would prove problematic as this list would be lengthy and refer to a number of different codes and agreements. The list would be generator specific and would need to be constantly updated as requirements change. It would be more efficient for a generator to show when making a claim where they feel National Grid or the system is operating outside of any limits, or for National Grid to list those limits for which a Relevant Interruption payment would not be made if a Generator de-energised (i.e. Harmonics).

4.14 It was suggested that a potential alternative to this Modification, should list the specific triggers which would cause the SO to operate outside its licence standards, and can be managed by the SO (therefore classed as Relevant Interruptions), This would seek to avoid Relevant Interruption payments for events which are out of the control of the SO, recognising as stated that the submission of a claim does not always result in an Interruption Payment. A few of the Workgroup members agreed with this option. The National Grid representative noted that listing every specific trigger which would cause the SO to operate outside its licence standards would not be possible as there would be too many to list. It was noted that any disconnection is assessed on a case by case basis including whether / how the SO has operated outside the licence standards.

4.15 The Proposer further highlighted that CMP235 is not about clarifying the different situations and scenarios when a claim should be accepted as a) National Grid's licence conditions are clear and b) there would be too many scenarios to cover. CMP235 is about creating a route to be able to claim when a generator as a result of the NETS going outside its legal requirements has had to involuntarily self-disconnect to protect damage to persons or plant as allowed under section 5.2 of the CUSC. The relevant merits of the claim will be decided once a claim is raised as in their view it's pretty clear National Grid will not pay out for circumstances it does not feel responsible for.

4.16 However, the Proposer highlighted a real life example where a claim under CMP235 would be allowed is where Grid suppliers fall to two phases instead of three creating phases imbalance such that the generator has to involuntarily shut down to prevent damage or industry to persons or User's system and/or equipment as per section 5.2.2 of the CUSC. Workgroup members discussed this scenario and all agreed that a payment would be expected in this situation.

<u>Possible incentives</u>

4.17 One Workgroup member suggested that if this Modification was implemented, it may provide an incentive for generators to self-disconnect for financial gain which would increase the cost of balancing the transmission system. Another Workgroup member noted that the Relevant Interruption payment only makes up a small proportion of the actual costs incurred by a generator by disconnecting from the NETS and therefore would provide no incentive for the generator to self-disconnect. The National Grid representative noted the aim of a Relevant Interruption payment is not to compensate for losses incurred by a generator by disconnecting from the NETS; its aim is to make a payment for loss of access.

4.18 The Proposer noted that the SO has an incentive to maintain a stable system for their customers and energy consumers. The Workgroup discussed whether there was a requirement for generators to remain connected during times of system instability. One Workgroup member noted that a generator would try their hardest to avoid being disconnected from the NETS as it is disruptive and expensive.

4.19 The Ofgem representative suggested that an alternative solution could be that National Grid improves its reporting on Relevant Interruptions (see existing Balancing Services Statement Report[4]) and provides a narrative for each interruption event. This would provide transparency and would give National Grid a reputational incentive to ensure an efficient operation of the National Electricity Transmission System. The National Grid representative noted that whilst this could not technically be an alternative (as it doesn't provide a solution to the defect) National Grid could consider improving the transparency of their reporting on Relevant Interruptions.

Potential impact

4.20 The National Grid representative questioned whether there was any discrimination against demand customers with CMP236 as directly connected demand customers do not receive Interruption payments when their supply is interrupted. They could also have increased TNUoS charges as a result of CMP236 with no increased benefit. Another Workgroup member noted that if there is discrimination, this already exists within the CUSC and should be considered separate to CMP236. It was also noted that in any case there was already an incentive placed on the SO by Ofgem to minimise demand interruptions.

4.21 The National Grid representative also noted that CMP224 was recently implemented which introduces a cap on the generation proportion of the G:D Split to what is set within the EU Regulation 838/2010. This range is currently set at €0-2.5 /MWh. The GB TNUoS charges for generation are currently close to the upper €2.5 limit. Therefore any increase in allowed revenues due to an increase in the number of claims receiving Interruption payments would likely be picked up by demand customers and not Generators through increased TNUoS demand charges. However, the majority of Workgroup members agreed this was a separate issue.

Burden of proof on the Generator / SO

4.22 The Workgroup discussed the burden of proof for both the Generator and SO to provide in the instance of a Relevant Interruption claim. One Workgroup member stated that there should be an onus on both the generator and SO to provide as much relevant information as possible to support the claim so as not to restrict or frustrate the claims process.

Potential options for change

4.23 The Workgroup considered potential options for change other than the Original Proposal. It was agreed that there should be options to implement (i) only CMP235 or (ii) only CMP236 as well as the amalgamated modification; this would allow Ofgem, if they wanted to, to reject one Modification or the amalgamated Modifications.

4.24 The Workgroup also noted that an alternative that lists or describes what would be classed as a Relevant Interruption and/or an Allowed Interruption when the NETS is operating outside licence standards, should be included within the Final Workgroup Report.

[4] National Grid's Balancing Principles Statement Report http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Balancing-framework/bpsr2013/

Post-Workgroup Consultation discussions

4.25 The Workgroup met to discuss the six responses received to the Workgroup Consultation, it was noted that four of the responses were from Workgroup members. These Workgroup members were given the opportunity to discuss their responses with the rest of the Workgroup. The Proposer noted that generally the majority of the responses seem to be aligned and in agreement with the overall principle of the Proposal and suggested solutions.

4.26 The Ofgem representative noted that within the Proposer's response to the Workgroup Consultation, the Proposer stated that there were 48 claims that had been submitted to National Grid and only a few of these were paid. The Ofgem representative questioned whether National Grid could provide any information on the value of these claims if they were accepted. A Workgroup member noted that this value could vary significantly as some claims have a value of less than £5k and other up to £1m. The National Grid representative took an action to see if this information can be provided to the Workgroup.

4.27 In the final Workgroup meeting The National Grid representative noted that they had looked into this and that the information could not be published. However, it may not be truly representative of what could come in the future, stating that there may have been dozens of small claims over the past ten years, however there may be a large claim of over £1m in the future. Without reviewing every single claim and assessing under each alternative it is impossible to assess the impact of the proposal, plus this information would only show what would have been paid out and does not forecast the future. However, he stated that some claims may still be rejected post CMP235/236 as it is difficult to know why claims are being rejected and CMP235/236 may not cover all these reasons. He noted however that this information may be more useful for any impact assessment of the modification and is not required to inform the Workgroup vote. He noted that from the data that is available, it is clear that these claims are not significant in terms of TNUoS charges. The Proposer noted that it would be useful to have this information, however noted it's not required for the Workgroup vote.

4.28 A Workgroup member noted that they are not fully aware of the current existing arrangements within the CUSC. The Workgroup have discussed that there is currently room for interpretation and that there needs to be further clarification within the CUSC of when a generator is able to claim, however the Workgroup member noted that National Grid's interpretation of the current wording within the CUSC is not clear, and if this is not clear, it is uncertain what benefit CMP235 will bring. For example, the Workgroup member noted that when part of the transmission system is deenergised (energy unbalance), it prohibits a unit from synchronising. He questioned whether National Grid would consider this currently as a relevant interruption and suggested changing the legal text to also reflect a unit that had been prevented from fully energising. The Workgroup member also noted that in previous discussions, the Proposer had used the example of the loss of a phase on the transmission system causing a generator to trip off the system, In his view, this should be covered as a Relevant Interruption as a generator cannot synchronise with only two phases. The original modification seeks to ensure that Generators receive Interruption payments when they are denied access to the System through no fault of their own, so the Proposer's view is that the principle is the same for Synchronisation.

4.29 The National Grid representative clarified that as the CUSC is currently written, it would not cover the loss of a phase causing an interruption. A Workgroup member noted that they thought that this would be covered by the current wording within the CUSC and noted that a loss of a phase qualifies as deenergisation of the NETs so therefore it must pass the test in terms of causing an interruption. Another Workgroup member noted that

if the Workgroup thinks this should be included within the Modification, it should be written into an alternative.

4.30 One Workgroup member noted that unless it is clearly written that an interruption payment can be paid as a result of the loss of a phase, it is open to interpretation. Another Workgroup member noted that whilst this could be done, there are so many other situations which could potentially cause a Relevant Interruption, it is impossible to name them all.

4.31 A Workgroup member's view was that if a generator is told that they will have access to the transmission system at a certain time and they are unable to synchronise at this time because part of the transmission system is deenergised, then this should be classed as a Relevant Interruption. The National Grid representative took away an action to clarify whether prevention to synchronise is classed as a Relevant Interruption. The Workgroup member noted that there are many instances like this that are unclear within the current CUSC wording, even with the suggested legal text (from the Original Proposal form) and more clarity is required for this Modification to be effective. Another Workgroup member's view was that if the User cannot synchronise or is interrupted and it is not their fault, the majority of time National Grid should allow the User to make a claim and National Grid should pay. Another Workgroup member noted that even if it is not the users fault they have been disconnected, it will not always be National Grid's fault i.e. a third party.

4.32 Within the final Workgroup meeting, the National Grid representative noted that the current CUSC wording does not cover a generator not being able to synchronise. A Workgroup member noted that this should be covered by the CUSC and should be included within any proposed alternative to CMP235/236. The Proposer noted that, the CUSC, like most codes, is a work in progress and there are many things that don't quite work, however this was not explicitlycovered in the original defect of CMP235/236 but could be covered by any alternative to the Original solution.The Workgroup discussed whether including failure to connect as a relevant interruption would be in scope of this Modification. Some Workgroup members felt that it would be in scope as a Relevant Interruption is not solely about disconnection from the transmission system. The Workgroup agreed that the principle of Interruption revolves around access to the system and lack thereof.

4.33 A Workgroup member noted that in their response, they had raised a few concerns with the proposal and sought clarity from the proposer and the Workgroup. He noted that by proposing to allow a self-interruption when National Grid operates outside its operational limits, it is effectively managing National Grid's operation and still leaves room for interpretation. However if a number of instances in which a generator is able to claim is outlined, it will be clear when a generator is able to claim and when they are not.

4.34 The Proposer noted that the Workgroup have already considered providing a list of triggers that cause a Relevant Interruption, however this list could not be exhaustive as there could be hundreds of possibilities. Although he also noted that currently if National Grid makes a decision on whether they pay a claim or not, it should set a precedent, however it is not recorded anywhere as the information is commercially sensitive so they could choose not to pay under a similar instance in the future. One Workgroup member noted that disputes should be published so if a decision is disputed, then this would surely set a precedent.

4.35 The Workgroup considered whether a guidance note could be published as a result of CMP235 which sets out instances in which National Grid would pay a Relevant Interruption claim, and if so whether this should be produced as part of the Modification process or after a decision by the Authority. The Proposer felt that this could be covered under a different Modification based on information published regarding relevant

interruptions, however other Workgroup members felt that without a guidance note, CMP235 would not be effective. Workgroup members also felt that this list would need to be agreed by the Industry and not just developed by National Grid which could mean it taking months to produce and delaying the CMP235/236 CUSC Modification process. The majority of the Workgroup felt that there would be merit in including the guidance note within the CMP235/236 Modification report for Ofgem to consider, rather than producing it following an Authority decision. The Ofgem representative took an action to report back to the Workgroup to inform them whether Ofgem felt that this was an appropriate process to follow. Prior to the final Workgroup meeting, the Ofgem representative circulated an email stating that they will assess the Final Modification Report against the Applicable CUSC Objectives, the legal text, and would not give a view on any guidance note. However he noted that it was up to the Workgroup to decide whether a guidance note would be required and how it should be produced.

4.36 A Workgroup member questioned whether by providing a guidance note which sets out the instances in which relevant interruption payments would be made, the need for CMP235 would fall away. The Proposer felt that CMP235 is still required in order to provide the mechanism that allows a user to make a claim. Another Workgroup member noted that not all parties will agree with what is within a guidance note, even if it is developed with industry engagement, and if this is the case, what option will parties have to challenge and change the guidance note.

4.37 The National Grid representative agreed to take an action to draft a methodology statement on how a guidance note would be drafted and agreed along with timescales for the Workgroup to consider. A Workgroup member suggested that all Workgroup members can contribute to the guidance note and asked Workgroup members to send their ideas to the National Grid representative of what should be included.

4.38 The majority of the Workgroup felt that they were not in a position to vote until the actions from this meeting had been completed and it was clear whether a guidance note would be included within the Final Modification Report to the Authority.

4.39 Within the final Workgroup meeting the National Grid representative noted that the Workgroup and National Grid had started to draft a guidance note which could be included within one of the final CUSC Modification Reports. He noted that this would be a National grid owned document, however would welcome expertise from the Industry to help draft it. One Workgroup member noted that it might be helpful to have a guidance note to explain what would be paid under current arrangements in the CUSC. The Proposer noted that this would not necessarily be needed as the proposed solution addresses the defect outlined in the Original Proposal form. The Workgroup agreed that it would be nice to have a guidance document; however it would not be a prerequisite for voting on CMP235/236 as it had no legal standing.

CMP236

Presentation of Original Proposal

4.40 At the first Workgroup meeting, the Proposer presented the background and reasons for raising CMP236. The Original Proposal forms can be found in Annex 2 and the supporting presentation can be found on the National Grid Website[5].

4.41 The Proposer explained that CMP236 seeks to clarify the current CUSC text such that when system supplies to a power station are disconnected leading to the interruption of an export BMU(s) and the SO agrees it is a Relevant Interruption, the SO will consider the export BMU(s) affected in the calculation of the Relevant Interruption payment, regardless of whether the export route is still available.

Interpretation of current arrangements

4.42 The Proposer believes that the current wording within the CUSC leaves room for interpretation. This has resulted in generators not being able to generate due to a Relevant Interruption, but due to the interpretation made of the CUSC by National Grid, no payment was made. The National Grid representative noted that no payment was made even though it was classed as a Relevant Interruption, as Relevant Interruption payments are based on the amount of 'affected MW' and when station supplies (from an import BMU) are disconnected, an export BMU may still have access to the System. It was also noted that, even though an Export BMU may still be connected to the transmission system, a generator may not be able to export once its supplies have been disconnected. In this instance, there would be no 'affected MW' as the export BMU still has access to the NETS and therefore the calculation of the Relevant Interruption claim will equal £ zero.

4.43 The National Grid representative noted for clarification National Grid's current interpretation. If National Grid disconnects a generator so that it could not export and the Interruption is subsequently classed as a Relevant Interruption then the generator would receive a positive Relevant Interruption payment. If National Grid disconnected a power stations supplies resulting in them not being able to generate and it was subsequently classed as a Relevant Interruption then the Relevant Interruption payment would equal £ zero.

4.44 The Proposer noted that this appears to have not always been the case and in some instances, the SO has made a payment to the claimant. One Workgroup member questioned whether there are any clear distinctions between these different claims as to why one had been paid and the other had not. Another Workgroup member noted that the different treatment of these claims may have been down to power station design.

Power Station design

4.45 The Workgroup discussed the issue of power station design and how this may affect the impact of the System Operator operating outside licence standards on the Generator.

4.46 One Workgroup member suggested that generally, some power stations are designed with more than one station transformer, and therefore the supply to the power station would not necessarily be lost if one transformer is disconnected. However, it was noted that even with two power station transformers supply to the power station could still be

[5] CMP225/CMP236 Workgroup Information on National Grid website http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP235-CMP236/

lost. Another Workgroup member noted that some power stations have all of their supply coming through one transformer and therefore if that transformer is disconnected the supply to the power station will be lost and they will be unable to operate. The Workgroup recognises that the defect of CMP236 may only be applicable to those power stations that only have one station transformer and import BMU.

4.47 The Workgroup also discussed whether it would be fair to provide Relevant Interruptions payments to generators that had made a commercial decision to have only one import BMU where others had included more to ensure efficient operation of their plant. One of the Workgroup members pointed out that pre-vesting, a generator did not make this commercial decision and the correct design of their plant may have been with only one import BMU, however post-vesting, power station design was down to the individual developer. However, Workgroup members agreed that it was unlikely that generators would invest to reinforce their power station suppliers due to the high cost of doing so and the low likelihood of interruption.

4.48 One Workgroup member noted that it would be useful to illustrate the differences in power station connections and discuss how Interruption Payments could be made based on the different power station design. The Workgroup discussed three standard power station connections and how the proposed solution would apply to each generator. These were; (a) a power station with just one station transformer (b) a power station with two station transformers and (c) a connection where the station supplies are downstream of the station transformer. The Workgroup discussed which of these instances would receive a Relevant Interruption payment under the Original Proposal.

4.49 The Proposer noted that it is very difficult to define precise instances in which a Relevant Interruption payment could have been made, and that in reality there are more power station designs than the three illustrated within the Workgroup meeting. The Workgroup agreed and suggested that it would be useful to understand how many power stations have separate station transformers. A Workgroup member suggested that a potential solution to the defect could be based on the loss of an importing BMU only where the exporting BMU is reliant on the importing BMU being part of the normal operating arrangements as per the original compliant design of the power station. The National Grid representative noted that it is very difficult to define a station transformer and the reality is, all connections are bespoke and it would not be realistic to attempt to treat different power stations differently under CMP236 based on their individual design. The National Grid representative also noted that just because a generator may have more station transformers, this does not necessarily mean that they have increased security in terms of supply. The Workgroup generally agreed that generators should be treated the same under CMP236 regardless of their individual power station design.

4.50 It was suggested that in the event that the deenergisation of an import BMU, which subsequently affects an export BMU, the Generator should receive a payment regardless of power station design. The Workgroup generally agreed that generators should be treated the same under CMP236 regardless of their individual power station design.

4.51 One Workgroup member questioned whether the arrangements proposed under CMP236 would have any impact on investment decisions of developers as it could encourage different design and operation of their power station. The Proposer believed that the price and likelihood of a Relevant Interruption payment would be so low it would not affect investment decisions and if this was the case, it would be evident already, which it is not. The Proposer clarified that this modification was not aiming to change any value of payments.

4.52 One Workgroup member asked what the arrangements were for offshore generators. There was a general understanding in the Workgroup that offshore generators have

different arrangements, however, the National Grid representative took an action to find out what happens on the offshore network in terms of Relevant Interruption payments. The National Grid representative later noted that if an onshore Transmission Owner interrupts them they would be treated the same (assuming their agreement allows them to submit a claim i.e. single circuit). If a fault happens on the offshore network, then this is taken into account in the availability incentive which may result in reduced revenues for the OFTO which flows through to TNUoS charges paid by the offshore generator.

Definition of Relevant Interruption

4.53 One Workgroup member noted that the definition of Relevant Interruption within the CUSC states that a generator must be deenergised or have a MEL of 0 in order to claim for a Relevant Interruption payment.

4.54 A Workgroup member noted that CMP236 is not about determining whether a disconnection should be classed as a Relevant Interruption or not, it is an issue with the calculation of the Relevant Interruption payment to ensure where a Relevant Interruption has been agreed an Interruption Payment is made. One Workgroup member suggested clarifying within the legal text to make sure it captures the associated import BMU with the export BMU when processing a claim to establish a link whilst keeping the provisions within the CUSC the same.

Post-Workgroup Consultation discussions

4.55 The Workgroup considered the responses to the Workgroup Consultation and specific comments made in relation to CMP236. One Workgroup member referred to their own response questioning how the demand BMU is related to the generation BMU. The Workgroup member noted that within the Original Proposal, there seems to be some relationship between the demand BMU and the generation BMU and the proposal seems to clarify this within the CUSC. However, the Workgroup member did not feel that this was the case with all generators, and that some pre-notification needs to be made by generators stating this. This would prevent generators claiming there is a relationship to receive a relevant interruption payment when there is none.

4.56 The Workgroup believed that only generators that are reliant on their demand BMU should be eligible for a relevant interruption claim under CMP236. A Workgroup member felt that if a generator is reliant on their demand BMU this needs to be declared upfront in the connection agreement. The same Workgroup member felt that as not all generators would be eligible due to station design, this could be discriminatory as all generators are liable to pay TNUoS charges which recover the claims paid out for relevant interruptions.

Dispute resolution

4.57 One Workgroup member questioned whether there is a dispute resolution for when the SO does not make a payment for a Relevant Interruption and whether this has been used before. Another Workgroup member stated that an option is arbitration, although this is rarely used and that one reason for this Modification is so that Users won't have to use arbitration.

4.58 Following the Workgroup Consultation, the Workgroup discussed the dispute process and a Workgroup member requested information from National Grid to understand reasons why some claims have been rejected in the past and questioned if parties were allowed to dispute the decision to reject a claim. The Code Administrator and Ofgem both took actions to report back to the Workgroup on the amount of disputes against decisions on Relevant Interruption claims that there had been over the past few years. Prior to the next Workgroup meeting, the Ofgem representative circulated an email

stating that they had received no disputes to the claims process. It was also noted that National Grid had not received any disputes over claims. Ofgem only reviews disputes in the second instance with reference to connections or charging. In this instance, it should be Elexon which reviews disputes in the second instance.

4.59 The National Grid representative noted that he could not provide any additional information on why claims were rejected as this involves commercially sensitive information. The Workgroup agreed that this was not necessarily to inform the Workgroup vote. The Proposer noted that some information is provided within the Relevant Interruptions Claims Reports which are submitted quarterly to the CUSC Modifications Panel.

4.60 A Workgroup member thought that it seemed clear that Users don't have faith in the dispute process and agreed to take this issue to the CUSC Panel to request to add it to the Terms of Reference for the Governance Standing Group.

Legal text

4.61 The Proposer provided some draft legal text for both CMP235 and CMP236 to the Workgroup as an indication of what might need changing within the CUSC. This can be found within the CUSC Modification Proposal forms within Annex 1 and Annex 2.

CMP235/236 Terms of reference

4.62 The Workgroup went through the Workgroup Terms of Reference for CMP235/236 and agreed that they had discussed and considered the scope of work set out by the CUSC Panel in September 2014. The scope of work is outlined below;

a) Interaction of the proposals with the Grid Code, SQSS, Bilateral Agreements and the Transmission Licence.

4.63 The Workgroup recognised the link with the operating parameters set out within the Grid Code which the SO are obliged to remain within. One Workgroup member noted that in principle, there should be no impact on other codes, licences or agreements as this Modification does not propose to change any processes. However, the Workgroup agreed that a Workgroup Consultation question should be asked to enquire if there is any interaction with other codes, licences or agreements.

b) Whether there should be a Reasonable and Prudent Operator test applied to the actions of the System Operator and the User who disconnects

4.64 The majority of the Workgroup agreed that there should be a need for a Reasonable and Prudent Operator test applied to the actions of the SO and the User who disconnects.

c) The burden of proof on the claimant to provide evidence to support their claim.

4.65 One Workgroup member suggested that it should be expected that with any claims there would be some proof from the claimant to why they disconnected themselves. Another Workgroup member noted that it would be up to all relevant parties to provide the information about the incident to allow the SO to make an informed decision.

d) Whether there is a different impact on different generation technologies.

4.66 The Workgroup agreed the Modification was technology neutral and that there was no different impact on different technologies as these Modifications were merely extending the current CUSC compensation rules. It was agreed to include this as a question within the Workgroup Consultation.

e) Which specific technical conditions lead to compensation

4.67 The Workgroup discussed the power station designs which may influence whether the power station will need to disconnect from the NETS or not. The Workgroup concluded that any disconnection from the NETS should be considered the same and eligible for a Relevant Interruption payment regardless of power station design.

f) Which circumstances leading to loss of access are insurable for generators and which should be centrally mutualised?

4.68 The Workgroup did not originally consider any circumstance leading to loss of access to the NETS insurable for generators but included this as a question within the Workgroup Consultation.

g) Implementation

4.69 The Workgroup agreed that if implemented, CMP235/CMP236 should be implemented 10 Working Days after an Authority decision.

f) Review Illustrative legal text

4.70 The Proposer and Workgroup suggested how the legal text within the CUSC should be changed, however this will be drafted for the Original and any alternatives after the Workgroup Consultation.

5 Workgroup Alternatives

Potential options for change

5.1 At the CUSC Panel meeting on 26th September 2014, the Panel decided to amalgamate CMP235 and CMP236. On this basis, the CUSC Panel agreed that there should automatically be two Workgroup Alternative CUSC Modifications provided within the Final Modification Report submitted to the Authority which ensured that there were options to implement either (i) CMP235 or (ii) CMP236 separately as well as the amalgamated Modifications as per the Original solution.

5.2 The Workgroup met once the Workgroup Consultation closed to discuss whether to take forward any further WACMs for CMP235/236.

5.3 The Workgroup considered whether any alternatives should be more specific in referencing the 'licence requirements' as some Workgroup members felt the Original is open to interpretation. It was agreed that any alternative should be more specific in what would cause a Relevant Interruption. The Workgroup discussed which requirements should be referred to within any alternate to the original that may be agreed by the Workgroup. A Workgroup member noted that the Grid Code refers to the transmission conditions that a generator should meet and is generally a user facing requirement. However, it was also noted that the Grid Code specifically laid out NGET's obligations that it needed to meet under its licence and that within the connection conditions, there are references to the document applying to NGET. Another Workgroup member noted that in his view these don't apply to NGET, however the SQSS would be a more relevant document to refer to licence conditions. The proposer asked the NG representative to confirm whether the Grid Code did apply to NGET as this was a fundamental part of CMP235. The National Grid representative confirmed this later in the meeting after consulting colleagues - see point 5.6 below.

5.4 It was noted by the Proposer that by referencing current licence conditions within the CUSC, it would keep it simple and clear rather than introducing added complexity of listing out instances which may cause a Relevant Interruption, even if it were only major events.

5.5 One Workgroup member noted that the Workgroup may be leaving the modification open ended and open for interpretation by stating 'licence conditions' within the legal text. He noted that the Workgroup need to be clear what these are and what document they are in (Grid Code or SQSS) in any alternate modification to CMP235/236. The Proposer believed that Licence conditions covered NGET's obligations under both the Grid Code and SQSS amongst others. A number of other Workgroup members did not feel that this was the case.

5.6 The Proposer noted that there were potentially two options, 1. Define every event which could cause a relevant interruption (which he noted would be extremely difficult and impractical to put into the CUSC as it may also be open to interpretation) or to reference National Grids licence conditions in the draft legal text which are written clearly in several codes and documents. , This would then be considered once a claim was raised. The Workgroup noted that these requirements are within the Grid Code and the SQSS and discussed which would be more appropriate to reference these within the legal text. The National Grid representative noted the Grid Code aligns with the SQSS, so therefore it would be appropriate to refer to specific Grid Code requirements which they have to comply with. The proposer agreed these obligations would be captured by referencing NGET's licence obligation which requires the Licensee to comply with Grid Code and SQSS.

5.7 Prior to the final Workgroup meeting, a Workgroup member circulated an email detailing a proposed alternative to CMP235/236 while the National Grid representative, circulated examples of what could be included within the guidance note as requested in an earlier Workgroup meeting. National Grid proposed an alternative to the Workgroup which was in line with the email circulated by the other Workgroup member. The other Workgroup member left the Workgroup meeting before the vote, however discussed with the National Grid representative and the Workgroup whether the alternative being proposed by National Grid covered the 4 specific events outlined in his email. National Grid confirmed this and added that they would also refer to specific clauses in the Grid Code as well as add specific events dealing with Frequency and Voltage. The Workgroup member confirmed that they were happy that this alternative could be progressed as it was in line with what they had suggested via email and didn't remove anything and therefore they would not need to raise any further alternatives to National Grid's Workgroup alternative. The Workgroup members original email/alternative stated the following as specific events which would form part of an alternative;

1. Loss of one or more phase of the transmission system such that a generator is unable to export power on to the transmission system. (CMP235)
2. Loss of one or more phase of the transmission system to a station transformer that supplies auxiliary supplies to the generator such that the generator is unable to export power on to the transmission system. (CMP236)
3. Loss of one or more phase of the transmission system such that a generator cannot synchronize to the transmission system as planned. (CMP235)
4. The disconnection of a generator or station transformer from the transmission system when the transmission system is operated in operational timescales with "unacceptable voltage" or unacceptable frequency" as defined in the SQSS . (CMP235/236)

5.8 The effected BMU's where a station transformer is disconnected are those that disconnect at the associated station (as defined in Appendix C of the connection agreement) within 10 seconds of the event **and** the linkage between the demand BMU and the generation BMU's has been previously notified to National Grid under the "other relevant information" section of the Grid Code dispatch procedure.

5.9 National Grid's alternative (WACM3) stated the following;

1. Energy Unbalance clause referring to the Grid Code CC6.1.6 (This would cover point 1 of GdF's email)

2. Frequency outside ranges listed in Grid Code CC6.1.3 (This would cover point 4 of GdF's email)

3. Voltages outside of the limits specified in Grid Code CC6.1.4 (This would cover point 4 of GdF's email)

4. Loss of one or more phase of the transmission system such that a generator cannot synchronize to the transmission system as planned. (This covers point 3 of GdF's suggested alternative)

5. The effected BMU's where a station transformer is disconnected are those that disconnect at the associated station (as defined in Appendix C of the connection agreement) within 10 seconds of the event and the linkage between the demand BMU and the generation BMU's has been previously notified to NG under the "other relevant information" section of the Grid Code dispatch procedure.

6. To be classed as a Relevant Interruption the Deenergisation of the Station Transformer would need to result from an event which would be classed as a Relevant Interruption as listed in CMP235 (above).

5.10 Points 1 to 4 refer to CMP235 and points 5 to 6 refer to CMP236.

5.11 It was noted that these points restrict Relevant Interruption claims to these instances only. The National Grid representative's view was that this would cover the majority of claims. An alternative solution was raised based on the points above.

5.12 It was noted that CMP235/236 is an amalgamated modification with two automatic WACMs to progress CMP235 and CMP236 separately. Therefore any alternative proposed to the Original solution (the CMP235/236 amalgamated modification) would need to be applied separately to CMP235 and CMP236 as well. The Workgroup agreed by majority that the alternative should become a formal Workgroup Alternative CUSC Modification and that it should be an alternative to the Original amalgamated solution (all 6 points above) as well as WACM1 (points 1-4 above) and WACM2 (points 5-6 above). This resulted in the Original solution and five WACMs, summarised as follows;

Original Solution: CMP235/236 Amalgamated modification Proposal

WACM1: CMP235 only

WACM2: CMP236 only

WACM3: Alternative solution to CMP235/236 amalgamated modification (the Original with restrictions as discussed in paragraph 5.7)

WACM4: Alternative solution to CMP235 only (WACM1 with restrictions specific to CMP235 as discussed in paragraph 5.7)

WACM5: Alternative solution to CMP236 only (WACM2 with restrictions specific to CMP236 as discussed in paragraph 5.7)

5.13 No Workgroup members proposed any further WACMs.

6 Impact and Assessment

Impact on the CUSC

6.1 Changes to the following sections;

Section 11 – Definitions

Section 5 – Events of Default, Deenergisation and Disconnection

6.2 The draft legal text for the CMP235/236 Original and five WACMs was agreed by the Workgroup by e-mail after the Workgroup vote.

Impact on Greenhouse Gas Emissions

6.3 None identified.

Impact on Core Industry Documents

6.4 None identified.

Impact on other Industry Documents

6.5 None identified.

7 Proposed Implementation and Transition

7.1 The Workgroup agreed that if implemented, CMP235/CMP236 should be implemented 10 Working Days after an Authority decision.

8 Workgroup Consultation Responses

8.1 Six responses were received to the Workgroup Consultation. These responses and the Workgroup Consultation alternative request are contained within Annex 5 of this report. The following table provides an overview of the responses received;

Respondent	Do you believe that CMP235/236 Original Proposal or either of the potential options for change better facilitate the Applicable CUSC Objectives?	Do you support the proposed implementation approach?	Do you have any other comments?
Drax Power Limited	• Yes. We support the Original Proposal for the same reasons given as the proposer for ACO (a) and (b).	• Yes	• Whilst out of scope, compensation may be recovered directly from National Grid's bottom line rather than TNUoS. This would provide an incentive on National Grid to prevent the need for User's to disconnect.
EDF Energy	• Yes. CMP235 better facilitates (a) and (b) by incentivising operation in line with the Transmission licence and reducing generator risk. CMP236 better facilitates (a) and (b) by removing ambiguity in the CUSC and will reduce uncertainties and risk to generators.	• Yes	• Any disconnection that is beyond the control of the generator and caused by the NETSO should be socialised as this has an ensuing impact on the market and consumers. • The cost of implementing these modifications will be low as these events are rare.
ESB	• Yes. CMP235 better facilitates (a) as it provides an additional reputational incentive on National grid to manage the NETS within the stipulated limits. To some extent would improve (b) as reduces risk. • Don't feel the potential alternative to list out the instances is necessary. • CMP236 will remove ambiguity around treatment of export BMUs. Will better facilitate (a) as it increases incentive on National Grid to maintain security of station loads. Also better facilitate (b) as it reduces	• Yes. Also supportive of the alternate to allow Ofgem to accept the modification separately.	• CMP235 is likely to refer to grid Code and SQSS as these will be key in establishing whether a generator has a case for claiming a Relevant Interruption under the proposal.

	risk. • Also in relation to ACO (b), generators should be able to claim for a Relevant Interruption regardless of their station circuit configuration, otherwise the modification will be discriminatory.		
RWE Group	• Possibly, subject to detail of the legal text	• Undecided	• It would be helpful if National Grid's interpretation of the existing compensation arrangements could be clarified. • We would welcome improved reporting by National Grid of Relevant Interruptions. • We would welcome a further illustrative example of where CMP235 might apply. • There needs to be further clarity and definition of the circumstances under which CMP236 would apply. • We also request clarification of whether it also provides for a partial loss of a generating unit's output capability as a result of the disconnection of a demand BMU.
Scottish Power	• Yes. (a) by clarifying situations in which a generator is entitled to compensation for loss of access and removing the current discretion which the SO appears to have. Also (b) by reducing uncertainty and improving competition.	• Yes	• We believe the Modification is technology neutral and applies consistently to all forms of generation.
SSE Generation Ltd	• We agree with and support the views set out in the Original proposals and therefore believe CMP235 and CMP236 better facilitate ACO (a) and (b). • The Modification is neutral in terms of ACO (c).	• Yes	• We agree and support the decision of the CUSC Panel to amalgamate these two Modifications as it allows for the possibility of legal text interaction(s) to be taken into account. • The proposal will affect us in a positive way.

9 Views

Workgroup view

9.1 The Workgroup believes that the Terms of Reference have been fulfilled and CMP235/CMP236 has been fully considered. On 10th March 2015, the Workgroup voted by majority that WACM4 is the best option and therefore should be implemented

9.2 for reference the applicable CUSC Objectives are;

(a) the efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence.

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

(c) Compliance with the Electricity Regulation Transmission plc Licence under Standard Condition C10, paragraph 1.

Workgroup Vote

9.3 The Workgroup met on 10 March 2015 and voted on the Original proposal and the 5 Workgroup Alternative CUSC Modifications, the votes received were as follows;

Vote 1: whether each proposal better facilitates the Applicable CUSC Objectives

Original solution: CMP235/236 amalgamated modification

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	Yes – places a reputational incentive on National Grid	Yes – makes it clear when you can expect a payment for being disconnected and provides a route for claims.	Neutral	Yes
John Norbury	No	No	Neutral	No
Simon Lord	No	No	Neutral	No
Esther Sutton	Yes	Yes	Neutral	Yes
Damian Clough	Yes – Incentivises National Grid to work to Licence obligations	Yes – Allows a generator to be paid for not having access to the system	Neutral	Yes

WACM1 : CMP235 only

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	Yes	Yes	Neutral	Yes
John Norbury	No	No	Neutral	No
Simon Lord	No	No	Neutral	No
Esther Sutton	Yes	Yes	Neutral	Yes
Damian Clough	Yes	Yes	Neutral	Yes

WACM2: CMP236 only

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	Yes	Yes	Neutral	Yes
John Norbury	No	No	Neutral	No
Simon Lord	No	No	Neutral	No
Esther Sutton	Yes	Yes	Neutral	Yes
Damian Clough	No	No	Neutral	No

WACM3: Alternative to CMP235/236 amalgamated modification

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	Yes	Yes	Neutral	Yes
John Norbury	No	No	Neutral	No
Simon Lord	Yes	Yes	Neutral	Yes
Esther Sutton	Yes	Yes	Neutral	Yes
Damian Clough	Yes	Yes	Neutral	Yes

WACM4: Alternative to CMP235 only

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	Yes	Yes	Neutral	Yes
John Norbury	Yes	Yes	Neutral	Yes
Simon Lord	Yes	Yes	Neutral	Yes
Esther Sutton	Yes	Yes	Neutral	Yes
Damian Clough	Yes	Yes	Neutral	Yes

WACM5: Alternative to CMP236 only

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	Yes	Yes	Neutral	Yes
John Norbury	No	No	Neutral	No
Simon Lord	Yes	No	Neutral	Yes
Esther Sutton	Yes	Yes	Neutral	Yes
Damian Clough	No	No	Neutral	No

Vote 2: where one or more WACMs exist, whether each WACM better facilitates the Applicable CUSC Objectives than the Original Modification Proposal.

WACM1 : CMP235 only

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	No	No	Neutral	No
John Norbury	No	No	Neutral	No
Simon Lord	No	No	Neutral	No
Esther Sutton	No	No	Neutral	No
Damian Clough	Yes	Yes	Neutral	Yes

WACM2: CMP236 only

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	No	No	Neutral	No
John Norbury	No	No	Neutral	No
Simon Lord	No	No	Neutral	No
Esther Sutton	No	No	Neutral	No
Damian Clough	No	No	Neutral	No

WACM3: Alternative to CMP235/236 amalgamated modification

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	No	No	Neutral	No
John Norbury	No	No	Neutral	No
Simon Lord	Yes	Yes	Neutral	Yes
Esther Sutton	Yes	Yes	Neutral	Yes
Damian Clough	Yes	Yes	Neutral	Yes

WACM4: Alternative to CMP235 only

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	No	No	Neutral	No
John Norbury	Yes	Yes	Neutral	Yes
Simon Lord	Yes	Yes	Neutral	Yes
Esther Sutton	Yes	Yes	Neutral	Yes
Damian Clough	Yes	Yes	Neutral	Yes

WACM5: Alternative to CMP236 only

Workgroup member	Objective (a)	Objective (b)	Objective (c)	Overall
John Costa	No	No	Neutral	No
John Norbury	No	No	Neutral	No
Simon Lord	Yes	No	Neutral	Yes
Esther Sutton	Yes	Yes	Neutral	Yes
Damian Clough	No	No	Neutral	No

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.

Workgroup member	BEST option
John Costa	Original
John Norbury	WACM4
Simon Lord	WACM4
Esther Sutton	WACM3
Damian Clough	WACM4

10 How to Respond

10.1 If you wish to respond to this Code Administrator Consultation, please use the response pro-forma which can be found under 'Industry Consultation' via the following link;

http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP235-CMP236/

10.2 Responses are invited to the following questions;

1. **Do you believe CMP235/236 better facilitates the Applicable CUSC Objectives? Please include your reasoning.**

2. **Do you support the proposed implementation approach as set out in Section 7? If not, please state why and provide an alternative suggestion where possible.**

3. **Do you have any other comments?**

10.3 Views are invited on the proposals outlined in this consultation, which should be received by **5pm** on **8th May 2015**. Please email your formal response to:

Cusc.team@nationalgrid.com

10.4 If you wish to submit a confidential response, please note the following;

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

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

Annex 1 – CMP235 CUSC Modification Proposal Form

CUSC Modification Proposal Form CMP235

nationalgrid

Connection and Use of System Code (CUSC)

Title of the CUSC Modification Proposal

Introduction of a new Relevant Interruption type – when a User has had to Emergency Deenergise as a result of the condition or manner of Transmission System operating outside of the Licencee's statutory requirements.

Submission Date

18 September

Description of the Issue or Defect that the CUSC Modification Proposal seeks to address

The CUSC provides the ability for Generators to claim compensation in the event an issue on the National Electricity Transmission System (NETS) caused solely by the TOs plant or apparatus disconnects the generating unit from the NETS.

While this compensation is limited financially, the principle of payment is clear for these types of events, i.e. an event beyond the control of the generator and due to the NETS.

However, the CUSC is silent on situations where the System Operator and / or TO(s) operates the NETS outside of licence conditions, e.g. outside of technical parameters set out in the Grid Code. In these instances it is possible for a generator to self-disconnect from the NETS to avoid being exposed to dangerous system conditions that risk material plant damage or injury to persons. In these circumstances that generator has not been "disconnected" by virtue of receiving an instruction from the System Operator; rather it has disconnected itself as it is receiving a connection that is outside of the design or operational standards set out in the Grid Code and other relevant documents, such as the Bilateral Connection Agreement, SQSS and STC.

Whilst it is likely that these instances are very rare, we consider it a defect that the CUSC does not explicitly cover compensation for transmission services outside these standards. The effect on the Generator is the same as if they had been physically disconnected– they do not have access to a 'fit for purpose' NETS.

The System Operator can issue instructions to generation plant in order prevent damage or injury to persons, equipment or the NETS in return for compensation (paid to the generator) due to the condition or manner of operation of the NETS (under BC2.9). Equally a reasonable and prudent generator should expect to be compensated where it has had to deenergise under clause 5.2.2 as a result of the condition or manner of operation of the NETS going outside acceptable operating parameters.

This modification therefore proposes to further enhance and balance the CUSC by amending

the description of an Interruption to add this type of Emergency Deenergisation by a User (clause 5.2.2) as a Relevant Interruption.

Description of the CUSC Modification Proposal

The CUSC describes the process and criteria necessary for claiming an Interruption Payment as a result of a deenergisation. The CUSC is clear in that an Interruption Payment is due where the Interruption meets the definition of a Relevant Interruption which is basically an Interruption other than an Allowed Interruption.

An Interruption is where "solely as a result of **Deenergisation** of **Plant and Apparatus** forming part of the **National Electricity Transmission System**;…….a **BM Unit** comprised in the **User's Equipment** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised**;

Generators cannot operate their plant without access to the NETS but also without stable and good quality transmission connection in line with the Grid Code parameters or wider Transmission standards. Where the quality of the Transmission connection [see earlier comment] falls outside these parameters this can cause serious damage or injury to persons, User's equipment or the NETS causing either plant damage or a consequential shutdown of the station, either automatically or indirectly through the intervention of safety equipment. However NGET can decide, under the current CUSC text, this is not covered as the definition of an Interruption does not explicitly include these instances.

A new Interruption type is therefore needed to cater for instances where the relevant Licensee has not kept the NETS within the technical parameters under its Statutory requirements which has led to a station interruption either directly or indirectly beyond the powers of a reasonable and prudent operator to prevent damage to persons, plant or the NETS. We therefore propose the following inclusion under the Interruption definition below.

Impact on the CUSC

Definition of "Interruption" would need to be changed to include point (iii) below in bold

where either:-
(i) solely as a result of Deenergisation of Plant and Apparatus forming part of the National Electricity Transmission System; or
(ii) in accordance with an Emergency Deenergisation Instruction; or
(***iii) in accordance with an Emergency Deenergisation by a User (under CUSC 5.2.2) as a result of a problem on the NETS or the Licensee not maintaining quality of transmission supply within Licence Conditions***.

Do you believe the CUSC Modification Proposal will have a material impact on Greenhouse Gas Emissions? Yes / No

No.

Impact on Core Industry Documentation. Please tick the relevant boxes and provide any supporting information

BSC ☐

Grid Code ☐

STC ☐

Other ☐
(please specify)

This is an optional section. You should select any Codes or state Industry Documents which may be affected by this Proposal and, where possible, how they will be affected.

Urgency Recommended: Yes / No

No

Justification for Urgency Recommendation

Self-Governance Recommended: Yes / No

No. This change is likely to have material effects.

-

Justification for Self-Governance Recommendation

Should this CUSC Modification Proposal be considered exempt from any ongoing Significant Code Reviews?

Yes. TransmiT and Electricity Cashout SCRs have concluded but in any case are out of scope.

Impact on Computer Systems and Processes used by CUSC Parties:

None identified at this stage.

Details of any Related Modification to Other Industry Codes

None

Justification for CUSC Modification Proposal with Reference to Applicable CUSC Objectives:

This section is mandatory. You should detail why this Proposal better facilitates the Applicable CUSC Objectives compared to the current baseline. Please note that one or more Objective must be justified.

Please tick the relevant boxes and provide justification:

X (a) the efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence

- National Grid's licence requires it to operate an efficient and reliable NETS within certain technical parameters (under the Grid Code for example) to ensure a continual and safe operation. NG is not currently incentivised to minimise outages that it does not compensate for and the CUSC does not allow compensation for situations where a User has had to self-interrupt to avoid injury or damage to persons or plant because of a lack of access to a fit for purpose NETS. This modification if approved would therefore lead to greater transparency/ reporting of these events. This in turn should place a reputational incentive on National Grid to maintain NETS in line with their Transmission Licence and therefore better meet their objectives. It will also reduce the likelihood of disconnection.
- By allowing Emergency Deenergisation by User to be compensated as if NG had instructed, this will minimise NG's ability to discriminate between different types of emergency situations which leads to the inevitable deenergisation of the generation unit.

X (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.

- There is little difference between NG instructing an EDI or a User Emergency Deenergising – the effect on the generator is the same. It ends up disconnecting as if a forced outage but without any recompense. By compensating for an event that is not currently compensated for you reduce generator's risk. While these events are hopefully very rare, reducing the risk for all generators is likely to increase competition as generators will be more comfortable operating in the market.
- Secondly any reputational incentive created by requiring reporting and transparency of these events is likely to reduce such events happening in the first place. This too will reduce unmanageable risk to generators and hence will further competition.

☐ (c) compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.

These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1.

Objective (c) was added in November 2011. This refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

Additional details

Details of Proposer: (Organisation Name)	EDF Energy
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:	John Costa EDF Energy 020 3126 2324 John.costa@edfenergy.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	Paul Mott EDF Energy 020 3126 2314 Paul.mott@edfenergy.com
Attachments (No):	

Contact Us

If you have any questions or need any advice on how to fill in this form please contact the Panel Secretary:

E-mail cusc.team@nationalgrid.com

Phone: 01926 653606

For examples of recent CUSC Modifications Proposals that have been raised please visit the National Grid Website at http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/Current/

Submitting the Proposal

Once you have completed this form, please return to the Panel Secretary, either by email to jade.clarke@nationalgrid.com and copied to cusc.team@nationalgrid.com, or by post to:

Jade Clarke
CUSC Modifications Panel Secretary, TNS
National Grid Electricity Transmission plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

If no more information is required, we will contact you with a Modification Proposal number and the date the Proposal will be considered by the Panel. If, in the opinion of the Panel Secretary, the form fails to provide the information required in the CUSC, the Proposal can be rejected. You will be informed of the rejection and the Panel will discuss the issue at the next meeting. The Panel can reverse the Panel Secretary's decision and if this happens the Panel Secretary will inform you.

Annex 2 – CMP236 CUSC Modification Proposal Form

CUSC Modification Proposal Form CMP236

nationalgrid

Connection and Use of System Code (CUSC)

Title of the CUSC Modification Proposal

Clarification of when Disconnection Compensation payments can be expected under a Relevant Interruption

Submission Date

18 September

Description of the Issue or Defect that the CUSC Modification Proposal seeks to address

The CUSC provides the ability for generators to claim compensation in the event of an issue on the National Electricity Transmission System (NETS) caused by the TO's plant or apparatus. The CUSC is clear that compensation should be paid where NG solely disconnects BMUs from the NETS system and doesn't differentiate whether these are import or export BMUs. However there have been several instances where NG has decided not to pay out. One of the reasons why claims have been rejected is because of the different interpretations of the CUSC where despite agreeing that the disconnection comprises a Relevant Interruption, National Grid may choose not pay out if it believes the export route was not affected, even though export BMUs were directly deenergised.

It is important that the CUSC is clear to ensure that arrangements are efficient and give confidence to connected parties. In most cases station supplies are connected to the same 400kv or 275kv "feeders" from the NETS as the generating output and therefore the distinction is not important. However, in a few cases they are supplied from different parts of the NETS so it is important that the arrangements are clear. The CUSC text in determining a Relevant Interruption does not currently distinguish whether the BMUs that have been disconnected are import or export BMUs. However we are aware that National Grid has made different decisions on separate occasions as to whether this situation is compensated.

This modification therefore proposes to further enhance the CUSC by clarifying beyond the avoidance of doubt that where stations supplies (import BMUs) are disconnected solely by National Grid plant or apparatus and the effect of this (whether directly or indirectly) is to lose the generating unit(s)' output then, firstly, this is a Relevant Interruption. Secondly that, under the CUSC, Interruption Payments can include situations where station supplies have been lost causing the loss of the generating units. i.e. for the avoidance of doubt such events not only are Relevant Interruptions but also qualify for Interruption Payments.

Description of the CUSC Modification Proposal

The CUSC describes the process and criteria necessary for claiming an Interruption Payment as a result of the deenergisation of BMUs. The CUSC is clear in that an unplanned deenergisation has to meet the definition of a Relevant Interruption which is basically an Interruption other than an Allowed Interruption. Once a Relevant Interruption has been agreed the CUSC moves to calculating the amount of compensation payable and it is at this stage that National Grid can decide that no compensation is due if it believes the export BMUs output were unaffected.

The proposer does not believe National Grid's interpretation is correct as the CUSC does not differentiate between BMUs, it states a Relevant Interruption is …An Interruption is where "solely as a result of **Deenergisation** of **Plant and Apparatus** forming part of the **National Electricity Transmission System**;…….a **BM Unit** comprised in the **User's Equipment** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised**;

and that compensation will be paid to the affected units.

To make this clearer, this modification proposes two amendments:

1) a small change to make clear, and for the avoidance of doubt, that a BMU Unit in this instance can be "either an Export BMU or an Import BMU" as both can be deenergised and lead to an automatic station shut down and be considered a Relevant Interruption. A BMU Unit is not defined in this respect and can therefore be an Export BMU or an Import BMU as in practice and reality both can be directly affected by a failure of the NETS. This is more often than not the case where the generator and its station supplies are connected via the same part of the NETS. However, not all generators have supplies provided from the same part of the NETS and hence the potential discrepancy / lack of clarity.
This amendment reinforces that the loss of station supplies can be determined to be a Relevant Interruption.

2) Following acceptance of this, the CUSC moves to the Interruption Payment. This calculates the amount of "Affected MW" by the interruption by deducting from the Transmission Entry Capacity the sum of the Entry Capacity of the "unaffected BMUs". It is at this point that National Grid can decide whether the Export BMUs were affected.

"unaffected BMUs" is not defined in CUSC and therefore National Grid has discretion as to whether to reject paying compensation. The CUSC should therefore be made clear in the Interruption Payment section that Export BMUs would be considered "affected" where, as a reasonable and prudent operator, a generator has been interrupted as a direct result of the interruption of the station import BMUs by National Grid. National Grid could only reject compensation payment where they could justify what else a reasonable and prudent generator could have done in that situation to avoid being disconnected from the system.

Impact on the CUSC

As stated above the definition of BMUs would have to be included to define station import BMUs and Export BMUs.

Legal text will need to be developed but for illustration purposes the definition of Interruption could be changed as follows in bold:

where either:-
(i) solely as a result of Deenergisation of Plant and Apparatus forming part of the National Electricity Transmission System; or
(ii) in accordance with an Emergency Deenergisation Instruction;
a BM Unit comprised in the User's Equipment of an Affected User (other than an Interconnector Owner) is Deenergised; **for the avoidance of doubt a BM Unit deenergised as a result may be either an import or export BMU…**

Also the definition of Interruption Payment and in particular Affected MW would have to be changed to make it clear that "unaffected BMUs" can not include, for the avoidance of doubt, Export BMUs that were directly or indirectly deenergised following the failure of NG's plant or apparatus. Thus National Grid cannot deduct the sum of the Connection Entry Capacity for those export BMUs interrupted.

Legal text will need to be developed but for illustration purposes the text could be changed as below in bold.

Affected MW = the MW arrived at after deducting from the Transmission Entry Capacity for the Connection Site the sum of the Connection Entry Capacity of the unaffected BM Units at the Connection Site; (**for the avoidance of doubt Export BMUs output that was affected as a result of a generator being deenergised under a Relevant Interruption should be included and cannot be deducted in the calculation of compensation.**

Do you believe the CUSC Modification Proposal will have a material impact on Greenhouse Gas Emissions? Yes / No

No

Impact on Core Industry Documentation. Please tick the relevant boxes and provide any supporting information

BSC ☐

Grid Code ☐

STC ☐

Other ☐
(please specify)

This is an optional section. You should select any Codes or state Industry Documents which may be affected by this Proposal and, where possible, how they will be affected.

Urgency Recommended: Yes / No

No

Justification for Urgency Recommendation

Self-Governance Recommended: Yes / No

No. This change is likely to have material effects

Justification for Self-Governance Recommendation

Should this CUSC Modification Proposal be considered exempt from any ongoing Significant Code Reviews?

Yes. TransmiT and Electricity Cashout SCRs have concluded but in any case of out of scope.

Impact on Computer Systems and Processes used by CUSC Parties:

None identified at this stage.

Details of any Related Modification to Other Industry Codes

None

Justification for CUSC Modification Proposal with Reference to Applicable CUSC Objectives:

This section is mandatory. You should detail why this Proposal better facilitates the Applicable CUSC Objectives compared to the current baseline. Please note that one or more Objective must be justified.

Please tick the relevant boxes and provide justification:

X (a) the efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence

- National Grid has a duty under its licence to develop, maintain and operate economic, reliable and efficient networks and fit for purpose framework agreements. By further clarifying the CUSC it will enable National Grid to better meet their obligations.
- This extra clarity and tightening up of the CUSC will also minimise NG's ability to potentially inadvertently discriminate in its assessment of which types of disconnections should receive compensation.

X (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.

- It is important that the CUSC is clear to ensure that arrangements are efficient and give confidence to connected parties. At this time there is clearly ambiguity in these arrangements. This proposal seeks to reduce this ambiguity and by doing so will reduce uncertainties and unknown risks to generators. In turn this will further promote competition in generation.

☐ (c) compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.

These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1.

Objective (c) was added in November 2011. This refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

Additional details

Details of Proposer: (Organisation Name)	EDF Energy
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:	John Costa EDF Energy 020 3126 2324 John.costa@edfenergy.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	Paul Mott EDF Energy 020 3126 2314 **Paul.mott@edfenergy.com**

Attachments (No):

Contact Us

If you have any questions or need any advice on how to fill in this form please contact the Panel Secretary:

E-mail cusc.team@nationalgrid.com

Phone: 01926 653606

For examples of recent CUSC Modifications Proposals that have been raised please visit the National Grid Website at http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/Current/

Submitting the Proposal

Once you have completed this form, please return to the Panel Secretary, either by email to jade.clarke@nationalgrid.com and copied to cusc.team@nationalgrid.com, or by post to:

Jade Clarke
CUSC Modifications Panel Secretary, TNS
National Grid Electricity Transmission plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

If no more information is required, we will contact you with a Modification Proposal number and the date the Proposal will be considered by the Panel. If, in the opinion of the Panel Secretary, the form fails to provide the information required in the CUSC, the Proposal can be rejected. You will be informed of the rejection and the Panel will discuss the issue at the next meeting. The Panel can reverse the Panel Secretary's decision and if this happens the Panel Secretary will inform you.

Annex 3 – CMP235/CMP236 Terms of Reference

nationalgrid

Workgroup Terms of Reference and Membership

TERMS OF REFERENCE FOR CMP235/236 WORKGROUP

Responsibilities

1. The Workgroup is responsible for assisting the CUSC Modifications Panel in the evaluation of CUSC Modification Proposal CMP235/236 "Introduction of a new Relevant Interruption type: when a User has had to Emergency Deenergise as a result of the condition or manner of Transmission System operating outside of the Licensee's statutory requirements" and "Clarification of when Disconnection Compensation payments can be expected under a Relevant Interruption" tabled by EDF Energy at the Modifications Panel meeting on 26th September 2014.

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;

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

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

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) Interaction of the proposals with the Grid Code, SQSS, Bilateral Agreements and the Transmission Licence (CMP235/236)
   b) Whether there should be a Reasonable and Prudent Operator test applied to the actions of the System Operator and the User who disconnects (CMP235)
   c) The burden of proof on the claimant to provide evidence to support their claim (CMP235/236)

d) Whether there is a different impact on different generation technologies (CMP235)
e) Which specific technical conditions lead to compensation (CMP235)
f) Which circumstances leading to loss of access are insurable for generators and which should be centrally mutualised? (CMP235)
g) Implementation
h) Review illustrative legal text

6. The Workgroup is responsible for the formulation and evaluation of any Workgroup Alternative CUSC Modifications (WACMs) arising from Group discussions which would, as compared with the Modification Proposal or the current version of the CUSC, better facilitate achieving the Applicable CUSC Objectives in relation to the issue or defect identified.

7. The Workgroup should become conversant with the definition of Workgroup Alternative CUSC Modification which appears in Section 11 (Interpretation and Definitions) of the CUSC. The definition entitles the Group and/or an individual member of the Workgroup to put forward a WACM if the member(s) genuinely believes the WACM would better facilitate the achievement of the Applicable CUSC Objectives, as compared with the Modification Proposal or the current version of the CUSC. The extent of the support for the Modification Proposal or any WACM arising from the Workgroup's discussions should be clearly described in the final Workgroup Report to the CUSC Modifications Panel.

8. Workgroup members should be mindful of efficiency and propose the fewest number of WACMs possible.

9. All proposed WACMs should include the Proposer(s)'s details within the final Workgroup report, for the avoidance of doubt this includes WACMs which are proposed by the entire Workgroup or subset of members.

10. There is an obligation on the Workgroup to undertake a period of Consultation in accordance with CUSC 8.20. The Workgroup Consultation period shall be for a period of 15 working days as determined by the Modifications Panel.

11. Following the Consultation period the Workgroup is required to consider all responses including any WG Consultation Alternative Requests. In undertaking an assessment of any WG Consultation Alternative Request, the Workgroup should consider whether it better facilitates the Applicable CUSC Objectives than the current version of the CUSC.

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

12. The Workgroup is to submit its final report to the Modifications Panel Secretary on 22nd January 2014 for circulation to Panel Members. The final report conclusions will be presented to the CUSC Modifications Panel meeting in January 2015.

Membership

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

Role	Name	Representing
Chairman	Alex Thomason	Code Administrator
*National Grid Representative**	Damian Clough	National Grid
*Industry Representatives**	John Costa Garth Graham Hannah McKinney Simon Lord William Chilvers John Norbury Esther Sutton	EDF Energy SSE Dong Energy GDF Suez ESB RWE E.ON
Authority Representatives	Christian Milhan	Ofgem
Technical secretary	Jade Clarke	Code Administrator
Observers		

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

14. The chairman of the Workgroup and the Modifications Panel Chairman must agree a number that will be quorum for each Workgroup meeting. The agreed figure for CMP235/CMP236 is that at least 5 Workgroup members must participate in a meeting for quorum to be met.

15. A vote is to take place by all eligible Workgroup members on the Modification Proposal and each WACM. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference). The Workgroup chairman shall not have a vote, casting or otherwise]. There may be up to three rounds of voting, as follows:

- Vote 1: whether each proposal better facilitates the Applicable CUSC Objectives;
- Vote 2: where one or more WACMs exist, whether each WACM better facilitates the Applicable CUSC Objectives than the original Modification Proposal*;*
- Vote 3: which option is considered to BEST facilitate achievement of the Applicable CUSC Objectives. For the avoidance of doubt, this vote should include the existing CUSC baseline as an option.

The results from the vote and the reasons for such voting shall be recorded in the Workgroup report in as much detail as practicable.

16. It is expected that Workgroup members would only abstain from voting under limited circumstances, for example where a member feels that a proposal has been insufficiently developed. Where a member has such concerns, they should raise these with the Workgroup chairman at the earliest possible opportunity and certainly before the Workgroup vote takes place. Where abstention occurs, the reason should be recorded in the Workgroup report.

17. Workgroup members or their appointed alternate are required to attend a minimum of 50% of the Workgroup meetings to be eligible to participate in the Workgroup vote.

18. The Technical Secretary shall keep an Attendance Record for the Workgroup meetings and circulate the Attendance Record with the Action Notes after each meeting. This will be attached to the final Workgroup report.

19. The Workgroup membership can be amended from time to time by the CUSC Modifications Panel.

Annex 4 – Workgroup attendance register

A – Attended
X – Absent
O – Alternate
D – Dial-in

Name	Organisation	Role	30/10/14	18/11/14	05/02/15	10/03/14
Emma Radley	Code Administrator	Independent Chair	A	A	A	A
Jade Clarke	Code Administrator	Technical Secretary	A	A	A	A
John Costa	EDF Energy	Proposer	A	A	A	A
Damian Clough	National Grid	Workgroup Member	A	A	A	A
Garth Graham	SSE	Workgroup Member	D	D	D	X
Hannah McKinney	Dong Energy	Workgroup Member	X	X	X	X
Simon Lord	GDF Suez	Workgroup Member	A	D	D	D
William Chilvers	ESB	Workgroup Member	A	A	A	X
John Norbury	RWE	Workgroup Member	A	A	A	A
Esther Sutton	E.ON	Workgroup Member	A	A	A	A
Christian Milhan	Ofgem	Authority Representative	A	A	D	D

Annex 5 – Workgroup Consultation responses

CUSC Workgroup Consultation Response Proforma

CMP235 / CMP236 – 'Introduction of a new Relevant Interruption Type' and 'Clarification of when Disconnection Compensation payments can be expected under a Relevant Interruption'.

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **23rd January 2015** to cusc.team@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Jade Clarke at jade.clarke@nationalgrid.com

These responses will be considered by the Workgroup at their next meeting at which members will also consider any Workgroup Consultation Alternative Requests. Where appropriate, the Workgroup will record your response and its consideration of it within the final Workgroup Report which is submitted to the CUSC Modifications Panel.

Respondent:	*Joe Underwood – joseph.underwood@drax.com*
Company Name:	*Drax Power Limited*
Please express your views regarding the Workgroup Consultation, including rationale. **(Please include any issues, suggestions or queries)**	Yes we support the original proposal for the same reasons given as the proposer under Applicable CUSC Objectives (ACO) (a) and (b). Please see answers below for more details.

Standard Workgroup consultation questions

Q	Question	Response

Q	Question	Response
1	**Do you believe that CMP235/236 Original proposal or either of the potential options for change better facilitates the Applicable CUSC Objectives? Please state which ones and why.**	Yes, we support the original proposal for the same reasons given as the proposer ACO (a) and (b). We do not believe there would be merit in developing a list of specific triggers that would cause the SO to operate outside of its licence standards. There would be too many triggers to list – even a reasonably comprehensive list is likely to overlook relevant circumstances.
2	**Do you support the proposed implementation approach?**	Yes.
3	**Do you have any other comments?**	Whilst this is out of the remit of the modification, there may be scope that compensation should be recovered directly from National Grid's bottom line rather than having National grid recuperate their costs through TNUoS (Users). This would provide an incentive on National Grid to prevent the need for User's to disconnect due to an immediate threat of injury or material damage to any person or to User's Equipment or equipment for which the User is responsible through the proper maintenance of NETS equipment. This increases security of supply better supporting ACO (a).
4	**Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?**	No.

Specific questions for CMP235/236

Q	Question	Response
5	**Do you believe there to be interaction of the proposals with any other codes, licences or agreements? If so please state where.**	No.
6	**Do you believe that there is a different impact on different generation technologies? If so please be specific.**	No.

Q	Question	Response
7	**Which circumstances leading to loss of access do you believe to be insurable for generators and which do you believe should be centrally mutualised?**	We believe a loss of access to the NETS due to a User disconnecting due to an immediate threat of injury or material damage to any person or to User's Equipment or equipment for which the User is responsible, should not be insurable by the User. This risk is not best suited to self-insurance, but rather to some form of mutualisation. There are a number of ways in which this risk could be managed, but we believe that the proposal to modify the definition of a Relevant Interruption appears sensible to achieve this.
8	**Do you think that the proposal may lead to any unintended consequences? If so please state how.**	No but if there are any it would surely be of minimal consequence due to the fact that the proposal is of limited scope.
9	**Do you feel that the proposal affects you? If yes, please explain.** *(If possible please provide further evidence on (i) the frequency and likelihood of emergency de-energisation as a result of the condition or manner of the SO operating outside the statutory requirements, and (ii) the impact of these events in quantitative or qualitative terms)*	Yes but not in any material way that would set us apart from other generators.

CMP235 / CMP236 – 'Introduction of a new Relevant Interruption Type' and 'Clarification of when Disconnection Compensation payments can be expected under a Relevant Interruption'.

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **23rd January 2015** to cusc.team@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Jade Clarke at jade.clarke@nationalgrid.com

These responses will be considered by the Workgroup at their next meeting at which members will also consider any Workgroup Consultation Alternative Requests. Where appropriate, the Workgroup will record your response and its consideration of it within the final Workgroup Report which is submitted to the CUSC Modifications Panel.

Respondent:	John Costa
Company Name:	EDF Energy
Please express your views regarding the Workgroup Consultation, including rationale. **(Please include any issues, suggestions or queries)**	For reference, the Applicable CUSC objectives are: (a) The efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence. (b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity. (c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.

Standard Workgroup consultation questions

Q	Question	Response
1	**Do you believe that CMP235/236 Original proposal or either of the potential options for change better facilitates the Applicable CUSC Objectives? Please state which ones and why.**	Yes. We believe, as the proposer, that both CMP235 and CMP236 proposals better facilitate the Applicable CUSC Objectives. National Grid has a licence obligation[1] to operate an efficient (B7) and reliable transmission system (NETS) in order to maintain system security and quality of service (C17) within the operational parameters stipulated in various binding agreements (under the Grid Code and CUSC for example) to ensure a continual and safe operation. Generators are paying to have a robust connection to a reliable NETS that operates within these parameters and the CUSC provides the ability for Generators to claim compensation in the event that an issue on the (NETS) caused solely by the TO's plant or apparatus disconnects a generating unit. However, it doesn't cover situations where a generator is forced to involuntarily disconnect because of the poor quality of system supplies even though the result is the same; the generator is disconnected through no fault of its own. It is important that generators have confidence in connecting to and operating on the NETS and that their risks of interruption will be minimised. It is also important for market participants to have clarity and certainty of when an Interruption Payment can be expected after being interrupted. Improving the current compensation arrangements through these modifications by making the ability to claim more consistent (CMP235) and the Interruption Payment clearer (CMP236) should help NG to meet their licence objectives and incentivise a more efficient NETS that minimises physical disconnections. **CMP235** CMP235 aims to reduce the risk for generators and close out this gap in the arrangements by extending the Relevant Interruption payment for situations where the generator through no fault of their own has to disconnect as a result of Grid supplies which are outside the licensee's statutory duty. While the compensation is limited financially, the principle of payment is clear for these types of events, i.e. an event which is beyond the control of the generator and due to the NETS.

1

https://epr.ofgem.gov.uk//Content/Documents/Electricity%20transmission%20full%20set%20of%20consolidated%20standard%20licence%20conditions%20-%20Current%20Version.pdf

Q	Question	Response
		It is not clear how many of these instances there are each year as National Grid (NG) does not report on them and while they are likely to be very rare, historical analysis of the physical interruptions that are reported appears to show an increasing trend. In the absence of reliable and within standard Transmission supplies a disconnected generator should be allowed to submit a Relevant Interruption claim as the end result is the same – the generator is disconnected. We therefore believe CMP235 better facilitates Applicable CUSC objective a) (the efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence), for the following reasons. We consider that NG does not currently have an incentive to minimise outages that it does not compensate for and the CUSC does not allow compensation for situations where a User has had to self-interrupt to avoid injury or damage to persons or plant because of a lack of access to a fit for purpose NETS. Implementation of this modification will require the System Operator to record and importantly report on these events (under CMP212 Interruptions Claims Reporting) thereby placing a reputational incentive on NG to ensure the NETS is operating in line with their Transmission licence and therefore better meet their objectives. This in turn should not only mitigate some of the Generator's operational and contractual exposure in these events but ensure that the likelihood of such disconnections are minimised going forward potentially through better investment and maintenance of the NETS to avoid faults and rectify them more quickly. Applicable CUSC objective b) competition in the generation and supply of electricity. By compensating for an event that is not currently compensated for and making it a reporting requirement, it is likely that you will reduce generator's risk which is likely to increase competition as generators will be more comfortable operating in the market. **CMP236** CMP236 proposes to enhance the CUSC by clarifying beyond the avoidance of doubt that where stations supplies (import BMUs) are disconnected solely by National Grid plant or apparatus and the effect of this (whether directly or indirectly) is to lose the generating unit(s)' output this is a Relevant

Q	Question	Response
		Interruption that will lead to an Interruption Payment being made. The CUSC is clear that compensation should be paid where NG solely disconnects BMUs from the NETS system and doesn't differentiate whether these are import or export BMUs. However, there have been several instances where NG has decided not to pay out. One of the reasons why claims have been rejected is because of the different interpretations of the CUSC where despite agreeing that the disconnection comprises a Relevant Interruption, National Grid may choose not to pay out if it believes the export route was not affected, even though export BMUs were directly de-energised. This creates ambiguity and uncertainty under the arrangements for generators and National Grid who could inadvertently be discriminating between different users. Furthermore, if there is an ability to not issue Interruption Payments this reduces the reputational incentive on NG to ensure these events do not happen in the first place as the cost, in terms of compensation payments which acts as a proxy, will not be known. Clarification of this is particularly important given that there has been at least one instance where NG has agreed to pay compensation for the interruption of station supplies but rejected others , even though we understand the circumstances were very similar if not the same. We believe CMP236 will better facilitate Applicable CUSC object a) for the following reasons. By further clarifying the CUSC and removing any ambiguity, this will create more efficient and effective framework agreements which will enable National Grid to better meet their obligations to develop codes that maintain an efficient and reliable network. This extra clarity and tightening up of the CUSC will also minimise NG's ability to potentially inadvertently discriminate in its assessment of which types of disconnections should receive compensation. This in turn will minimise the potential for CUSC appeals being raised which is a distraction from the efficient running of market. In terms of meeting Applicable CUSC objective b), removing this ambiguity and clarifying the CUSC in this way this will reduce uncertainties and unknown risks to generators which in turn will better facilitate competition in generation.

Q	Question	Response
2	**Do you support the proposed implementation approach?**	Yes, we agree with the workgroup's view that if implemented CMP235/CMP236 should be implemented 10 Working Days after an Authority decision
3	**Do you have any other comments?**	For clarification, CMP235 is not changing the Interruption Payment, the claim process or the amount of compensation due if a claim is successful. It is simply extending the Relevant Interruption to allow claims for interruptions where the same root problem – an issue on the NETS - forces a generator off through no fault of their own. Neither do these modifications try to define the types of scenarios that could trigger a claim. This is because NGs obligations to maintain an efficient, secure and reliable NETS and where this is not the case and physical disconnections ensue, to pay an Interruption Payment, are clearly laid out in their Licence and CUSC. However, the real-case situation raised in the workgroup where the NETS went to two phases tripping off a generator was a good and clear example of where compensation should be paid, as agreed unanimously by the workgroup. CMP235 if implemented would simply open the route for a Relevant Interruption claim; it is up to generator to make the case and the SO to decide if it is Relevant Interruption which leads to an Interruption Payment. Finally, the cost of implementing these modifications will be low. As the analysis that we presented shows, the amount of compensation paid since interruption payments were introduced from 2004 to 2011 was only £1.6m paid over six successful claims despite there being some 48 disconnections during this same period. This shows that the impact on TNUoS charges will continue to be extremely low under these modifications given the current annual TNUoS bill is approximately £2.5bn each year. These events are rare and implementation of these modifications should support the events remaining rare.
4	**Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?**	No, other than to recognise CMP235/ CMP236 as separate modifications

Specific questions for CMP235/236

Q	Question	Response
5	**Do you believe there to be interaction of the proposals with any other codes, licences or agreements? If so please state where.**	No. These modifications do not introduce anything new into any other agreement other than the CUSC.
6	**Do you believe that there is a different impact on different generation technologies? If so please be specific.**	No, both CMP235 and CMP236 are technology neutral, because, as the workgroup agreed, these proposals are just extending and clarifying the current compensation rules.
7	**Which circumstances leading to loss of access do you believe to be insurable for generators and which do you believe should be centrally mutualised?**	We believe that any disconnection that is beyond the control of the generator and caused by the NETSO should be socialised as this has an ensuing impact on the market and consumers. Doing this would treat all Users alike.
8	**Do you think that the proposal may lead to any unintended consequences? If so please state how.**	No. The workgroup discussed whether CMP235 could create perverse incentives for spurious claims however it was agreed that these were highly unlikely as power station's main aim is to keep generating. We support this view as the level of compensation will always be less than the cost of disconnection. In addition and as further protection generators have licence obligations not to manipulate the market and there is no guarantee of the claim being successful. We do not expect this modification to change Generator behaviour.

Q	Question	Response
9	**Do you feel that the proposal affects you? If yes, please explain.** *(If possible please provide further evidence on (i) the frequency and likelihood of emergency de-energisation as a result of the condition or manner of the SO operating outside the statutory requirements, and (ii) the impact of these events in quantitative or qualitative terms)*	Yes. As owners of generation plant across GB we have experienced several types of disconnections by the SO causing significant costs and operational difficulties. Some of these disconnections we've not been allowed to claim for (hence CMP235) and while for other's we have been allowed to claim the Interruption Payment has been zero, despite National Grid accepting it was a valid Relevant Interruption under the CUSC (hence CMP236). As stated while the likelihood of these interruptions is small they are unexpected and cause operational difficulty and cost to generators. Even if an Interruption claim was allowed and was successful this leads to a lower level of cost than that incurred. For example, if the system is operating outside its obligated operational parameters for 15 minutes leading to a generator tripping, they would only be paid for one settlement period despite it taking several hours for a generator to come back on line. This issue potentially becomes more serious with the growing trend of disconnections and going forward with the operational difficulties NG has highlighted in their System Operability Framework work.

EDF Energy
January 2015

CUSC Workgroup Consultation Response Proforma

CMP235 / CMP236 – 'Introduction of a new Relevant Interruption Type' and 'Clarification of when Disconnection Compensation payments can be expected under a Relevant Interruption'.

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **23rd January 2015** to cusc.team@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Jade Clarke at jade.clarke@nationalgrid.com

These responses will be considered by the Workgroup at their next meeting at which members will also consider any Workgroup Consultation Alternative Requests. Where appropriate, the Workgroup will record your response and its consideration of it within the final Workgroup Report which is submitted to the CUSC Modifications Panel.

Respondent:	*William Chilvers* *William.chilvers@esb.ie*
Company Name:	*ESB*
Please express your views regarding the Workgroup Consultation, including rationale. **(Please include any issues, suggestions or queries)**	For reference, the Applicable CUSC objectives are: (a) The efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence. (b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity. (c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.

1	**Do you believe that CMP235/236 Original proposal or either of the potential options for change better facilitates the Applicable CUSC Objectives? Please state which ones and why.**	<u>CMP235</u> We are supportive of CMP235 as put forward by the proposer. We believe that the modification better facilitates Applicable CUSC Objective (a) as it would provide an additional incentive on National Grid to effectively maintain and manage the NETS within the stipulated limits. As the modification does not seek to amend the way in which Relevant Interruption payments are recovered the additional incentive on the System Operator would be reputational rather than financial. We would therefore support improved reporting of relevant claims to ensure there is a sufficient reputational incentive on the SO to fulfil their obligations. We do not believe that the modification would introduce the unintended consequence of generators disconnecting when not absolutely necessary as any interruption payments received are highly unlikely to cover all losses faced through disconnection, thus there is unlikely to be any additional burden on the SO in the management of the system if the modification were to be implemented. We are also of the view that the proposed modification would to some extent improve Applicable CUSC Objective (b) as, if a generator is unable to claim financial losses for an event outwith their control through the Relevant Interruption claims process these losses would have to be recovered through the wholesale market, putting the generator at a competitive disadvantage. We do not feel that the alternative proposal to list out the potential Relevant Interruptions is necessary as the modification is designed only to allow for a claim to be made and does not deal with the claims process itself. Such a list could be viewed as providing guidance to the claims process, which is outside the scope of the modification. <u>CMP236</u> We are supportive of CMP236 as put forward by the proposer as it will remove ambiguity around the treatment of export BMUs in the event of interruption to station supplies. Allowing Disconnection Compensation payments to be claimed under a Relevant Interruption will increase the incentive on National Grid to maintain the security of station loads and thus better facilitate CUSC Objective (a). Similar to our response to CMP235 above, we also believe that the proposal will better facilitate CUSC Objective (b) as generators will not need to recover the same level of losses through the wholesale market, thus improving competition.

		Also in relation to Applicable CUSC objective (b) we are of the view that generators should be able to claim for a Relevant Interruption regardless of their station circuit configuration, otherwise the modification would discriminate against certain generators, with potentially adverse effects on competition. Any questions around whether a generator could have continued generating following loss of station supplies should be dealt with through the claims process rather than precluding them from making a claim in the first place.
2	**Do you support the proposed implementation approach?**	We are supportive of the proposal to allow Ofgem to accept the modifications either together or separately as this provides Ofgem with the greatest flexibility in their decision making process
3	**Do you have any other comments?**	Not at this time
4	**Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?**	Not at this time

Specific questions for CMP235/236

Q	Question	Response
5	**Do you believe there to be interaction of the proposals with any other codes, licences or agreements? If so please state where.**	CMP235 is likely to refer to Grid Code and SQSS as these will be key in establishing whether a generator has a case for claiming a Relevant Interruption under the proposal.
6	**Do you believe that there is a different impact on different generation technologies? If so please be specific.**	No comment

Q	Question	Response
7	**Which circumstances leading to loss of access do you believe to be insurable for generators and which do you believe should be centrally mutualised?**	No comment
8	**Do you think that the proposal may lead to any unintended consequences? If so please state how.**	No comment
9	**Do you feel that the proposal affects you? If yes, please explain.** *(If possible please provide further evidence on (i) the frequency and likelihood of emergency de-energisation as a result of the condition or manner of the SO operating outside the statutory requirements, and (ii) the impact of these events in quantitative or qualitative terms)*	As a thermal generator connected to the NETS the proposals are likely to have an effect on our ability to claim for a Relevant Interruption. However, at this time we are unable to provide any data on the likely frequency or impact of such events

CUSC Workgroup Consultation Response Proforma

CMP235 / CMP236 – 'Introduction of a new Relevant Interruption Type' and 'Clarification of when Disconnection Compensation payments can be expected under a Relevant Interruption'.

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Please send your responses by **23rd January 2015** to cusc.team@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Jade Clarke at jade.clarke@nationalgrid.com

These responses will be considered by the Workgroup at their next meeting at which members will also consider any Workgroup Consultation Alternative Requests. Where appropriate, the Workgroup will record your response and its consideration of it within the final Workgroup Report which is submitted to the CUSC Modifications Panel.

Respondent:	John Norbury Network Connections Manager RWE Supply & Trading GmbH Windmill Hill Business Park Whitehill Way Swindon SN5 6PB T +44 (0)1793 89 2667 M +44 (0)7795 354 382 john.norbury@rwe.com
Company Name:	RWE Group of GB companies, including RWE Generation UK plc, RWE Innogy UK Limited and RWE Supply & Trading GmbH
Please express your views regarding the Workgroup Consultation, including rationale. **(Please include any issues, suggestions or queries)**	*For reference, the Applicable CUSC objectives are:* *(a) The efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence.* *(b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity.* (c) *Compliance with the Electricity Regulation and any relevant legally binding decision of the European*

	Commission and/or the Agency.

Standard Workgroup consultation questions

Q	Question	Response
1	**Do you believe that CMP235/236 Original proposal or either of the potential options for change better facilitates the Applicable CUSC Objectives? Please state which ones and why.**	Possibly, subject to detail of the legal text.
2	**Do you support the proposed implementation approach?**	Undecided at this stage.

Q	Question	Response
3	**Do you have any other comments?**	In order to fully assess the proposal, it would be helpful if National Grid's interpretation of the existing compensation arrangements could be clarified. In particular, please confirm whether the following conditions would currently qualify as a Relevant Interruption: (i) A BM Unit that is prevented from being synchronised (or energised) to the transmission system (as opposed to being de-energised from it) as a result of de-energisation of the transmission system. (ii) A BM Unit that is prevented from being synchronised (or energised) to the transmission system due to a failure to re-energise the transmission system following a planned outage of the transmission system. (iii) The failure of control and/or protection systems forming part of the transmission system that results in a BM Unit being de-energised or prevented from being synchronised (or energised) to the transmission system. <u>Other comments:</u> <u>CMP235</u> As noted under paragraph 4.20, we would welcome improved reporting by National Grid of Relevant Interruptions. We would also welcome improved reporting by National Grid of Allowed Interruptions. Given the relatively wide range of technical parameters allowed under the Grid Code, we would welcome a further illustrative example of where CMP235 might apply. We consider that the example provided under paragraph 4.17, namely the loss of a single phase, would meet the existing definition of Relevant Interruption irrespective of the CPM235 amendment. Please confirm if this is not the case. <u>CMP236</u> We believe that there needs to be clarity and definition of the circumstances under which CMP236 would apply. For example, this could be achieved in part if the relevant Generator is required to formally pre-notify and agree via the bilateral agreement the conditions under which the output of a specified Generating Unit would be dependent on the availability of a specified demand BMU, by virtue of the power station design. We also request that the proposal clarifies whether it also provides for a partial loss of a generating unit's output capability (whilst remaining synchronised to the transmission system) as a result of the disconnection of a demand BMU.

Q	Question	Response
4	**Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?**	No *If yes, please complete a WG Consultation Alternative Request form, available on National Grid's website[1], and return to the CUSC inbox at cusc.team@nationalgrid.com*

Specific questions for CMP235/236

Q	Question	Response
5	**Do you believe there to be interaction of the proposals with any other codes, licences or agreements? If so please state where.**	No
6	**Do you believe that there is a different impact on different generation technologies? If so please be specific.**	Yes. Different technologies are typified by size of generating unit and will generally have a different number of MWh's of interruption exposed to a single interruption event on the transmission system.
7	**Which circumstances leading to loss of access do you believe to be insurable for generators and which do you believe should be centrally mutualised?**	The question is unclear. A Generator may choose to insure an event externally if it is has limited recourse to other forms of compensation and, generally, any event would be insurable for a given premium. Assuming the reference to "centrally mutualised" refers to other transmission users, it may be appropriate for compensation to be paid where a loss arises that is not due actions such as to a breakdown or other failure, a lack of foresight, non-standard operating arrangements, or unreasonable risk taking etc. by the party suffering the loss.
8	**Do you think that the proposal may lead to any unintended consequences? If so please state how.**	Yes. Depending on how the proposal if approved is utilised, significant increases in transmission charges may arise.

[1] http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/forms_guidance/

Q	Question	Response
9	**Do you feel that the proposal affects you? If yes, please explain.** *(If possible please provide further evidence on (i) the frequency and likelihood of emergency de-energisation as a result of the condition or manner of the SO operating outside the statutory requirements, and (ii) the impact of these events in quantitative or qualitative terms)*	Other than being exposed to a potential increase in transmission charges, it is not expected that the proposals would affect us.

CUSC Workgroup Consultation Response Proforma

CMP235 / CMP236 – 'Introduction of a new Relevant Interruption Type' and 'Clarification of when Disconnection Compensation payments can be expected under a Relevant Interruption'.

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Any queries on the content of the consultation should be addressed to Jade Clarke at jade.clarke@nationalgrid.com

These responses will be considered by the Workgroup at their next meeting at which members will also consider any Workgroup Consultation Alternative Requests. Where appropriate, the Workgroup will record your response and its consideration of it within the final Workgroup Report which is submitted to the CUSC Modifications Panel.

Respondent:	James Anderson james.anderson@scottishpower.com
Company Name:	ScottishPower
Please express your views regarding the Workgroup Consultation, including rationale. **(Please include any issues, suggestions or queries)**	For reference, the Applicable CUSC objectives are: (a) The efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence. (b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity. (c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.

Standard Workgroup consultation questions

Q	Question	Response
1	**Do you believe that CMP235/236 Original proposal or either of the potential options for change better facilitates the Applicable CUSC Objectives? Please state which ones and why.**	We believe that CMP235/236 will better facilitate Applicable CUSC objective (a) by clarifying the situations in which a generator is entitled to compensation for loss of transmission access and removing the current discretion which the System Operator appears to have on when to make Interruption Payments. The Proposal will also further objective (b). By ensuring that Interruption Payment arrangements are applied consistently to types of events which have similar impacts upon generators, it will reduce uncertainty and improve competition.
2	**Do you support the proposed implementation approach?**	We support the proposed implementation approach.
3	**Do you have any other comments?**	No
4	**Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?**	No

Specific questions for CMP235/236

Q	Question	Response
5	**Do you believe there to be interaction of the proposals with any other codes, licences or agreements? If so please state where.**	We do not believe that there is an impact on any other codes, licences or agreements.
6	**Do you believe that there is a different impact on different generation technologies? If so please be specific.**	We believe that the Modification is technology neutral and applies consistently to all forms of generation.

Q	Question	Response
7	**Which circumstances leading to loss of access do you believe to be insurable for generators and which do you believe should be centrally mutualised?**	We agree with the Workgroup's conclusion that loss of transmission access would not be an insurable incident for generators.
8	**Do you think that the proposal may lead to any unintended consequences? If so please state how.**	We do not believe that the proposal could lead to any unintended consequences. Interruption Payments do not fully compensate a generator for the commercial impact of a loss of transmission access and events of sudden disconnection can be very traumatic for generation plant. Therefore we foresee no circumstance in which it would be advantageous to a generator to disconnect from the transmission system in this manner.
9	**Do you feel that the proposal affects you? If yes, please explain.** *(If possible please provide further evidence on (i) the frequency and likelihood of emergency de-energisation as a result of the condition or manner of the SO operating outside the statutory requirements, and (ii) the impact of these events in quantitative or qualitative terms)*	We are currently considering whether this proposal would affect any of our plant but are initially of the opinion that it will not have any significant impact.

CUSC Workgroup Consultation Response Proforma

CMP235 / CMP236 – 'Introduction of a new Relevant Interruption Type' and 'Clarification of when Disconnection Compensation payments can be expected under a Relevant Interruption'.

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **23rd January 2015** to cusc.team@nationalgrid.com. Please note that any responses received after the deadline or sent to a different email address may not receive due consideration by the Workgroup.

Any queries on the content of the consultation should be addressed to Jade Clarke at jade.clarke@nationalgrid.com

These responses will be considered by the Workgroup at their next meeting at which members will also consider any Workgroup Consultation Alternative Requests. Where appropriate, the Workgroup will record your response and its consideration of it within the final Workgroup Report which is submitted to the CUSC Modifications Panel.

Respondent:	*Garth Graham (garth.graham@sse.com)*
Company Name:	*SSE Generation Ltd.*
Please express your views regarding the Workgroup Consultation, including rationale. **(Please include any issues, suggestions or queries)**	For reference, the Applicable CUSC objectives are: (a) The efficient discharge by The Company of the obligations imposed upon it by the Act and the Transmission Licence. (b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity. (c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.

Standard Workgroup consultation questions

Q	Question	Response
1	**Do you believe that CMP235/236 Original proposal or either of the potential options for change better facilitates the Applicable CUSC Objectives? Please state which ones and why.**	We note the views set out in the Proposal and the Consultation Document. In particular the background summary of the situation noted in paragraph 2.4 is, in our view, an important matter to take account of, namely:- "….the Proposer considers it a defect that the CUSC does not explicitly cover compensation for transmission services outside these standards as the effect on the Generator is the same as if they had been physically disconnected." It would, in our view, seem reasonable to any lay person that if a party is operating outside of the agreed standard(s) and this results in an adverse effect (such as disconnection in this case) that the affected party should be entitled to some form of compensation for that disconnection; especially when one considers that after 24 hours that compensation amounts to, in practical effect, not paying for something (transmission access) that you are not receiving. We note the views against Applicable Objectives (a) and (b) set out in the CMP235 and CMP236 proposals (as shown in Appendix 1 and Appendix 2 respectively of the consultation document). For the sake of brevity we avoid repeating them here. Suffice to say we agree with and support those views and therefore we believe that CMP235 and CMP236, both separately and amalgamated, better facilitate Applicable CUSC Objectives (a) and (b). With respect to Applicable CUSC Objective (c) we believe that both CMP235 and CMP236 are neutral in terms of better facilitating this.
2	**Do you support the proposed implementation approach?**	We note the proposed implementation approach set out in Section 7 of the consultation document. We support this proposed implementation approach.
3	**Do you have any other comments?**	We have no additional comments to those made elsewhere in this consultation response except to say that we support and agree with the decision of the CUSC Panel to amalgamate these two Modifications as it allows for the possibility of legal text interaction(s) to be taken into account.

Q	Question	Response
4	**Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?**	No.

Specific questions for CMP235/236

Q	Question	Response
5	**Do you believe there to be interaction of the proposals with any other codes, licences or agreements? If so please state where.**	We are not aware of any material interactions between this proposal and other codes, licences or (public) agreements. Clearly we are not necessarily privy to non published agreements so cannot comment in that regard.
6	**Do you believe that there is a different impact on different generation technologies? If so please be specific.**	We are not aware ourselves of information of a specific nature that would enable us to answer this question in detail. That having been said it appears from the discussions at the Workgroup as well as the nature of the proposals that this maybe an issue for certain types of generation in terms of when they were, historically, connected to the transmission system and / or their technology type.

Q	Question	Response
7	**Which circumstances leading to loss of access do you believe to be insurable for generators and which do you believe should be centrally mutualised?**	We cannot be certain about the details by which certain loss of transmission access events may or may not be insurable by generators. However, it is our general understanding of the norms of business (i.e. not just pertaining to the electricity sector) that you are unlikely to be able to insure against a risk of a party, for example, operating outside the standards or laws etc., pertaining to the way they should operate. In these types of situation even if you could obtain insurance it is highly likely to be on the basis that the insurance company can seek, in turn, recompense from the 'offending' party. Clearly in the case of transmission access in GB this is, in accordance with the CUSC, limited. Given this, and mindful that the compensation for a 'Relevant Interruption' is, according to the CUSC, to come from other Users (and not, for example, the SO shareholders) then we see little alternative but central mutualisation. We further observe that after 24 hours of disconnection the compensation is limited to, in practical effect, not paying for something (transmission access) that you do not have, until access to the system is returned to the affected power station.
8	**Do you think that the proposal may lead to any unintended consequences? If so please state how.**	We are not at this stage aware of any unintended consequences that may arise from the implementation (if approved) of this proposal. However, we reserve judgement on this pending views being provided (via this consultation) by those with perhaps more experience in this area than ourselves.

Q	Question	Response
9	**Do you feel that the proposal affects you? If yes, please explain.** *(If possible please provide further evidence on (i) the frequency and likelihood of emergency de-energisation as a result of the condition or manner of the SO operating outside the statutory requirements, and (ii) the impact of these events in quantitative or qualitative terms)*	We believe that if the proposal does affect us it will be in a positive way. We of course cannot be certain if a TO or the SO is or is not operating the NETS in accordance with the relevant standards. Neither can we be certain if our station supplies maybe disconnected at some point in the future. However, if either type of event was to occur and one of our power stations' disconnected then this proposal would have a positive affect on us compared to the Baseline. Furthermore, by classifying such incidents as a 'Relevant Interruption' then there will be market and wider stakeholder visibility of this via the CMP212 based reporting arrangements which, in our view, will be a positive development as we always find openness and transparency in this (and other areas) to be of benefits (rather than a hindrance).

Annex 6 – Draft legal text

CMP 235/236 Original

Amend the following definitions at CUSC Section 11

"**Affected User**"

a **User**:

a) with **Transmission Entry Capacity** for the **Connection Site** against which the affected **Export BM Unit** or **Associated Affected Export BM Unit** is registered and who is paying or in receipt of generator **Transmission Network Use of System Charges** by reference to such **Transmission Entry Capacity**; or

b) an **Interconnector Owner**;

"**Interruption**"

where either:-

(i) solely as a result of **Deenergisation** of **Plant and Apparatus** forming part of the **National Electricity Transmission System**;

(ii) in accordance with an **Emergency Deenergisation Instruction** or

a) (iii) solely as a result of a **User Emergency Deenergisation**; An **Export BM Unit** comprised in the **User's Equipment** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised**; or

b) an **Associated Affected Export BMU** of an **Affected User** (other than an **Interconnector Owner**) **is Deenergised**; or

c~~b~~) an **Interconnector** of an **Affected User** who is an **Interconnector Owner** is **Deenergised**.; or

d~~c~~) The **Maximum Export Limit** in respect of the **BM Unit(s)** associated with such **User's Equipment** is zero.

"**Interruption Payment**"

the payment for a **Relevant Interruption** calculated as follows:

1) In the case of a **Relevant Interruption** arising as a result of a **Planned Outage;**

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{i=k}^{i=n} \text{Maximum}(\textbf{Average daily £ per MW rate}_i, \textbf{Actual daily £ per MW rate}_i) * \textbf{Affected MW}_i$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{i=k}^{i=n} \textbf{Average daily £ per MW rate}_i * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where:

i = calendar days

k = 1, representing the first calendar day associated with a **Relevant Interruption.**

n = number of complete or part complete calendar days of a **Relevant Interruption**

2) In the case of a **Relevant Interruption** arising as a result of either an **Emergency Deenergisation Instruction** or a **User Emergency Deenergisation**:

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the time when the **Emergency Deenergisation Instruction** was issued by **The Company,** or commencement of the **User Emergency Deenergisation** (as applicable), with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the **Interruption Period**), in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement Periods** for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a Relevant Interruption a sum calculated as 1 above save that k shall be equal to 2.

3) In the case of all other Relevant Interruptions:

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the start of the **Relevant Interruption,** with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the **Interruption Period**)**,** in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement Periods** for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a **Relevant Interruption** a sum calculated in accordance with paragraph 1 above save that k shall be equal to 2.

Provided always that an **Affected User** shall not receive payment in respect of more than one **Relevant Interruption** for the same period**.**

4. In the event of the relevant **Market Price** being zero then for purpose of paragraphs 2 or 3 above the **Market Price** shall be deemed to be the most recent preceding positive price.

Throughout this definition of **Interruption Payment**:

Average daily £ per MW rate = (TNUoS income derived from generators/ total system **Transmission Entry Capacity**) **/** 365, calculated by reference in each case to figures for the **Financial Year** prior to that in which the **Relevant Interruption** occurs to give a daily £ per MW rate;

Actual daily £ per MW rate = (Annual TNUoS charge of an **Affected User** for the **Financial Year** /**Transmission Entry Capacity** for the **Connection Site**) / 365 calculated by reference to the tariff in the **Statement of Use of System Charges** for the **Financial Year** in which the **Relevant Interruption** occurs;

Affected MW = in the case of either **Export BM Units** or **Associated Affected Export BMUs** the MW arrived at after

deducting from the **Transmission Entry Capacity** for the **Connection Site** the sum of the **Connection Entry Capacity** of the unaffected **Export BM Units** at the **Connection Site;**

System Buy Price is as defined in the **Balancing and Settlement Code;**

Market Price is as defined in the **Balancing and Settlement Code.**

"**Interruption Period**"

For a **Planned Outage**, shall mean the period in whole calendar days commencing with the notification of the **Affected User** by **The Company** of the start of **Relevant Interruption** and ending on the notification of the **Affected User** by **The Company** that the **Relevant Interruption** has ended;

For **Relevant Interruptions** arising as a result of:

i) an **Emergency Deenergisation Instruction**, shall mean the period from the start of the **Settlement Period** in which **The Company** gave notification to the **Affected User** of the start of such **Relevant Interruption**; or

ii) a **User Emergency Deenergisation**, shall mean the period from the start of the **Settlement Period** in which the **User Emergency Deenergisation** commenced,

until the end of the **Settlement Period** in respect of which:

i) **The Company** gave notification to the **Affected User** by **The Company** that the **Relevant Interruption** has ended; and

ii) in respect of a **User Emergency Deenergisation** only, the condition or manner of operation of the **National Electricity Transmission System** is back within **The Company's Transmission Licence** obligations,

which shall be measured in:

i) whole **Settlement Periods** for the first 24 hours from the time of either notification by **The Company** to the **Affected User** of the start of such **Relevant Interruption** or when the **User Emergency Deenergisation** commenced (as applicable); and

ii) whole calendar days for any time after the first 24 hour period referred to in i) above.

	In the case of all other **Relevant Interruptions** the duration, shall mean the period from the start of such **Relevant Interruption** which shall be measured in: i) whole **Settlement Periods** for the first 24 hours from the start of such **Relevant Interruption**; and ii) whole calendar days for any time after the first 24 hour period referred to in i) above.

Amends to existing definitions with Section 11 of CUSC

"**Associated Affected Export BMU**"	an **Export BM Unit** where: i) that **Export BM Unit** and an **Import BM Unit** are comprised in the **User's Equipment;** and ii) the **Import BM Unit** is **Deenergised** and as a direct consequence of the **Deenergisation** of the **Import BM Unit** the **Export BM Unit** is also **Deenergised**;
"**Export BM Unit**"	a **BM Unit** registered in accordance with Section K of the **BSC** in respect of **Export**;
"**Import BM Unit**"	a **BM Unit** registered in accordance with Section K of the **BSC** in respect of **Import**;
"User Emergency Deenergisation"	the **Deenergisation** of the **User's Equipment** or equipment for which that **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) by a User pursuant to **CUSC** Paragraph 5.2.2 or by automatic means as a consequence of the condition or manner of operation of the **National Electricity Transmission System** being outside of **The Company's Transmission Licence** obligations;

CMP 235
WACM1

Amend the following definitions at CUSC Section 11

"**Interruption**" where either:-

(i) solely as a result of **Deenergisation** of **Plant and Apparatus** forming part of the **National Electricity Transmission System**; or

(ii) in accordance with an **Emergency Deenergisation Instruction**; or

(iii) solely as a result of a **User Emergency Deenergisation**;

a) A **BM Unit** comprised in the **User's Equipment** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised**; or

b) an **Interconnector** of an **Affected User** who is an **Interconnector Owner** is **Deenergised**.; or

c) The **Maximum Export Limit** in respect of the **BM Unit(s)** associated with such **User's Equipment** is zero.

"**Interruption Payment**" the payment for a **Relevant Interruption** calculated as follows:

1) In the case of a **Relevant Interruption** arising as a result of a **Planned Outage;**

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{i=k}^{i=n} \text{Maximum}(\textbf{Average daily £ per MW rate}_i, \textbf{Actual daily £ per MW rate}_i) * \textbf{Affected MW}_i$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{i=k}^{i=n} \textbf{Average daily £ per MW rate}_i * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where:

i = calendar days

k = 1, representing the first calendar day associated with a **Relevant Interruption.**

n = number of complete or part complete calendar days of a **Relevant Interruption**

2) In the case of a **Relevant Interruption** arising as a result of either an **Emergency Deenergisation Instruction** or a **User Emergency Deenergisation**:

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the time when the **Emergency Deenergisation Instruction** was issued by **The Company** or commencement of the **User Emergency Deenergisation** (as applicable), with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the **Interruption Period**), in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement**

Periods for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a Relevant Interruption a sum calculated as 1 above save that k shall be equal to 2.

3) In the case of all other Relevant Interruptions:

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the start of the **Relevant Interruption,** with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the

Interruption Period), in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement Periods** for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a **Relevant Interruption** a sum calculated in accordance with paragraph 1 above save that k shall be equal to 2.

Provided always that an **Affected User** shall not receive payment in respect of more than one **Relevant Interruption** for the same period**.**

4. In the event of the relevant **Market Price** being zero then for purpose of paragraphs 2 or 3 above the **Market Price** shall be deemed to be the most recent preceding positive price.

Throughout this definition of **Interruption Payment**:

Average daily £ per MW rate = (TNUoS income derived from generators/ total system **Transmission Entry Capacity**) **/** 365, calculated by reference in each case to figures for the **Financial Year** prior to that in which the **Relevant Interruption** occurs to give a daily £ per MW rate;

Actual daily £ per MW rate = (Annual TNUoS charge of an **Affected User** for the **Financial Year** /**Transmission Entry Capacity** for the **Connection Site**) / 365 calculated by reference to the tariff in the **Statement of Use of System Charges** for the **Financial Year** in which the **Relevant Interruption** occurs;

Affected MW = the MW arrived at after deducting from the **Transmission Entry Capacity** for the **Connection Site** the sum of the **Connection Entry Capacity** of the unaffected **BM Units** at the **Connection Site;**

System Buy Price is as defined in the **Balancing and Settlement Code;**

Market Price is as defined in the **Balancing and Settlement Code.**

"**Interruption Period**" For a **Planned Outage**, shall mean the period in whole calendar days commencing with the notification of the **Affected User** by **The Company** of the start of **Relevant Interruption** and ending on the notification of the **Affected User** by **The Company** that the **Relevant Interruption** has ended;

For **Relevant Interruptions** arising as a result of:

i) an **Emergency Deenergisation Instruction**, shall mean the period from the start of the **Settlement Period** in which **The Company** gave notification to the **Affected User** of the start of such **Relevant Interruption**; or

ii) a **User Emergency Deenergisation**, shall mean the period from the start of the **Settlement Period** in which the **User Emergency Deenergisation** commenced,

until the end of the **Settlement Period** in respect of which:

i) **The Company** gave notification to the **Affected User** by **The Company** that the **Relevant Interruption** has ended; and

ii) in respect of a **User Emergency Deenergisation** only, the condition or manner of operation of the **National Electricity Transmission System** is back within **The Company's Transmission Licence** obligations,

which shall be measured in:

i) whole **Settlement Periods** for the first 24 hours from the time of either notification by **The Company** to the **Affected User** of the start of such **Relevant Interruption** or when the **User Emergency Deenergisation** commenced (as applicable); and

ii) whole calendar days for any time after the first 24 hour period referred to in i) above.

In the case of all other **Relevant Interruptions** the duration, shall mean the period from the start of such **Relevant Interruption** which shall be measured in:

i) whole **Settlement Periods** for the first 24 hours from the start of such **Relevant Interruption**; and

ii) whole calendar days for any time after the first 24 hour period referred to in i) above.

Add the following new Definition at CUSC Section 11

"User Emergency Deenergisation"	the **Deenergisation** of the **User's Equipment** or equipment for which that **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) by a **User** pursuant to **CUSC** Paragraph 5.2.2 or by automatic means as a consequence of the condition or manner of operation of the National Electricity

Transmission System being outside of The Company's Transmission Licence obligations;

CMP236
WACM2

Amend the following definitions at CUSC Section 11

"**Affected User**"	a **User**: a) with **Transmission Entry Capacity** for the **Connection Site** against which the affected **Export BM Unit** or **Associated Affected Export BM Unit** is registered and who is paying or in receipt of generator **Transmission Network Use of System Charges** by reference to such **Transmission Entry Capacity**; or b) an **Interconnector Owner**;
"**Interruption**"	where either:- (i) solely as a result of **Deenergisation** of **Plant and Apparatus** forming part of the **National Electricity Transmission System**; or (ii) in accordance with an **Emergency Deenergisation Instruction**; a) An **Export BM Unit** comprised in the **User's Equipment** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised**; or b) an **Associated Affected Export BMU** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised**; or cb) an **Interconnector** of an **Affected User** who is an **Interconnector Owner** is **Deenergised**.; or dc) The **Maximum Export Limit** in respect of the **BM Unit(s)** associated with such **User's Equipment** is zero.
"**Interruption Payment**"	the payment for a **Relevant Interruption** calculated as follows: 1) In the case of a **Relevant Interruption** arising as a result of a **Planned Outage;** In the case of an **Affected User** other than an **Interconnector Owner** $\sum_{i=k}^{i=n} \text{Maximum}(\textbf{Average daily £ per MW rate}_i, \textbf{Actual daily £ per MW rate}_i) * \textbf{Affected MW}_i$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{i=k}^{i=n} \textbf{Average daily £ per MW rate}_i * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where:

i = calendar days

k = 1, representing the first calendar day associated with a **Relevant Interruption.**

n = number of complete or part complete calendar days of a **Relevant Interruption**

2) In the case of a **Relevant Interruption** arising as a result of an **Emergency Deenergisation**

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the time when the **Emergency Deenergisation Instruction** was issued by **The Company,** with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the **Interruption Period**), in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement Periods** for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a Relevant Interruption a sum calculated as 1 above save that k shall be equal to 2.

3) In the case of all other Relevant Interruptions:

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the start of the **Relevant Interruption,** with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the **Interruption Period**)**,** in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement Periods** for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a **Relevant Interruption** a sum calculated in accordance with paragraph 1 above save that k shall be equal to 2.

Provided always that an **Affected User** shall not receive payment in respect of more than one **Relevant Interruption** for the same period**.**

4. In the event of the relevant **Market Price** being zero then for purpose of paragraphs 2 or 3 above the **Market Price** shall be deemed to be the most recent preceding positive price.

Throughout this definition of **Interruption Payment**:

Average daily £ per MW rate = (TNUoS income derived from generators/ total system **Transmission Entry Capacity**) **/** 365, calculated by reference in each case to figures for the **Financial Year** prior to that in which the **Relevant Interruption** occurs to give a daily £ per MW rate;

Actual daily £ per MW rate = (Annual TNUoS charge of an **Affected User** for the **Financial Year** /**Transmission Entry Capacity** for the **Connection Site**) / 365 calculated by reference to the tariff in the **Statement of Use of System Charges** for the **Financial Year** in which the **Relevant Interruption** occurs;

Affected MW = in the case of either **Export BM Units** or **Associated Affected Export BMUs**, the MW arrived at after deducting from the **Transmission Entry Capacity** for the **Connection Site** the sum of the **Connection Entry Capacity** of

	the unaffected **Export BM Units** or **Associated Affected Export BMUs** at the **Connection Site;** **System Buy Price** is as defined in the **Balancing and Settlement Code;** **Market Price** is as defined in the **Balancing and Settlement Code.**

Amends to existing definitions with Section 11 of CUSC

"**Associated Affected Export BMU**"	an **Export BM Unit** where: i) that **Export BM Unit** and an **Import BM Unit** are comprised in the **User's Equipment;** and ii) the **Import BM Unit** is **Deenergised** and as a direct consequence of the **Deenergisation** of the **Import BM Unit** the **Export BM Unit** is also **Deenergised**;
"**Export BM Unit**"	a **BM Unit** registered in accordance with Section K of the **BSC** in respect of **Export**;
"**Import BM Unit**"	a **BM Unit** registered in accordance with Section K of the **BSC** in respect of **Import**;

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"**Affected User**"	a **User**: a) with **Transmission Entry Capacity** for the **Connection Site** against which the affected **Export BM Unit** or **Associated Export BM Unit** is registered and who is paying or in receipt of generator **Transmission Network Use of System Charges** by reference to such **Transmission Entry Capacity**; or b) an **Interconnector Owner**;
"**Interruption**"	where either:- (i) solely as a result of **Deenergisation** of **Plant and Apparatus** forming part of the **National Electricity Transmission System**; or (ii) in accordance with an **Emergency Deenergisation Instruction**; or (iii) solely as a result of an **User Emergency Deenergisation**; a) An **Export BM Unit** comprised in the **User's Equipment** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised**; or b) an **Associated Export BMU** of an **Affected User** is (other than an **Interconnector Owner**) **Deenergised** from the **National Electricity Transmission System**; or ~~b~~c) an **Interconnector** of an **Affected User** who is an **Interconnector Owner** is **Deenergised**.; or ~~c~~d) The **Maximum Export Limit** in respect of the **BM Unit(s)** associated with such **User's Equipment** is zero.
"**Interruption Payment**"	the payment for a **Relevant Interruption** calculated as follows: 1) In the case of a **Relevant Interruption** arising as a result of a **Planned Outage;** In the case of an **Affected User** other than an **Interconnector Owner** $\sum_{i=k}^{i=n} \text{Maximum}(\textbf{Average daily £ per MW rate}_i, \textbf{Actual daily £ per MW rate}_i) * \textbf{Affected MW}_i$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{i=k}^{i=n} \textbf{Average daily £ per MW rate}_i * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where:

i = calendar days

k = 1, representing the first calendar day associated with a **Relevant Interruption.**

n = number of complete or part complete calendar days of a **Relevant Interruption**

2) In the case of a **Relevant Interruption** arising as a result of either an **Emergency Deenergisation Instruction** or a **User Emergency Deenergisation**

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the time when the **Emergency Deenergisation Instruction** was issued by **The Company** or commencement of the **User Emergency Deenergisation** (as applicable), with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the **Interruption Period**), in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement Periods** for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a Relevant Interruption a sum calculated as 1 above save that k shall be equal to 2.

3) In the case of all other Relevant Interruptions:

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the start of the **Relevant Interruption,** with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the **Interruption Period**)**,** in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement Periods** for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a **Relevant Interruption** a sum calculated in accordance with paragraph 1 above save that k shall be equal to 2.

Provided always that an **Affected User** shall not receive payment in respect of more than one **Relevant Interruption** for the same period**.**

4. In the event of the relevant **Market Price** being zero then for purpose of paragraphs 2 or 3 above the **Market Price** shall be deemed to be the most recent preceding positive price.

Throughout this definition of **Interruption Payment**:

Average daily £ per MW rate = (TNUoS income derived from generators/ total system **Transmission Entry Capacity**) **/** 365, calculated by reference in each case to figures for the **Financial Year** prior to that in which the **Relevant Interruption** occurs to give a daily £ per MW rate;

Actual daily £ per MW rate = (Annual TNUoS charge of an **Affected User** for the **Financial Year** /**Transmission Entry Capacity** for the **Connection Site**) / 365 calculated by reference to the tariff in the **Statement of Use of System Charges** for the **Financial Year** in which the **Relevant Interruption** occurs;

Affected MW =

in the case of either **Export BM Units** or **Associated Affected Export BMUs**, the MW arrived at after deducting from the **Transmission Entry Capacity** for the **Connection Site** the sum of the **Connection Entry Capacity** of the unaffected **Export BM Units** as appropriate at the **Connection Site;**

System Buy Price is as defined in the **Balancing and Settlement Code;**

Market Price is as defined in the **Balancing and Settlement Code.**

"**Interruption Period**"

For a **Planned Outage**, shall mean the period in whole calendar days commencing with the notification of the **Affected User** by **The Company** of the start of **Relevant Interruption** and ending on the notification of the **Affected User** by **The Company** that the **Relevant Interruption** has ended;

For **Relevant Interruptions** arising as a result of:

i) an **Emergency Deenergisation Instruction**, shall mean the period from the start of the **Settlement Period** in which **The Company** gave notification to the **Affected User** of the start of such **Relevant Interruption**; or

ii) a **User Emergency Deenergisation**, shall mean the period from the start of the **Settlement Period** in which the **User Emergency Deenergisation** commenced,

until the end of the **Settlement Period** in respect of which (i) **The Company** gave notification to the **Affected User** by **The Company** that the **Relevant Interruption** has ended or (ii), in the case of a **User Emergency Deenergisation**, means the earlier of (a) when the **Export BM Unit** is **Reenergised** or (b) when the issue on the **National Electricity Transmission System** giving rise to the **User Emergency Denergisation** is resolved, which shall be measured in:

i) whole **Settlement Periods** for the first 24 hours from the time of either notification by **The Company** to the **Affected User** of the start of such **Relevant Interruption** or when the **User Emergency Deenergisation** commenced (as applicable); and

ii) whole calendar days for any time after the first 24 hour period referred to in i) above.

In the case of all other **Relevant Interruptions** the duration, shall mean the period from the start of such **Relevant Interruption**

which shall be measured in:

i) whole **Settlement Periods** for the first 24 hours from the start of such **Relevant Interruption**; and

ii) whole calendar days for any time after the first 24 hour period referred to in i) above.

Add the following new Definitions at CUSC Section 11

"**Associated Export BM Unit**"	an **Export BM Unit** where: i) that **Export BM Unit** and an **Import BM Unit** are comprised in the **User's Equipment** are both registered as being associated with each other in respect of and listed (in the case of the **Import BM Unit** being referred to as a "Station BM Unit") in **Appendix C** of the same **Bilateral Connection Agreement;** and the **Import BM Unit** is **Deenergised** and as a direct consequence of the **Deenergisation** of the **Import BM Unit** the **Export BM Unit** is also **Deenergised**;
"**Export BM Unit**"	a **BM Unit** registered in accordance with Section K of the **BSC** in respect of **Export**;
"**Import BM Unit**"	a **BM Unit** registered in accordance with Section K of the **BSC** in respect of **Import**;
Unacceptable Operating Condition	a failure of **Plant** and **Apparatus** forming part of the **National Electricity System Transmission System** that results in the following effect at the **Connection Site**: i) the loss of one or more phases causing an energy unbalance (**Grid Code** CC6.1.6); ii) frequency being outside the ranges listed in **Grid Code** CC6.1.3; iii) voltages being outside values stated in **Grid Code** CC6.1.4; iv) loss of synchronising signal to an **Export BMU Unit**;
"User Emergency Deenergisation"	the **Deenergisation** of the **User's Equipment** or equipment for which that **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) by a **User** pursuant to **CUSC** Paragraph 5.2.2 or by automatic means as a direct consequence of an **Unacceptable Operating Condition**; ~~the **Deenergisation** by a **User** (or by automatic means) of the **User's Equipment** or equipment for which that **User** is responsible~~

~~(as defined in Section K of the **Balancing and Settlement Code**) pursuant to **CUSC** Paragraph 5.2.2 as a direct consequence of an **Unacceptable Operating Condition**;~~

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"**Interruption**"

where either:-

(i) solely as a result of **Deenergisation** of **Plant and Apparatus** forming part of the **National Electricity Transmission System**; or

(ii) in accordance with an **Emergency Deenergisation Instruction**; or

(iii) solely as a result of an **User Emergency Deenergisation**;

a) A **BM Unit** comprised in the **User's Equipment** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised**; or

b) an **Interconnector** of an **Affected User** who is an **Interconnector Owner** is **Deenergised**.; or

c) The **Maximum Export Limit** in respect of the **BM Unit(s)** associated with such **User's Equipment** is zero.

"**Interruption Payment**"

the payment for a **Relevant Interruption** calculated as follows:

1) In the case of a **Relevant Interruption** arising as a result of a **Planned Outage;**

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{i=k}^{i=n} \text{Maximum}(\textbf{Average daily £ per MW rate}_i, \textbf{Actual daily £ per MW rate}_i) * \textbf{Affected MW}_i$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{i=k}^{i=n} \textbf{Average daily £ per MW rate}_i * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where:

i = calendar days

k = 1, representing the first calendar day associated with a **Relevant Interruption.**

n = number of complete or part complete calendar days of a **Relevant Interruption**

2) In the case of a **Relevant Interruption** arising as a result of either an **Emergency Deenergisation Instruction** or a **User Emergency Deenergisation**

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the time when the **Emergency Deenergisation Instruction** was issued by **The Company** or commencement of the **User Emergency Deenergisation** (as applicable), with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the **Interruption Period**), in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement**

Periods for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a Relevant Interruption a sum calculated as 1 above save that k shall be equal to 2.

3) In the case of all other Relevant Interruptions:

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the start of the **Relevant Interruption,** with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the

Interruption Period), in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement Periods** for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a **Relevant Interruption** a sum calculated in accordance with paragraph 1 above save that k shall be equal to 2.

Provided always that an **Affected User** shall not receive payment in respect of more than one **Relevant Interruption** for the same period**.**

4. In the event of the relevant **Market Price** being zero then for purpose of paragraphs 2 or 3 above the **Market Price** shall be deemed to be the most recent preceding positive price.

Throughout this definition of **Interruption Payment**:

Average daily £ per MW rate = (TNUoS income derived from generators/ total system **Transmission Entry Capacity**) **/** 365, calculated by reference in each case to figures for the **Financial Year** prior to that in which the **Relevant Interruption** occurs to give a daily £ per MW rate;

Actual daily £ per MW rate = (Annual TNUoS charge of an **Affected User** for the **Financial Year** /**Transmission Entry Capacity** for the **Connection Site**) / 365 calculated by reference to the tariff in the **Statement of Use of System Charges** for the **Financial Year** in which the **Relevant Interruption** occurs;

Affected MW =

the MW arrived at after deducting from the **Transmission Entry Capacity** for the **Connection Site** the sum of the **Connection Entry Capacity** of the unaffected **BM Units** at the **Connection Site;**

System Buy Price is as defined in the **Balancing and Settlement Code;**

Market Price is as defined in the **Balancing and Settlement Code.**

"**Interruption Period**" For a **Planned Outage**, shall mean the period in whole calendar days commencing with the notification of the **Affected User** by **The Company** of the start of **Relevant Interruption** and ending on the notification of the **Affected User** by **The Company** that the **Relevant Interruption** has ended;

For **Relevant Interruptions** arising as a result of:

i) an **Emergency Deenergisation Instruction**, shall mean the period from the start of the **Settlement Period** in which **The Company** gave notification to the **Affected User** of the start of such **Relevant Interruption**; or

ii) a **User Emergency Deenergisation**, shall mean the period from the start of the **Settlement Period** in which the **User Emergency Deenergisation** commenced,

until the end of the **Settlement Period** in respect of which (i) **The Company** gave notification to the **Affected User** by **The Company** that the **Relevant Interruption** has ended or (ii), in the case of a **User Emergency Deenergisation**, means the earlier of (a) when the **Export BM Unit** is **Reenergised** or (b) when the issue on the **National Electricity Transmission System** giving rise to the **User Emergency Denergisation** is resolved, which shall be measured in:

i) whole **Settlement Periods** for the first 24 hours from the time of either notification by **The Company** to the **Affected User** of the start of such **Relevant Interruption** or when the **User Emergency Deenergisation** commenced (as applicable); and

ii) whole calendar days for any time after the first 24 hour period referred to in i) above.

In the case of all other **Relevant Interruptions** the duration, shall mean the period from the start of such **Relevant Interruption** which shall be measured in:

i) whole **Settlement Periods** for the first 24 hours from the start of such **Relevant Interruption**; and

ii) whole calendar days for any time after the first 24 hour period referred to in i) above.

Add the following new Definitions at CUSC Section 11

"**Export BM Unit**"	a **BM Unit** registered in accordance with Section K of the **BSC** in respect of **Export**;
Unacceptable Operating	a failure of **Plant** and **Apparatus** forming part of the **National**

Condition	**Electricity System Transmission System** that results in the following effect at the **Connection Site**: i) the loss of one or more phases causing an energy unbalance (**Grid Code** CC6.1.6); ii) frequency being outside the ranges listed in **Grid Code** CC6.1.3; iii) voltages being outside values stated in **Grid Code** CC6.1.4; iv) loss of synchronising signal to an **Export BMU Unit**;
"User Emergency Deenergisation"	the **Deenergisation** of the **User's Equipment** or equipment for which that **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) by a **User** pursuant to **CUSC** Paragraph 5.2.2 or by automatic means as a direct consequence of an **Unacceptable Operating Condition**;

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"**Affected User**"	a **User**: a) with **Transmission Entry Capacity** for the **Connection Site** against which the affected **Export BM Unit** or **Associated Export BM Unit** is registered and who is paying or in receipt of generator **Transmission Network Use of System Charges** by reference to such **Transmission Entry Capacity**; or b) an **Interconnector Owner**;
"**Interruption**"	where either:- (i) solely as a result of **Deenergisation** of **Plant and Apparatus** forming part of the **National Electricity Transmission System**; or (ii) in accordance with an **Emergency Deenergisation Instruction**: a) An **Export BM Unit** comprised in the **User's Equipment** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised**; or b) an **Associated Affected Export BMU** comprised in the **User's Equipment** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised** from the **National Electricity Transmission System**; or c) an **Interconnector** of an **Affected User** who is an **Interconnector Owner** is **Deenergised**.; or d) The **Maximum Export Limit** in respect of the **BM Unit(s)** associated with such **User's Equipment** is zero. or (iii) solely as a result of an **User Emergency Deenergisation** an **Associated Affected Export BMU** comprised in the **User's Equipment** of an **Affected User** (other than an **Interconnector Owner**) is **Deenergised** from the **National Electricity Transmission System.**

"**Interruption Payment**" the payment for a **Relevant Interruption** calculated as follows:

1) In the case of a **Relevant Interruption** arising as a result of a **Planned Outage;**

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{i=k}^{i=n} \text{Maximum}(\textbf{Average daily £ per MW rate}_i, \textbf{Actual daily £ per MW rate}_i) * \textbf{Affected MW}_i$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{i=k}^{i=n} \textbf{Average daily £ per MW rate}_i * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where:

i = calendar days

k = 1, representing the first calendar day associated with a **Relevant Interruption.**

n = number of complete or part complete calendar days of a **Relevant Interruption**

2) In the case of a **Relevant Interruption** arising as a result of either an **Emergency Deenergisation Instruction** or a **User Emergency Deenergisation**

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the time when the **Emergency Deenergisation Instruction** was issued by **The Company** or commencement of the **User Emergency Deenergisation** (as applicable), with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the **Interruption Period**), in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement Periods** for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a Relevant Interruption a sum calculated as 1 above save that k shall be equal to 2.

3) In the case of all other Relevant Interruptions:

In the case of an **Affected User** other than an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \textbf{Affected MW}_j$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \textbf{Affected MW}_j$$

In the case of an **Affected User** who is an **Interconnector Owner**

$$\sum_{j=1}^{j=p} \textbf{System Buy Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

Plus (if applicable)

$$\sum_{j=4}^{j=m} \textbf{Market Price}_j * 0.5 * \text{MW specified as the } \textbf{Transmission Entry Capacity} \text{ for the } \textbf{Connection Site}$$

where;

j = **Settlement Periods** from the start of the **Relevant Interruption,** with 1 representing the first **Settlement Period.**

m = The duration of the **Relevant Interruption** (being the **Interruption Period**)**,** in **Settlement Periods** for which **Gate Closure** has not yet occurred (which shall be greater than 3, up to a maximum value of 48)

p = The duration of the **Relevant Interruption** in **Settlement Periods** for which **Gate Closure** has occurred (up to a maximum value of 3).

and after the first 24 hours of a **Relevant Interruption** a sum calculated in accordance with paragraph 1 above save that k shall be equal to 2.

Provided always that an **Affected User** shall not receive payment in respect of more than one **Relevant Interruption** for the same period**.**

4. In the event of the relevant **Market Price** being zero then for purpose of paragraphs 2 or 3 above the **Market Price** shall be deemed to be the most recent preceding positive price.

Throughout this definition of **Interruption Payment**:

Average daily £ per MW rate = (TNUoS income derived from generators/ total system **Transmission Entry Capacity**) **/** 365, calculated by reference in each case to figures for the **Financial Year** prior to that in which the **Relevant Interruption** occurs to give a daily £ per MW rate;

Actual daily £ per MW rate = (Annual TNUoS charge of an **Affected User** for the **Financial Year** /**Transmission Entry Capacity** for the **Connection Site**) / 365 calculated by reference to the tariff in the **Statement of Use of System Charges** for the **Financial Year** in which the **Relevant Interruption** occurs;

Affected MW = in the case of either **Export BM Units** or **Associated Affected Export BMUs**, the MW arrived at after deducting from the **Transmission Entry Capacity** for the **Connection Site** the sum of the **Connection Entry Capacity** of the unaffected **Export BM Units** at the **Connection Site;**

System Buy Price is as defined in the **Balancing and Settlement Code;**

Market Price is as defined in the **Balancing and Settlement Code.**

"**Interruption Period**"

For a **Planned Outage**, shall mean the period in whole calendar days commencing with the notification of the **Affected User** by **The Company** of the start of **Relevant Interruption** and ending on the notification of the **Affected User** by **The Company** that the **Relevant Interruption** has ended;

For **Relevant Interruptions** arising as a result of:

i) an **Emergency Deenergisation Instruction**, shall mean the period from the start of the **Settlement Period** in which **The Company** gave notification to the **Affected User** of the start of such **Relevant Interruption**; or

ii) a **User Emergency Deenergisation**, shall mean the period from the start of the **Settlement Period** in which the **User Emergency Deenergisation** commenced,

until the end of the **Settlement Period** in respect of which **The Company** gave notification to the **Affected User** by **The Company** that the **Relevant Interruption** has ended, or (ii), in the case of a **User Emergency Deenergisation**, means the earlier of (a) when the **Export BM Unit** is **Reenergised** or (b) when the issue on the **National**

Electricity Transmission System giving rise to the **User Emergency Denergisation** is resolved, which shall be measured in:

i) whole **Settlement Periods** for the first 24 hours from the time of either notification by **The Company** to the **Affected User** of the start of such **Relevant Interruption** or when the **User Emergency Deenergisation** commenced (as applicable); and

ii) whole calendar days for any time after the first 24 hour period referred to in i) above.

In the case of all other **Relevant Interruptions** the duration, shall mean the period from the start of such **Relevant Interruption** which shall be measured in:

i) whole **Settlement Periods** for the first 24 hours from the start of such **Relevant Interruption**; and

ii) whole calendar days for any time after the first 24 hour period referred to in i) above.

Add the following new Definitions at CUSC Section 11

"**Associated Export BM Unit**"	an **Export BM Unit** where: i) that **Export BM Unit** and an **Import BM Unit** comprised in the **User's Equipment** are both registered in respect of and listed (in the case of the **Import BM Unit** being referred to as a "Station BM Unit") in **Appendix C** of the same **Bilateral Connection Agreement;** and the **Import BM Unit** is **Deenergised** and as a direct consequence of the **Deenergisation** of the **Import BM Unit** the **Export BM Unit** is also **Deenergised**;
"**Export BM Unit**"	a **BM Unit** registered in accordance with Section K of the **BSC** in respect of **Export**;
"**Import BM Unit**"	a **BM Unit** registered in accordance with Section K of the **BSC** in respect of **Import**;
"User Emergency Deenergisation"	the **Deenergisation** of the **User's Equipment** or equipment for which that **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) by a **User** pursuant to **CUSC** Paragraph 5.2.2 or by automatic means as a direct consequence of an **Unacceptable Operating Condition**; ~~the **Deenergisation** by a **User** (or by automatic means) of an~~

	~~**Import BM Unit** only;~~ ~~of the **User's Equipment** or equipment for which that **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) pursuant to **CUSC** Paragraph 5.2.2 as a direct consequence of an **Unacceptable Operating Condition**;~~
Unacceptable Operating Condition	a failure of **Plant** and **Apparatus** forming part of the **National Electricity System Transmission System** that results in the following effect at the **Connection Site**: i) the loss of one or more phases causing an energy unbalance (**Grid Code** CC6.1.6); ii) frequency being outside the ranges listed in **Grid Code** CC6.1.3; iii) voltages being outside values stated in **Grid Code** CC6.1.4; iv) loss of synchronising signal to an **Import BMU Unit**;