AMENDMENT REPORT

CUSC Proposed Amendment CAP076
Treatment of System to Generator Intertripping Schemes

The purpose of this report is to assist the Authority in their decision of whether to implement Amendment Proposal CAP076

Amendment Ref	CAP076
Issue	1.0
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Prepared by	National Grid

I DOCUMENT CONTROL

a National Grid Document Control

Version	Date	Author	Change Reference
0.1		National Grid	Draft for internal comment
0.2		National Grid	Draft for Industry comment
1.0		National Grid	Formal version for submission to the Authority

b Document Location

Nation Grid Website:

http://www.nationalgrid.com/uk/indinfo/cusc

c Distribution

Name	Organisation
The Gas and Electricity Markets Authority	Ofgem
CUSC Parties	Various
Panel Members	Various
National Grid Industry Information Website	

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1.0 SUMMARY

1.1 CAP076 was proposed by National Grid and submitted to the CUSC Amendments Panel for consideration at its meeting on 20 August 2004. The Amendments Panel determined that CAP076 should be considered by a Working Group. The final Working Group report was provided to the Panel on 18 December 2004.

1.2 The Working Group recommended that CAP076 and four Working Group Alternatives Amendments outlined below should proceed to wider consultation. The Panel agreed that the Working Group had fulfilled its Terms of Reference and it was appropriate to proceed to wider industry consultation by National Grid subject to minor changes to the final report, which were subsequently made. A copy of the Working Group report is available at the National Grid website:http://www.nationalgridinfo.co.uk/cusc/admin/scripts/uploads/CAP076%20-%20final%20working%20group%20report%20201204.pdf

1.3 CAP076 proposes a revised framework for System to Generator Intertripping Schemes. The proposal aims to clarify the obligations between National Grid and associated Generators in the area of the arming and operation of Schemes. In addition the proposal aims to establish an administered pricing mechanism within the CUSC for certain categories of intertrips.

1.4 The Working Group Alternative Amendments comprise of the original CAP076 proposal plus a number of options as follows :

A Original Amendment Proposal plus a bilaterally agreed arming fee based on the cost of insurance;
B Original Amendment Proposal plus an administered arming fee specified in the CUSC;
C Original Amendment Proposal plus a post event claims process for any resultant physical plant damage; and
D Original Amendment Proposal plus an administered arming fee specified in the CUSC plus a post event claims process for any resultant physical plant damage (i.e. B+C).

1.5 National Grid consulted on the Amendment Proposal and the Working Group Alternative Proposals on 23 December 2004 and the consultation closed on 16 February 2005. Eleven responses were received on the consultation. The majority supported the principle of CAP076 and Working Group Alternative Amendment Proposal D in particular.

National Grid Recommendation

1.6 As proposer of CAP076 National Grid believes that the original Amendment Proposal better facilitates the Applicable CUSC objectives as set out below. A copy of the original proposal is available at http://www.nationalgridinfo.co.uk/cusc/admin/scripts/uploads/CAP076%20-%20Treatment%20of%20System%20to%20Generator%20Intertripping%20Schemes.pdf

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

By removing the post-event Bid-Offer Acceptance from the Grid Code and introducing new terms for discrete categories of Schemes in the CUSC the

Amendment Proposal would enable National Grid to discharge its obligations under the Act and the licence more efficiently by:

- Removing National Grid and Industry exposure to the consequences of operation of a Scheme with an associated large negative bid price;
- Clarifying the CUSC based contractual framework;
- Clarifying the requirement to install certain categories of Schemes where required as a condition of connection for a Generator;
- Better enabling accurate economic assessment for installation of Schemes as against transmission reinforcement at the time that applications are made for new connections; and
- Minimising exposure of Generators to imbalance prices following operation of a Scheme and thereby mitigating some of the current reluctance by generators to arm and use Schemes.

(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.

Providing an improved framework for the treatment of Schemes would facilitate effective competition in the generation and supply of electricity by:

- Ensuring an enhanced level of market certainty with regard to processes, responsibilities and remuneration;
- Clarifying obligations on Generators whose Schemes are a condition of connection;
- Reducing the financial risks faced by Generators due to operation of Schemes; and
- Reducing the risks faced by the industry through BSUoS charges and the potential distortion of imbalance prices.

National Grid views on Working Group Alternative D

1.7 Whilst we believe that the original proposal best facilitates the relevant objectives, we believe that it is also possible that WGAA D potentially better facilitates the relevant objectives than the status quo. WGAA D consists of the original proposal plus an administered arming fee plus a post event claims process for any physical plant damage. In proposing CAP076 National Grid considered whether it would be appropriate to pay a generator an arming fee. Further to this consideration National Grid concluded not to include an arming fee as part of this proposal as there is no economic test that can be applied to deciding whether to arm or not. On the post events claims process, National Grid did not consider it appropriate to effectively insure a generator against any plant damage incurred as a result of the operation of an intertrip as this should already be mitigated by the generator as part of his normal operation.

1.8 However, if it were deemed to be appropriate for an arming fee and post event claims process to be included in the overall framework for the treatment of intertrips, it is National Grid's view that WGAA D would better facilitates the applicable objectives than the status quo.

Recommendation for implementation

1.9 It is recommended that CAP076 or any of the WGAAs should be implemented 25 business days after an Authority decision.

1.10 In order to successfully implement the overall package of proposals across different industry Governance areas, any decision, and subsequent implementation will need to be co-ordinated. The respective code documentation that has been presented to Ofgem has been put together with this in mind.

2.0 PURPOSE AND SCOPE OF THE REPORT

2.1 This Amendment Report has been prepared and issued by National Grid under the rules and procedures specified in the Connection and Use of System Code (CUSC) as designated by the Secretary of State.

2.2 Further to the submission of Amendment Proposal CAP076 (see Annex 1) and the subsequent wider industry consultation that was undertaken by National Grid, this document is addressed and furnished to the Gas and Electricity Markets Authority ("the Authority") in order to assist it in its decision whether to implement Amendment Proposal CAP076 or any of the WGAAs.

2.3 This document outlines the nature of the CUSC changes that are proposed. It incorporates National Grid's recommendations to the Authority concerning the Amendment. Copies of all representations received in response to the consultation have been included and a 'summary' of the representations received is also provided. Copies of each of the responses to the consultation are included as Annex 3 to this document.

2.4 This Amendment Report has been prepared in accordance with the terms of the CUSC. An electronic copy can be found on the National Grid website, at http://www.nationalgrid.com/uk/indinfo/cusc

3.0 THE PROPOSED AMENDMENT

Basis of the Proposal

3.1 CAP076 proposes a revised framework for System to Generator Intertripping Schemes. An intertrip is a device that may be "armed" so that it automatically trips a breaker that removes a generator from the transmission system when it receives a specific signal. The signal is delivered if a predetermined fault on a specific part of the transmission system occurs. The requirement for an intertrip is usually identified at the time of connection of a generator, and is specified within the Bilateral Connection Agreement (BCA) that is agreed between National Grid and the Generator for that connection.

3.2 CAP076 aims to clarify the obligations between National Grid and the associated Generator in the area of the arming and operation of the Scheme. In addition the proposal aims to establish an administered pricing mechanism within the CUSC for certain categories of intertrips.

3.3 Categories of intertrips are proposed to be defined within the CUSC, and these categories will be used to define differing treatments for "mandatory" intertrips (i.e. installed as a condition of connection) as Ancillary Services. Site specific details of individual schemes (including the categorisation) will be included in the BCAs which are established pursuant to the CUSC.

3.4 CAP076 is intended to improve upon the current arrangements by including a clear definition of different categories of intertrips, and a transparent mechanism, via the CUSC, for administered payments, where the payments are intended to reflect the appropriate costs being incurred by a generator. The proposal also highlights that where an intertrip is required to cover for 'wider-system issues' (rather than the connection specific circumstances envisaged by the four proposed categories) then bilateral commercial arrangements would be sought between National Grid and the generator.

3.5 CAP076 proposes that the CUSC will also contain provisions for obligations on providers relating to the arming of schemes via a simple clause in Section 4 (which states that intertrips will be armed in accordance with the Grid Code and site specific details contained within the BCA). Provisions relating to the physical arming of intertrips will be contained within the Grid Code.

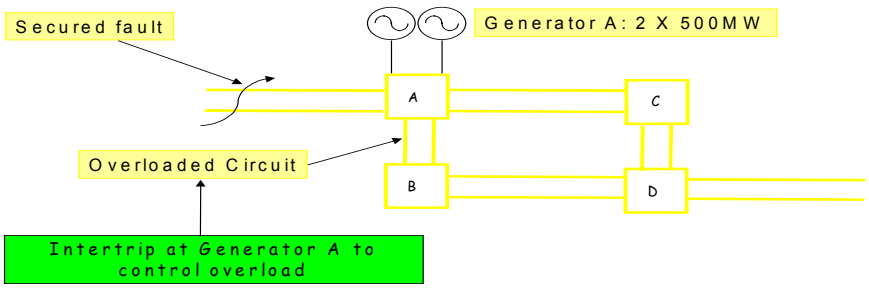
Categories

3.6 The proposed categories of intertrips are indicated below along with a illustration of each category:

3.7 CAP076 proposes four categories of intertrips. The following section describes each of the proposed categories along with the key points arising out of the Working Group discussions.

Category 1: A System to Generator Intertripping Scheme arising from a Variation to Connection Design consistent with the criteria specified in the Security and Quality of Supply Standards (SQSS) pursuant to Condition 17 of the Transmission Licence. This is illustrated diagrammatically below:

Category 1



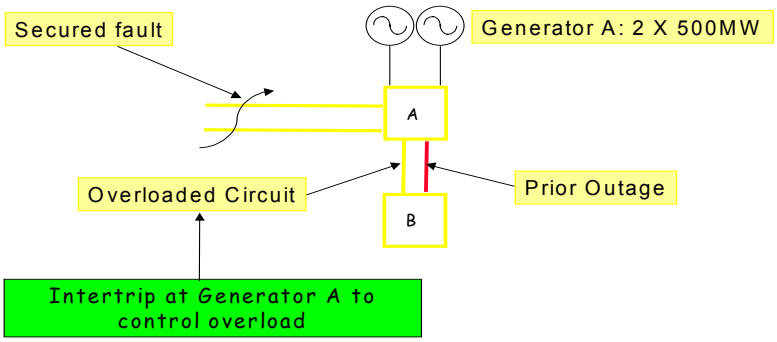
A, B, C and D are illustrative of nodes on the Transmission System. In the example here, the generator where an intertrip is required is connected to node A. 'Secured fault' means the fault that is being catered for, i.e. if the secured fault occurred, the circuit as indicated in the diagram would be overloaded if the generator was not inter-tripped i.e. if the secured fault arose, the generator would be tripped off, and the highlighted circuit would not overload.

3.8 These intertrips are used to facilitate a Variation to Connection Design. The specific criteria applied to Connection Design are contained within the SQSS but an intertrip would only be acceptable if it did not reduce the security of the transmission system as a whole, affect any third party, or compromise National Grid's ability to meet other statutory or licence obligations. A Category 1 intertrip could also apply if an existing power station was seeking to expand its capacity.

3.9 The installation of a Category 1 intertrip is an option for the generator, although an economic assessment of the costs of any required re-inforcement would be undertaken by National Grid. The installation of the intertrip would remove the requirement for any system reinforcement and so the intertrip would be required for the lifetime of the plant. (It was noted by the Working Group that no Category 1 intertrips are currently in existence on the England and Wales Transmission System).

Category 2: A System to Generator Intertripping Scheme required to alleviate an overload that could occur on a circuit, that connects the group containing the Generator to the rest of the System. The operation of the Scheme means any MW reduction from the Generator has exactly the same MW reduction on the circuits that connect the Generator to the rest of the System (when any system losses or third party system effects are ignored). The Scheme is installed in accordance with the requirements of the planning criteria of the SQSS for measures to be taken to permit maintenance access for each transmission circuit and for such measures to be economically justified. This is illustrated diagrammatically below:

Category 2



3.10 A Category 2 intertrip is only armed during periods when maintenance to specific circuits is being undertaken. As the purpose is to deal with maintenance, the inclusion of an intertrip would be consistent with the SQSS, whereas the addition of an extra line would not be.

3.11 This category is intended to cover local issues i.e. the intertrip is required when there are outages on local circuits (as specified in the BCA) and the generator concerned is the only one that can reduce the overload if fault conditions occur. The intertrip would be required if it were deemed to be the least cost option for the industry (i.e. comparison of cost of intertrip vs cost of re-inforcement or cost of pre-fault restrictions). This category arises where the generator is the sole cause for creating the potential overload, and hence there is no other potential provider of the intertrip. However, the Working Group noted that the possibility remains that an additional generator(s) at the connection point would result in other potential providers. It was suggested that it was incorrect to assert that the generator was the sole cause of overload, since the overload would primarily be attributable to a transmission circuit fault and also influenced by the lack of infrastructure reinforcement, system configuration, load flows, demand etc.

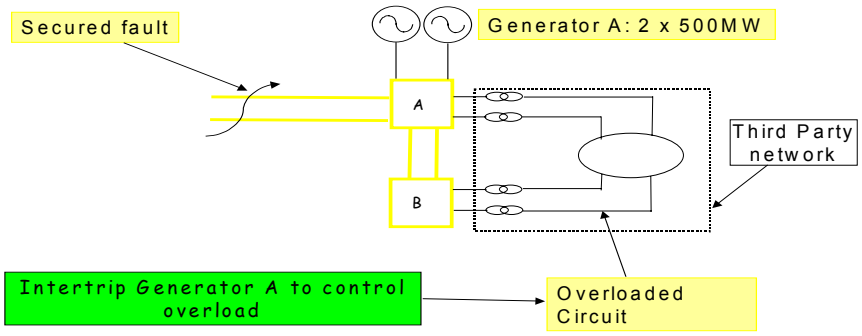
3.12 It was agreed that this category of intertrip would only be armed when the outage conditions (as specified in the BCA) occurred. Thus there would be a time-limited requirement for arming, but this arming would be required periodically throughout the lifetime of the plant. There is no element of choice for the generator in relation to the installation of this category of intertrip.

3.13 The Working Group considered the scenario where a new generator connected at the same node as a generator who already had the requirement

for a Category 2 intertrip. In this instance it was agreed that the new generator would also require a Category 2 intertrip if it led to an overload on the system.

Category 3: A System to Generator Intertripping Scheme installed as an alternative to reinforcement of a third party system where the Scheme removes overloads on the third party system e.g. DNO System. The Scheme is installed in accordance with paragraph 1.4 of the SQSS. This is illustrated diagrammatically below:

Category 3

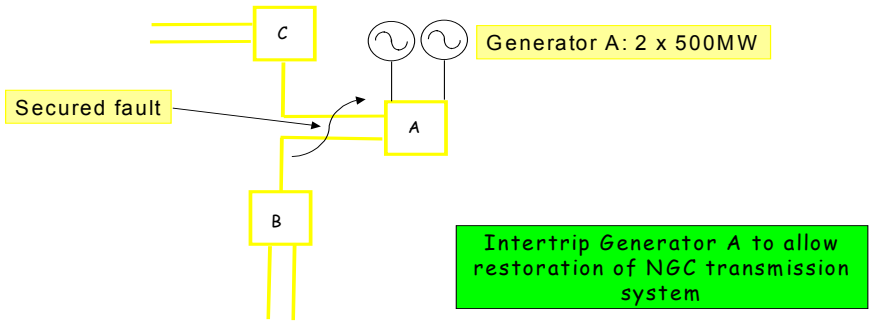


3.14 In these instances the Generator has the choice of contracting with the third party to undertake the required re-inforcement work, or to have the intertrip. The intertrip would only be acceptable if it satisfied the same criteria as for Category 1.

3.15 The Working Group discussed the make up of the liabilities in existence across DNO/Generator boundaries. There is no legal obligation on National Grid to fund 3rd party work, and additionally no contractual relationship between the generator and the DNO. The role of National Grid only extends to ensuring that the necessary connections to the Transmission System are in place, therefore it would be a condition of any offer that the 3rd party works were undertaken, or an intertrip was installed. A Category 3 intertrip would only arise as a result of a generator request. (It was noted by the Working Group that no Category 3 intertrips are currently in existence on the England and Wales Transmission System).

Category 4: A System to Generator Intertripping Scheme installed at the request of National Grid under circumstances when the Generator would be disconnected from the Transmission System and where the use of such Schemes would be beneficial to facilitate the timely restoration of critical circuits. This is illustrated diagrammatically below:

Category 4



3.16 The nature of a Category 4 intertrip means a Generator will always be subject to disconnection from the Transmission system for credible faults. An intertrip will provide the Generator with the quickest indication of a disconnection and therefore should allow the Generator to control the disconnection in the safest manner. Intertripping the Generator would then allow operation of Delayed Auto Reclose (DAR) on the Transmission System that gives quicker restoration of the substation to which the Generator was connected and improves the overall integrity of the Transmission System.

3.17 The requirement for this type of intertrip arises in circumstances where a generator could overspeed after a fault and additionally out of the use of DAR protection that is used as a matter of course on critical transmission circuits. The DAR cannot operate (i.e. potentially switch a circuit back in) in circumstances where a generator remains connected post-fault to the circuit (because the generator will no longer be synchronised with the main transmission system), and the intertrip is therefore required to ensure that the generator is completely disconnected as quickly as possible to safeguard the overall operation of the transmission system.

3.18 The intertrip ensures that the generator is removed in the quickest possible time. If the intertrip was not installed then National Grid would have to switch out the DAR.

3.19 DAR on the Transmission Network is in place to cover “beyond the credible events” such as extreme weather conditions (i.e. multiple lightning strikes) leading to multiple double circuit faults. DAR is concerned with maintaining the integrity of the transmission system, and ensuring the quickest return to service after faults.

3.20 The basis for installing DAR was questioned, since requiring a generator to operate with an intertrip scheme armed simply to allow DAR to operate may not necessarily be the most economic solution. The proposer confirmed that the basis for installing DAR equipment does not sit within the SQSS but has been used to ensure the prudent operation of the system from pre-privatisation up to the present.

3.21 It was confirmed that no more than 1320MW would be tripped off by a Category 4 intertrip. This is because the SQSS allows the connection of 1320MW on a double circuit. The consequence of a fault on the circuit is to trip the generator or allow it to go into overspeed.

3.22 Where a Scheme is not covered by the categories above or is used to resolve general transmission system issues as a commercial requirement, terms and remuneration for the scheme would be subject to separate commercial arrangements not covered under the above categories.

Payment Process for each category

3.23 CAP076 contains specific proposals for the payments for inclusion in the CUSC in relation to the different categories of intertrips. The initially proposed payment process across the categories is outlined below.

3.24 Category 1 – as this category relates to circumstances arising as a condition of a Variation to Connection Design it is not proposed that this category receives any compensation. This is consistent with the SQSS requirements which states that a Variation to Connection Design must not result in additional costs to any other User.

3.25 Removal of exposure to imbalance – For categories 2, 3 and 4, CAP076 proposes that the intertrips are defined as 'Applicable Balancing Services' to enable the removal of the appropriate volume from the imbalance calculations in the BSC. This mechanism is not described in the CUSC.

3.26 Additional payments are proposed for categories 2 and 4, in the form of a capability fee and a tripping fee. These would be administered payments and defined within the CUSC. The amendment proposal did not specify the levels of the payments and these were discussed and developed as part of the Working Group process.

- Annual capability fee (£/annum). This would be payable for the installation and right to arm the scheme. This fee would cover administrative costs, training and overhead costs at the station, associated with the provision of the scheme. The fee would also cover the costs of installing and maintaining the user's equipment for the scheme within the station e.g. additional staff training, upkeep of policies and procedures together with technical maintenance of the intertrip.

- Tripping fee (£/MW/trip). This would cover a number of costs such as wear-and-tear arising from a trip and additional fuel costs. The fee would specifically exclude consequential losses.

3.27 The proposer confirmed that CAP076 only related to System to Generator intertrips, and more particularly those covered by the definitions of Categories 1 – 4.

Tripping Fee

3.28 In relation to tripping fees, it was agreed that a single '£'/trip figure was probably more appropriate than a '£/MW' figure. The Working Group agreed that the tripping fee should be a figure that is based on a 'per generating unit' basis.

3.29 An approach based in part on 'Equivalent Operating Hours' (EOH) was used to establish a tripping fee. A figure of 300 EOH for each trip was used with a

range of prices per EOH from £250/EOH to £700/EOH (depending on the generating technology and other factors).

3.30 The figure for tripping fee includes the costs per EOH, wear and tear on ancillary plant, and also the start-up fuel required to bring the unit back. The Working Group considered a range of tripping fees from £100k for a gas generating unit to £400k for a coal generating unit. A figure of £400k per generating unit per trip was agreed so as to ensure all generators are remunerated sufficiently for the costs incurred should an intertrip operate.

Capability Fee

3.31 The capability fee was intended to cover the costs of staff training. Again, a range of costs was discussed, based on the time to train one individual, the number of individuals requiring to be trained, typical patterns of shift working and the full time equivalent cost of these individuals. The Working Group agreed that a figure of £30k per annum should be used.

Restricted Export Level Payment

3.32 For Categories 2, 3 and 4, CAP076 also proposes that, should National Grid be unable to restore Transmission Capacity within 24 hours following the trip, the party with the affected Generating Unit(s) would receive a restricted export level payment at a daily rate to remunerate the restriction on their access to the Transmission System. This would be calculated in a way that is consistent with the standard CUSC payments for disconnections (as introduced via CAP 48).

4.0 ASSESSMENT AGAINST THE APPLICABLE CUSC OBJECTIVES

4.1 CUSC Amendments are required to be assessed in terms of their ability to better facilitate achievement of the applicable CUSC Objectives. These are set out in Paragraph 1 of Condition C10 of National Grid's Transmission Licence and can be summarised as follows:

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

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

CAP076 Original Proposal

4.2 Further to discussion at the Working Group and following the conclusion of industry consultation, National Grid continues to believe that the original amendment proposal would better achieve the applicable CUSC objectives in the manner described on the original Amendment Proposal form and re-iterated below.

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

4.3 By removing the post-event Bid-Offer Acceptance from the Grid Code and introducing new terms for discrete categories of Schemes in the CUSC the Amendment Proposal would enable National Grid to discharge its obligations under the Act and the licence more efficiently by:

- Removing National Grid and Industry exposure to the consequences of operation of a Scheme with an associated large negative bid price;
- Clarifying the CUSC based contractual framework;
- Clarifying the requirement to install certain categories of Schemes where required as a condition of connection for a Generator;
- Better enabling accurate economic assessment for installation of Schemes as against transmission reinforcement at the time that applications are made for new connections; and
- Minimising exposure of Generators to imbalance prices following operation of a Scheme and thereby mitigating some of the current reluctance by generators to arm and use Schemes.

(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.

4.4 Providing an improved framework for the treatment of Schemes would facilitate effective competition in the generation and supply of electricity by:

- Ensuring an enhanced level of market certainty with regard to processes, responsibilities and remuneration;

- Clarifying obligations on Generators whose Schemes are a condition of connection;

- Reducing the financial risks faced by Generators due to operation of Schemes; and

- Reducing the risks faced by the industry through distortion of imbalance prices.

4.5 There was some support from the Working Group that the proposal met applicable objective a), however, other members felt that the efficiency arguments were undermined as the proposal failed to factor in aspects of consequential loss and therefore could not be regarded as providing the opportunity to make a full economic judgement.

4.6 It was also suggested that the use of administered payments in the CUSC would lead to inefficiencies (by their very nature) thereby undermining objective (a).

5.0 WORKING GROUP ALTERNATIVE AMENDMENTS

5.1 The Working Group discussed a number of potential alternatives to CAP076. Further to the consideration of each of the proposed alternative options and the consideration of various combinations of the different options that arose, Working Group members proposed four Working Group Alternative Amendments (WGAAs) which they believed better facilitated the the Applicable CUSC Objectives and should be put forward for consultation. These WGAAs have been referred to as alternatives A-D in this consultation, the draft legal text, and the Working Group report. The WGAAs are as follows:

WGAA A - CAP076 + Payment of an Arming Fee (bilateral contract)

5.2 This WGAA proposes that in addition to the provisions of the CAP076 Proposal, an arming fee be paid by National Grid to the Generator in respect of each affected generating unit for the period(s) in which the intertrip scheme is instructed to be armed. The proposer of this alternative asserted that this arming fee would ensure that:

- National Grid is exposed to consequential costs, thereby ensuring that any decision to arm intertrip schemes would be economically justified. In addition, National Grid would be incentivised to either minimise or avoid the arming of such schemes.

- The Generator would be held neutral to consequential costs arising from the operation of an intertrip scheme, thereby facilitating the efficient utilisation of such schemes

5.3 It is proposed that the arming fee would be paid on a £ per settlement period per generating unit whilst the intertrip scheme is armed and that such fee would be cost based. Given the range of factors that would influence consequential costs arising, e.g. likelihood of an intertrip event occurring, generating plant type and design, etc, it is proposed that the arming fee would be agreed between the Generator and National Grid on an individual generating unit basis.

5.4 It is proposed that the arming fee would be based on the cost of an insurance premium required to negate any consequential costs that could occur if the intertrip scheme operated. The insurance premium would be payable for the period whilst the intertrip scheme is armed. The insurance premium could be derived from one or more sources willing to carry the associated risk, thereby ensuring that the arming fee would be competitively priced irrespective of the limited number of generating units that may be capable of meeting a specific intertrip requirement. Alternatively, National Grid could chose to indemnify the Generator in which case the arming fee would be set to zero.

5.5 The Working Group considered this alternative, and the justification provided by the member who had proposed it. The following points were made:

- It was clarified that it would not be the intention to publish the bilateral prices agreed. This raised transparency concerns;
- It was also clarified that there would be no intention to change the levels of the capability and tripping fee suggested in the original;
- It was suggested that this option, where National Grid would be paying upfront to insure against a very low probability event would not be efficient, and that an

insurance company may err on the side of caution, and hence charge at a premium rate for the cover;
- It was suggested that the cost reflective element of the payment rate could be determined from the actual cost of additional insurance premiums resulting from the intertrip requirement
- The proposer of CAP076 pointed out that one of the principles of the original amendment proposal was that all the payment arrangements, and levels, would be set out in a transparent manner in the CUSC. This alternative proposal moved away from this principle; by introducing a bilateral negotiation
- It was agreed that the principles to be applied in determining the bilateral arming fee needed to be strictly defined, and there may be a requirement to refer to the cost reflective charging principles defined in the CUSC;
- This alternative would ensure that the generators could take comfort that they were 'held whole' in the event of a trip;
- It was also suggested that the proposal could cause difficulties to the overall connection application process if agreement of the bilateral figure for intertrip arming could not be achieved;
- There could be difficulties in translating from what could be an annual insurance premium to a £/settlement period arming fee;
- It was not clear how the practicalities of this proposal would work in the event that National Grid decided to cover the risks itself, although it was suggested that this could be covered in the bilateral agreement; and
- This proposal would allow the fact that there was no unique answer to the value of risk, and the reasonable view of likely damage, to be covered on a case by case basis.

Working Group Assessment Against the CUSC Applicable Objectives

5.6 The Working Group discussed this WGAA and considered whether it better facilitated the Applicable CUSC Objectives. In support of Applicable Objective (a) it was felt that the correct price/cost of the risk being defined by a third party (insurer), ensures that economic efficiency is enhanced. Additionally it was suggested that the party carrying the risk of consequential costs arising from a trip would be paid as appropriate amount for assuming the risk. In support of Applicable Objective (b) the Working Group felt that competition is enhanced by ensuring that all generators are able to compete on an equal footing. Additionally it was suggested that competition will be increased by allowing a number of insurers to provide the necessary insurance. It would also be increased by allowing other parties, including National Grid, to assume the risk if they are willing to do so. It is not considered that lack of transparency would reduce competition, given that it has been asserted that no competition exists in the provision of category 1-4 intertrips.

5.7 In opposition to the Applicable Objectives it was felt that paying upfront to cover for an unlikely event is inefficient and in addition requires separate bilateral agreement and moves away from philosophy of CAP076. This process could also complicate the connection process if a bilateral figure cannot be agreed. The element of competition could be reduced by the lack of transparency associated with this process.

WGAA B – CAP076 + Payment of an arming fee and enhanced capability fee (administered in the CUSC)

5.8 Working Group Alternative B is based on, in addition to the provisions of the CAP076 Proposal, an arming fee that would be paid by National Grid to the Generator in respect of each affected generating unit for the period(s) in which the intertrip scheme is instructed to be armed.

5.9 It is proposed that the arming fee would be paid on a £ per settlement period per intertripping scheme whilst the intertrip scheme is armed and that such fee would be specified in the CUSC.

5.10 The arming payment would be intended to cover the costs to the generator of managing the additional risks imposed by the arming of the intertrip and of putting in place additional operational measures (including contingency plans and replacement energy cover) to mitigate those risks. This alternative proposes that a figure of £50k per week is used to determine the level of the arming fee.

5.11 The arming fee would apply to Category 2 intertrips only as they are intermittently armed. Category 4 intertrips as they are permanently armed should be paid an enhanced capability payment to cover the ongoing risk management costs.

5.12 An arming payment would be consistent with the payment structure for other comparable ancillary services in which an availability fee is paid to the generator for being in a state of readiness for an instruction or event. In addition to the costs of managing the risk of plant damage in the event of a trip, generators may incur costs in taking additional operation actions in preparation for the possible tripping of one or more generating units.

5.13 The proposer of this alternative asserted that this arming fee would ensure that National Grid is exposed to the variable costs associated with the arming of an intertrip, thereby ensuring that any decision to arm intertrip schemes would be economically justified. In addition, National Grid would be incentivised to either minimise or avoid the arming of such schemes.

Analysis of costs of proposed WGAA B

Number of Category 2 intertrip schemes:		22
Annual cost @ £1.72/Settlement period	=	£660,000
Number of Category 4 intertrip schemes:		10
Annual cost @ £4.57/Settlement period	=	£800,000
Hours of intertrip arming (cat 2):		2000
Annual cost @ £150/Settlement period	=	£600,000
Total industry cost (assuming no trips)	=	£2,060,000

This analysis results in the following administered levels to be included in the CUSC:

Category 2 Monthly Capability Payment: £1.72/Settlement Period

Category 2 Arming Payment: £150/Settlement Period/Scheme

Category 4 Monthly Capability and Arming Payment: £4.57/Settlement Period

Tripping Payment: £400,000/Trip

5.14 The Working Group considered this alternative, and the justification provided by the member who had proposed it. The following points were made:

- The proposer of the original CAP076 amendment noted that this alternative maintained the principle of limiting payments to administered payments specified in the CUSC, rather than through bilateral agreements. However they went on to say that an arming fee had been ruled out in the original proposal because no physical costs associated with arming itself had been identified;
- It was also noted that the proposal introduced a different payment for Category 2 and Category 4 intertrips and this would need to be reflected in the legal drafting.
- It was suggested that Category 4 intertripping schemes did not warrant an extra capability payment as the main benefit of such a scheme is for the generator who is cleanly disconnected from the system following a fault.
- It was noted that the justification for the arming fee was unclear and the proposer subsequently added the following justification:
    - In order to secure 500MW of reserve energy cover the generator would require (for example) 10 x 500MW stations to run at 450MW. This results in a loss of efficiency at each of the generators. Assuming that the efficiency of running these generators is reduced from 37.00% to 36.90% and that the cost of power is £25/MWh.

    - The cost in lost efficiency of providing reserve would therefore be:
    - £25 x (1-36.90/37.00) x 450MWh x10 = £304/hour ie. approx £150 per half hour.
    - In coming up with this proposal, it was the view of the proposer of the alternative that the arming fees paid would be about the same per year for Categories 2 and 4. In the proposal the figure was based on one week of arming.

Working Group Assessment against the CUSC Applicable Objectives

5.15 The Working Group discussed this WGAA and considered whether it better facilitated the Applicable CUSC Objectives. On efficiency grounds the Working Group felt that this Alternative would expose National Grid to the cost of arming, allowing it to make efficient, economic decisions. The Group also felt that the inclusion of an administered mechanism maintained within the CUSC would support efficiency arguments. Competition objectives would also be supported with Generators receiving a cost-reflective payment when armed. It was felt that this approach also provided for a transparent process. However it was unclear that this arming fee was cost reflective.

5.16 Arguments against the Applicable Objectives for this Alternative were indicated that efficient solutions can not be derived from administered mechanisms where individual generator's costs vary. It was also felt that from the competition angle it is not clear exactly what costs are being covered in the arming fee.

WGAA C – CAP076 + Post Event compensation for physical plant damage losses

5.17 WGAA C proposes that in addition to CAP076 a post event mechanism for a claim to be submitted by a generator for any plant damage incurred as a result of a trip should also be available. The proposal is described below:

5.18 This alternative proposes the additional feature of the tripped generator being able, under certain circumstances to claim for resultant physical damage to plant arising directly from the trip. In all other respects this alternative is the same as the main amendment proposal.

Rationale for the Alternative

5.19 The CAP076 proposal excludes the possibility of claims for plant damage because 'all power stations have to be designed to tolerate the onerous possibility of full load rejection for certain extreme events…' CAP076 proposal also recognises that '…National Grid has experienced reluctance from Generators to arm their Schemes.' This alternative seeks to overcome this reluctance by ensuring individual generators are protected from damages arising from firing an intertrip whilst avoiding unnecessary additional costs.

Balance of Risk and Reward

5.20 CAP076 covers mandatory intertrips. Those generators affected will have no choice regarding the installation and arming (and hence firing) of the intertrip. The presence of the intertrip allows National Grid to achieve its licence obligation 'to permit the development, maintenance and operation of an efficient, co-ordinated and economical system for the transmission of electricity;' at a lower cost than would otherwise be necessary. This benefit flows to all users of the transmission system and hence to customers. However, the risk of plant damage arising from the trip rests with the individual tripped generator. To impose an additional risk on the generator for the greater good, without some means of managing and mitigating the risk is an unduly discriminatory way to achieve this greater good.

5.21 This situation is in contrast to commercial intertrips. Here the generator can come to a commercial assessment of the risks and benefits available to it from entering into an intertrip contract and freely decide whether the balance is appropriate for itself.

Risk Management

5.22 A prudent generator will already have in place management systems to ensure:

- The plant has been designed, constructed, commissioned and is maintained and operated in compliance with industry codes and health and safety legislation; and
- Appropriate risk mitigation products (such as insurance) are in place to cover plant damage and consequences of plant damage.

5.23 Nevertheless, during the assessment of this amendment it became clear from discussions between generators and insurance providers that some insurers would consider intertrips to be an additional risk, ' a notifiable event', whilst all would still apply excesses and deductibles to any cover they gave.

5.24 It has been suggested (by those who would not have to deal with the consequences of plant damage) that the additional risk is nugatory and that no specific provision needs to be made for it. It should be noted that part of the rationale for changing the current arrangements is to address the reluctance from generators to arm schemes. If the risk is trivial, then those who benefit from the intertrip should have no problem in agreeing to reasonable measures to mitigate the risk.

Principles of a Post Event Claim System

5.25 In allowing any claim against damages arising from an intertrip, the following principles are proposed:

- Any claim would be limited to resultant physical damage to plant arising directly from the trip;
- Intention to claim will have to be registered within a limited period after the event (say, 30 business days);
- Claims will have to be registered within a limited period after the event (say, 75 business days);
- Judgements will be binding and will be made within a limited period (say, 60 business days);
- The burden of proof that the generator has incurred additional costs arising directly from the firing of the intertrip should lie on the generator affected;
- The standard of judgement should be that of prudent operator;
- The generator must be able to demonstrate that they have in place technical and managerial systems that are fit for purpose and consistent with international benchmarks;
- The generator will be expected to have taken reasonable measures to manage and mitigate financial risks arising by, for example insurance;
- Claims will be for amounts net of other payments, such as insurance;
- Difference must be drawn between replacement costs and betterment, the latter being excluded;
- The judgement of the claim will be by a small group (maximum 3 people) appointed by the chairman of the CUSC panel to include people who are independent and collectively have expertise in commercial and technical assessment of power generation and transmission, risk management and commercial law.

Practical Measures

5.26 The Claims committee will be established as a standing group of the CUSC Panel. The principles underpinning its establishment and operation (as set out above) will be contained in the CUSC. The individual terms of reference for assessing a claim shall be agreed by the CUSC Panel. The details of the group will closely follow the approach to standing groups in the CUSC.

Working Group Assessment against the CUSC Applicable Objectives

5.27 The Working Group discussed this Alternative against the CUSC Applicable Objectives. Arguments in support of efficiency are based on the principle that claims are only allowed for physical damage directly resulting from the trip. In addition supporting the arguments for competition generators are left on an equal footing with respect to the quality of access they are provided to the transmission system.

5.28 The arguments against the Applicable Objectives for this Alternative are based on the view that on efficiency grounds good industry practice determines that generators should have insured themselves against post-trip damage, and this option does not allow for the recovery of costs of insurance. In addition it was noted that in general, consequential loss claims have not been allowed in the industry.

WGAA D – CAP076 +Payment of an arming fee and enhanced capability fee (CUSC administered + Post Event compensation for physical plant damage losses)

5.29 The Working Group agreed to put forward a further WGAA based on a combination of the original proposal and two of the alternative options for arming fee/enhanced capability fee and Post Event compensation for physical damage losses.

5.30 This WGAA D was the overall preference of the majority of the CAP076 Working Group.

Working Group Assessment against the CUSC Applicable Objectives

5.31 The Working Group discussed this Working Group Alternative Amendment and considered whether it better facilitated the Applicable CUSC Objectives. On efficiency grounds the Working Group felt that this Alternative would expose National Grid to the cost of arming, allowing it to make efficient, economic decisions. The Group also felt that the inclusion of an administered mechanism maintained within the CUSC would support efficiency arguments. Competition objectives would also be supported with Generators receiving a cost-reflective payment when armed. It was felt that this approach also provided for a transparent process.

5.32 Arguments in support of efficiency are based on the principle that claims are only allowed for physical damage directly resulting from the trip. In addition supporting the arguments for competition generators are left on an equal footing with respect to the quality of access they are provided to the transmission system.

5.33 Arguments against the Applicable Objectives for this Alternative were indicated that efficient solutions can not be derived from administered mechanisms

where individual generator's costs vary. It was also felt that from the competition angle it is not clear exactly what costs are being covered in the arming fee.

5.34 Additional arguments against the Applicable Objectives for this Alternative are based on the view that on efficiency grounds good industry practice determines that generators should have insured themselves against post-trip damage, and this option does not allow for the recovery of costs of insurance. In addition it was noted that In general, consequential loss claims have not been allowed in the industry.

6.0 IMPLEMENTATION AND TIMESCALES

6.1 National Grid recommends that CAP076 or any of the WGAAs should be implemented 25 business days after an Authority decision.

6.2 In order to successfully implement the overall package of proposals across different industry Governance areas, any decision, and subsequent implementation will need to be co-ordinated. The respective code documentation that has been presented to Ofgem has been put together with this in mind.

7.0 IMPACT ON THE CUSC

7.1 National Grid developed and presented legal drafting to support CAP076 to the Working Group. During the Working Group consideration several comments were made which have been incorporated as appropriate. Similarly National Grid developed and the Working Group discussed the legal drafting to support each of the WGAAs. The legal drafting is presented in Annexes (provided separately to the report).

7.2 Early in the consultation process a minor error was identified in the legal text provided for the original proposal and the four WGAAs. The required changes were discussed with the Authority and amended text was notified to consultees. This revised version of the text has been reflected in the legal drafting provided.

8.0 IMPACT ON CUSC PARTIES

8.1 CAP076 is intended to apply prospectively and would be applied to any new connection application received. However, for parties with an existing Intertrip scheme which is outlined in Appendix F3 of their Bilateral Connection Agreements the proposed amendment would alter the remuneration mechanism should the party agree to the required changes to the BCA. Should the amendment be approved then National Grid would seek to raise modifications to Appendix F3 for existing providers in order to align them with the new CUSC terms.

8.2 We are in the process of communicating to all current intertrip providers with a proposal to for changes to F3 in line with CAP076 proposals such that they will be able to modify in line with the proposal.

9.0 IMPACT ON CORE INDUSTRY DOCUMENTS

Impact on other industry codes

9.1 In order to achieve the proposer's overall objectives in relation to intertrips, changes are required to other industry documents. These are briefly outlined below. Whilst CAP076 (and indeed all the other changes in other governance areas) have been considered on their own merits, it is worth noting the proposals in other areas.

Grid Code

9.2 The associated proposed Grid Code changes aim to clarify notifications and instructions, clarify the Connection Conditions and introduce consequential text changes required as a result of new CUSC payment mechanisms.

9.3 There was a view in the CUSC Working Group that, as the Categories described above are of a technical nature, they should be defined in the Grid Code rather than the CUSC. Working Group members agreed that, rather than present a further suite of Alternative CUSC Amendments, this option would be considered as an alternative in the Grid Code consultation. Therefore alternative Grid Code text has been developed to support this option. Should this approach be adopted National Grid will raise a subsequent amendment to the CUSC to remove any duplicate definitions.

9.4 A Grid Code consultation was issued on 19 January 2005 with the deadline for responses being 16 February 2005. The final report is likely to be issued to the Authority in the week commencing 7 March 2005.

BSC

9.5 BSC Modification P177 (Removal of intertrip provisions from the BSC) proposes that the current requirement to treat the operation of an intertrip as a Bid/Offer Acceptance is removed. The final Modification Report was submitted to the Authority for decision on 10 February 2005. Further information on the status of this modification is available at:

http://www.elexon.co.uk/ChangeImplementation/modificationprocess/modificationdocumentation/modProposalView.aspx?propID=191

9.6 BSC Modification P175 Development of provisions related to certain Bid Offer acceptances issued pursuant to the Grid Code (eg. BC2.9 and 2.10) and proposes an alternative treatment of intertrips based on cost claims under the BSC. The final report was sent to the Authority for decision on 19 January 2005. Further information on the status of this modification is available at:

http://www.elexon.co.uk/ChangeImplementation/modificationprocess/modificationdocumentation/modProposalView.aspx?propID=189

Standard Licence Condition C16 Statements

9.7 A consultation on the Standard Licence Condition C16 changes required for CAP076 was issued on 19 January 2005. The deadline for consultation response was 18 February 2005. An indication of the proposed changes is outlined below.

Procurement Guidelines

9.8 Changes are required to the Procurement Guidelines to:

- reflect the formal identification of System to Generator Operational Intertripping Schemes as Part 2 System Ancillary Services and;

- highlight the fact that some generators will be required to provide the service as part of a condition of connection

Applicable Balancing Services Volume Data (ABSVD)

9.9 ABSVD is the mechanism by which volume can be transferred from the energy account of the Service Provider to the Energy Account of the Transmission Company. In relation to intertrips, this is intended to ensure that the imbalance position of the generator following the operation of an intertrip will not be adversely affected. Two options relating to the length of time for which intertripped volume will be treated under the ABSVD methodology have been covered by the consultation.

Balancing Services Adjustment Data (BSAD)

9.10 It is proposed that the volume associated with the operation of an Intertrip will be included in the calculation of BSAD variables SBVA and SSVA (System Buy Volume Adjustment and System Sell Volume Adjustment). This will ensure that the intertrip volume is appropriately represented in the calculation of the Net Imbalance Volume (NIV) for imbalance price setting purposes. The exact mechanism depends upon the length of time covered by ABSVD.

10.0 VIEWS AND REPRESENTATIONS

10.1 This Section contains a summary of the views and representations made by respondents' consultation period in respect of the Proposed Amendment and the Alternative Amendments and National Grid's response to these comments where views are not already expressed in other sections of this document.

10.2 A total of eleven responses were received to the consultation. Of the comments raised no additional alternative amendments were raised as a resulting from the consultation.

Responses to Consultation

10.3 The following table provides an overview of the representations received. Copies of the representations are attached as Annex 3.

10.4 The majority of respondents felt that both CAP076 original and all the WGAAs better facilitated the CUSC Applicable Objectives. The table below outlines the respondents support for the options presented in the consultation.

Reference	Company	Comments/Support
CAP076 – CR–01	RWE	Does not support CAP076 or any of the WGAAs
CAP076 – CR-02	EdF Trading	Supports CAP076 and in particular WGAA D
CAP076 – CR–03	British Energy	Supports WGAA D
CAP076 – CR–04	EdF Energy	CAP076 and all the WGAAs better achieve Applicable CUSC Objectives but overall Support WGAA D
CAP076 – CR–05	EoN	Broadly Supportive of CAP076 WGAA D most equitable and efficient
CAP076 – CR-06	First Hydro Company	Supportive of WGAA B
CAP076 – CR-07	Centrica	Supportive of WGAA D
CAP076 – CR-08	Scottish & Southern **	Does not support CAP076 and changes are not required.
CAP076 – CR-09	Teeside Power Limited **	Generally agrees with principles outlined in CAP076. Supportive of WGAA D
CAP076 – CR-10	*Association of Electricity Producers**	Made specific comments on Category 1
CAP076 – CR-11	*British Wind Association**	Made specific comments on Category 1

* Identical responses
** Late responses

Industry Debate on the Raising of CAP076

10.5 One respondent expressed disappointment that National Grid raised CAP076 without the wider views of the industry being first fully considered. It is National Grid's view that the issue of intertrips has been debated extensively within the industry over a number of years through the different governance processes of the BSC and the Grid Code, and it believes that the CUSC governance framework has been used in an appropriate and timely manner in raising CAP076. Furthermore, the fact that the Working Group (and indeed the majority of consultation responses) was generally supportive of the overall framework for intertrips proposed by CAP076, suggests that the industry was

broadly comfortable with the proposal, believing that it built upon, and developed previous discussions.

Reluctance to Arm Intertrips/Plant Damage

10.6 A number of respondents outlined a view that the current reluctance to arm intertrip schemes was driven by the risk of significant plant damage and consequential costs arising from a trip. These respondents expressed a view that a party should be held neutral to any additional/consequential costs incurred as a result of the operation of an intertrip scheme. One party made the point that although there has been a low incidence of intertrips operating since NETA Go-Live, the consequence to the Generator of an intertrip firing were potentially very significant. It therefore believed that an ability to seek compensation for such consequences should be provided.

10.7 One party disagreed with the view that payment following a trip should include a claim for physical damage. This respondent felt that an approach that allowed an intertripped party to claim for consequential plant damage would create an insurance pool where generators with resilient plant and prudent operation would be providing cover for less resilient plant.

10.8 National Grid believes that CAP076 will improve the current arrangements for treatment of intertrips by providing clarity on categories and introducing remuneration at a level that is appropriate for both the generator providing the service and the industry community that pays for it. National Grid continues to believe that the incremental risks associated with the arming of an intertrip should be covered by the generator.

Use of an Arming Fee

10.9 A number of respondents stated that an arming fee should be used. One respondent highlighted specific actions (and hence costs) that would be undertaken and incurred during a period of arming. One respondent stated that a plant is effectively on “increased risk of trip” when the intertrip is armed and is therefore receiving a poorer level of access to the system.

10.10 National Grid notes this view and notes that three of the WGAAs provide for arming fees to be paid. National Grid’s views on the use of arming fees are contained in Section 12. National Grid continues to be of the view that as the times that an intertrip can be armed under CAP 076 is pre-determined, an arming fee is not required to incentivise National Grid on their efficient use.

Tripping Fee

10.11 One respondent stated it was not clear what fee would be payable to CCGTs. The legal drafting provides for the payment to be made per generating unit affected, so this would apply to individual units within a CCGT module. One respondent agreed that the fee covers the appropriate costs and represents a reasonable estimate of the costs considered. Although it noted that the fee proposed does not take account of plant damage or any other consequential loss.

Generator Risk Exposure

10.12 In justifying their view that generators should be compensated for plant damage, three respondents argued that the arming of an intertrip represented a step increase in the risk of plant damage. It is National Grid's view that a generator faces risk in its day to day operation and that the increased risk faced when an intertrip is armed is very small when compared to the 'standard' operating risks. National Grid believes that the current arrangements whereby a generator may seek to cover this risk in setting its bid price is inefficient, as if an intertrip fired and no consequential costs were incurred by the generator, they would still be paid as if the risks covered by the bid price had occurred. National Grid believes that it is inappropriate for the rest of the industry to provide an intertripped generator with a windfall payment in this way.

10.13 National Grid believes that it is inappropriate for the rest of the industry to provide an intertripped generator with, what is the potential to be a windfall bid payment (up to many millions of pounds) in this way. Based on historic system statistics, the chance of a full load rejection for any one Generator, as a result of an intertrip armed for Category 2 reasons, is of the order one every 500 years. The chance of a Generator being subjected to a full load rejection, based on National Grid's knowledge of Generator trips, as a result of "normal" operation (bar faults, protection, CB faults etc) is of the order one every 40 years.

10.14 CAP76 recognises that at a Category 4 site, by the nature of the connection, a Generator will experience a full load rejection for a credible double circuit fault regardless of whether an intertrip is installed or not. The installation, and subsequent operation of an intertrip, rather than letting the Generator overspeed, must generally be of benefit to the generator. Category 4 type connections do not currently receive any payments for these permanently armed intertrips. Under CAP076 generators with Category 4 intertrips will receive payment for these connections if an intertrip is armed and subsequently operates.

10.15 One respondent finds it difficult to reconcile the fact that no intertrips have operated since NETA Go-Live with the creation of Category 1 and Category 3. National Grid included Category 1 and 3 to ensure complete coverage of this mandatory type of intertrip but it is clear in legal drafting that these categories will only be invoked at the behest of the generator.

Imbalance Price Distortion

10.16 Some support was received for the view that under existing arrangements imbalance prices could be distorted following the operation of an intertrip. One respondent did not accept this view arguing that large negative bid prices submitted by generators with armed intertrips reflected the economic risk faced should the intertrip fire. National Grid notes the general industry concern arising from the Emergency Instruction issued to Damhead Creek on 19 May 2005, and its subsequent impact on imbalance prices. It is National Grid's view that, in this instance, and in any potential instance of an intertrip operating, there is the potential for a system based balancing action to distort energy imbalance prices. Furthermore, experience and comments from industry parties has confirmed the fact that some generators submit high negative Bid Prices as an indication of their reluctance to be moved by the SO for Energy Balancing purposes. In these instances, it is National Grid's view that the high negative prices do not reflect the economic remuneration required

should they need to be moved for system reasons where no other option is available.

Pay As Bid

10.17 One respondent states its preference that intertrips should be treated via the BSC, paid as bid but not fed into the imbalance price calculation. It notes that the content of the P87 decision letter appears to remove this as a viable solution. A further respondent states that CAP076 removes the "pay-as-bid" philosophy that it believes to be the cornerstone of the NETA (and BETTA) market. However another respondent states that removing the deemed bid acceptances reduces uncertainty for both the generator concerned and the market. National Grid believes that pay-as-bid is appropriate in market situations where competition exists. The circumstances envisaged in CAP076 do not exhibit this characteristic so National Grid believes that the CAP076 administered mechanism is fully appropriate.

Grid Code Definitions

10.18 Several respondents expressed the view that the technical definitions associated with intertrips would be addressed more appropriately via the Grid Code. National Grid has developed a suite of proposals across different governance areas that will allow this to be achieved if it is deemed to be appropriate.

Categories of Intertrip

10.19 One respondent expressed the view that the attempt to classify intertrip schemes as set out in CAP076 is incomplete, complex and confusing in comparison to the existing arrangements, but did not provide any further justification of this view. National Grid notes that the categories of intertrips were discussed and developed at length in the Working Group (at which the respondent was actively represented) and all the WGAAs contain exactly the same definition of categories reflecting the general agreement that was gained there.

10.20 One respondent supported the proposed categories of intertrip as it believed that they provide a reasonable categorisation and should help to clarify the different types of System to Generator Intertrips, therefore providing greater transparency.

Category 1

10.21 One respondent was concerned that no compensation is proposed for Category 1. Category 1 is a generator requested connection arrangement (a variation to design) which may only be agreed on the basis that no other customer is affected either by way of investment or operational costs or by a reduction in security standards. It is for this reason that no compensation can be made for Category 1.

10.22 One respondent expressed a concern that the introduction of Category 1 will result in generators being forced to accept second rate connections. National Grid would wish to clarify that CAP076 does not change the technical requirements, considerations or processes that are undertaken when the need for any intertrip is considered. This is not only true for categories 2, 3 and 4 but equally Category 1. The Category 1 intertrip is an intertrip that is required to fulfil a generator request to have a design variation to their connection

design as described in section 2 of the SQSS (for example to facilitate an earlier connection). The introduction of the definition into the CUSC will not change the treatment of these intertrips and is included to ensure clarity and transparency. In the circumstances where a current connection arrangement was subject to a design variation that required an intertrip the current compensation arrangements would be specifically excluded within the terms of the connection offer in order to align with the design variation criteria (no other customer affect). There would be no change to access requirements and no change to intertrip requirement or application should CAP076 be implemented.

Category 2

10.23 One respondent supports the principle of Category 2 intertrips provided it is adopted in conjunction with one of the WGAAs.

Category 3

10.24 One respondent stated a preference to see Category 3 removed from the proposals, and believed there may be a way to place an incentive on third party systems (possibly via exposing the Distribution Network Operating to imbalance).

10.25 With respect to Category 3, again this does not reflect any change to design specifications or requirements the intention is to capture the circumstance where a generator has come to an arrangement with a third party to resolve a third party reinforcement requirement by the use of an intertrip. This requirement as with category one would eventuate from a generator request and would only be incorporated into a connection design were there no implications to the Transmission System.

Category 4

10.26 One respondent understood the rational behind this category and would support it providing it was introduced with one of the WGAAs.

10.27 National Grid continues to believe that four categories of intertrip defined in CAP076 and all four WGAAs are appropriate.

Commercial Intertrips

10.28 One respondent stated that it does not understand the rationale for not including all types of intertrip schemes within the proposed arrangements for CAP076. National Grid explained the reasoning behind the scope of CAP076 at length in the Working Group. CAP076 proposes categorisation and remuneration for those intertrips that are required to ensure safe, secure, economic and efficient operation of the transmission system in line with the SQSS and good industry practice. These are deemed to be mandatory intertrips where there is no choice regarding whether to install an intertrip, and where there is no choice of provider. CAP076 is designed to address arrangements for these types of intertrips. It is National Grid's view that administered arrangements as envisaged by CAP076 would not be appropriate for commercial intertrips where a choice of provider or alternative courses of action are available. Commercial intertrips were specifically excluded from the proposal, as in these cases National Grid has alternative courses of action and an appropriate economic test exists to allow for the development of a bilaterally agreed contract.

Engineering Assessment/Basis for Intertrip Schemes

10.29 One respondent stated that its greatest concern is the absence of any technical or engineering risk assessment of intertrip schemes. Again, this point was debated at length in the Working Group and National Grid has considered it very carefully. National Grid remains strongly of the view that the categorisation of intertrips (which defines the remuneration) coupled with the site specific details that will be contained within the generator's BCA are sufficient to provide the detail that is required. The fact that the technical intertrip requirements will depend upon the circumstances at a given site, means that the site-specific bilateral connection agreement is the relevant place to specify such requirements. As part of all connection negotiations National Grid will always seek to achieve a solution that provides the least onerous solution for both National Grid and the connecting party. It is not felt necessary to formalise this point with specific reference to intertrips. Moreover National Grid does not agree that there is any further generic technical detail that could be usefully included in an industry document. National Grid notes several comments about the technical nature of the definitions and note the option that these should be included as part of the Grid Code.

Bilateral Contracting/Commercial Contracts

10.30 One respondent suggested its preferred solution would be for all intertrips to be subject to bilateral arrangements agreed between the generator and National Grid. National Grid does not agree that this would represent an improvement over the current arrangements. For the mandatory intertrips envisaged by CAP076, there is only one potential provider of the specific service, and there would be no room for competition to develop to ensure that bilateral contracts could be agreed at an efficient price. For these intertrips there is not an 'economic choice' that can be taken e.g. a Category 2 intertrip has to be armed to allow access to circuits for maintenance purposes. The only alternative would be to pre-fault constrain the same generator during the outage period which would be inefficient and would leave National Grid as a distressed purchaser from a monopoly provider. National Grid continues to be sceptical (on the basis of previous discussions and the level of bid prices submitted when schemes have been armed) that it would be possible to reach acceptable conclusions to bilateral negotiations on mandatory intertrips so as not to present unacceptably high costs through to the industry. For the intertrips envisaged by CAP076, there is no concept of an economic test, as viable alternatives to the intertrip do not exist. Furthermore, we do not believe that there is any discriminatory treatment, and remain of the view that CAP076 provides a clear and transparent mechanism under the CUSC, which is applied to all generator providers of the service.

Efficient Use of Intertrip Schemes

10.31 A number of respondents stated that CAP076 could result in the inefficient use of intertrips schemes, make them more accessible to National Grid, and result in more frequent use. National Grid strongly refutes this claim. Category 1 and 3 intertrips are only installed at the request of the generator and can not be installed at the behest of National Grid. Category 4 intertrips are armed continuously. Category 2 intertrips are only able to be armed in specific transmission outage conditions that will be clearly defined within the BCA. There is no suggestion that System to Generator Operational Intertrips will be used in any other circumstance. If there were a requirement for an intertrip to

be used, other than in the circumstances allowed under the proposed categories, then commercial discussions would be initiated with the generator.

10.32 Any Connection Offer made by National Grid is subject to rigorous engineering assessment and based on an insurance that this offer is made in accordance with the SQSS. In the development of any connection offer the inclusion of an intertrip arrangement is one of the many options that may be proposed by National Grid and a range of other facilities will be considered in addition to and indeed over and above the inclusion of an intertrip.

10.33 A number of respondents highlighted the need for greater co-ordination of outage planning between National Grid and Generators to mitigate the need for intertrips to be armed. This issue has been addressed as part of the associated Grid Code Consultation which clarifies the requirements for notifying generators with Category 2 intertrips of arming requirements within normal planning timescales.

10.34 One respondent stated that it favours alternatives which place incentives on National Grid to minimise periods when intertrips are armed. This is not a relevant consideration for the categories of intertrips proposed by CAP076 which, as explained above are only armed under specific, pre-defined, circumstances.

10.35 One of the drivers for the introduction of an arming fee as proposed under WGAA B (and D) was that such a requirement would incentivise National Grid to minimise the extent that it required intertrips to be armed. National Grid notes that, in the majority of circumstances, an arming fee would make no difference to the duration or frequency of armed periods. Outages required for maintenance are already carried out efficiently.

Other Issues

Interconnectors

10.36 One respondent expressed the view that they would have liked debate to also be focussed on the treatment of interconnectors. The respondent indicated that they would not wish this aspect to hold up consideration of CAP076 but would hope that the issue is addressed as soon as possible once it is known which methodology is to be adopted. In Working Group discussions it was confirmed that CAP076 was not intended to cover any intertripping schemes other than System to Generator and System to CCGT Module intertripping schemes. This means that any System to Interconnector intertripping schemes are not covered by these proposals for remuneration or categorisation.

10.37 National Grid notes that System to Interconnector intertrips are different in nature to System to Generator intertrips. The primary reasons include:

- in the case of demand and exports to an external system over an interconnector, the physical effect is essentially contrary to that of an intertrip of generation; and
- an intertrip of demand or an interconnector would affect a number of end users; thus, there is a different operational and contractual framework within which it is required to operate.

10.38 However, National Grid notes the comments made by this respondent and believes that, if approved, CAP076 may provide a framework for discussions relating to other types of intertrips going forward.

Scotland

10.39 Two respondents raised comments that there had been limited consideration of how CAP076 would affect Scottish Parties. One of these parties questioned whether a separate consultation would be issued to focus on GB arrangements. The designated GB CUSC came into effect from 8 September 2004 and as such any proposals consulted on after this date have applied to Scotland as well as England and Wales. Working Groups have been open for participation to all GB participants and in addition any issues of specific relevance to Scottish parties could have been raised within these fora or via consultation.

10.40 From BETTA Go-Live the treatment of Scottish parties will be the same as parties in England and Wales irrespective of the outcome of the decision on CAP076.

TO-SO Code

10.41 One respondent highlighted comments from the consultation report which referred to the interaction between the TO and SO roles after BETTA Go-Live.

10.42 Paragraph 7.3 of the consultation document is phrased in the context of operational intertrips that fall into one of the four categories proposed by CAP076 i.e. those that may be installed due to requirements in the SQSS, through customer choice etc, and not those which are installed purely on commercial grounds (which as has been stated throughout the assessment of CAP076 would remain subject to a Commercial Intertrip Agreement). The purpose of the paragraph is therefore to state National Grid's belief that where National Grid would be paying Capability or Tripping fees (or if a WGAA were approved Arming Fees), where such Intertrips solely contribute to the operation of a Scottish TO's transmission system such costs should not be borne by National Grid.

Ongoing consultations

10.43 A number of respondents made comments relating to issues covering consultations in other areas (most notably imbalance exposure via ABSVD). These comments are covered in the relevant report on the specific governance area.

Working Group Alternative Amendments

10.44 A number of respondents expressed their views on the WGAAS. No Consultation Alternatives were raised. Comments raised are summarised below. National Grid's views on each of the WGAAs are contained in Section12 of the report.

WGAA A

10.45 One respondent stated that this alternative provides for the risk of consequential costs to be independently valued. A number of respondents stated that the process of obtaining insurance could be onerous and that WGAA A lacks transparency. One respondent noted a concern that significant expense would be incurred upfront despite the likelihood of a trip being low.

10.46 One respondent states that the process of agreeing a bilateral arming fee would not be any more of a complicating factor than any other bilateral agreements in place between National Grid and generators.

WGAA B

10.47 One respondent stated that whilst this alternative incentivises National Grid to minimise the utilisation of intertrip schemes it was concerned that the level of payment would be inadequate to address the risk of consequential damage. One respondent states that WGAA B provides a more complete recognition of the costs and risks faced by generators when their intertrip is armed. One respondent noted its support for the implementation of this option.

WGAA C

10.48 One respondent stated that it did not support this alternative as the absence of an arming fee fails to incentivise National Grid (as per WGAA B) and that the vagaries of post-event compensation and the interaction with the generators insurance would be unlikely to sufficiently incentivise the generator to arm the scheme.

10.49 One respondent states that this alternative would address the risk of plant damage occurring if an intertrip operates and would require a generator to have acted prudently in having in place appropriate risk mitigation products such as insurance.

10.50 One respondent states that compensation would be net of any insurance payment received by the generator.

WGAA D

10.51 A number of respondents favoured Alternative D in preference to the other three WGAAs. However, one respondent noted that it did not believe that any of the WGAAS better facilitated the Applicable CUSC Objectives.

10.52 One respondent stated that WGAA D allows for the economic test (at the time of new connections) to be made along with factoring in expected utilisation per annum with the administered pricing. It also stated that WGAA D provides an incentive to consider alternatives to arming a Category 2 intertrip in planning timescales and provides a mechanism for a generator to seek redress for plant damage. One respondent believed that this is the only one of the proposals that addresses the full range of costs and risks associated with the use of system to generator intertrip schemes. One respondent believes this option will encourage and incentivise National Grid to align transmission system outages with generator planned outages.

11.0 SUMMARY OF PANEL MEMBERS VIEWS

11.1 No responses to the consultation were received from Panel Members acting in that capacity.

12.0 NATIONAL GRID RECOMMENDATION

12.1 As proposer of CAP076, National Grid continues to support it. The views expressed in this section are derived from National Grid's thinking in developing CAP076 in the first place, from an active role in the Working Group process and following the consideration of responses from industry consultees.

CAP076 Original Proposal

12.2 National Grid proposed CAP076 and considers the Amendment to be a valid approach to addressing the defect identified. National Grid's views on how CAP076 better facilitates the applicable CUSC objectives are contained within section 4.

Working Group Alternative Amendment A

12.3 An arming fee did not feature as part of the original Amendment Proposal, as it was not clear to National Grid that any costs were being incurred as a direct result of arming the intertrip. Additionally, the categorisation, and the detailed content of the BCA will make it clear under which circumstances the intertrip would be armed.

12.4 It has been argued that the inclusion of an arming fee would allow National Grid to make an economic assessment of whether to arm an intertrip. In the circumstances envisaged by the four Categories of intertrip contained within CAP076, there is no economic assessment to be done, as the event of arming is an inherent part of the design of the transmission system and will be mandated by the details within the BCA. The only alternative is for the generator to be restricted in output during the relevant period.

12.5 This WGAA A consists of the payment of an arming fee based on an insurance premium obtained by the Generator. The insurance is against 'Consequential Intertrip Costs' which are incurred as a direct result of the operation of an intertrip including physical damage and a reasonable estimate of lost opportunity costs whilst repairs are carried out.

12.6 National Grid does not believe it is appropriate to pay a Generator an arming fee based on these costs. Generating units are designed to withstand full load rejection and face this risk in the normal day to day operation of the transmission system. Additionally there is no precedent within the industry for covering any lost opportunity costs.

12.7 The tripping fee contained within the original amendment proposal is designed to cover the costs (such as wear and tear) that are incurred when an intertrip operates. It is not clear to National Grid what other costs are incurred by a generator for arming the intertrip.

12.8 National Grid also believes that it is not appropriate for the industry (via BSUoS) to effectively provide the insurance for a generator against the risk of plant damage.

12.9 As this WGAA contains the requirement to bilaterally agree an arming fee, National Grid is concerned that there may be circumstances where such agreement could not be reached. It is not clear what would happen in these circumstances. Furthermore, the payment of a bilateral arming fee could lead

to non-transparent and non-reflective costs being passed through to the industry.

Working Group Alternative Amendment B

12.10 Whilst WGAA B maintains the principle enshrined within CAP076 of administered payments within the CUSC, it is not clear to National Grid exactly what costs are being covered, and as such, why £50k per week is an appropriate figure. The proposer of this WGAA suggested that the fee would cover the costs incurred by the generator for holding extra reserve against the risk that an intertrip operates. It is unclear to National Grid why this level of reserve should be increase over and above the normal levels held by a generator against the normal risk of trip.

Working Group Alternative Amendment C

12.11 This WGAA C contains provisions for a post event claim process for compensation for any plant damage incurred as a direct result of the operation of an intertrip.

12.12 Whilst we believe that this alternative has some merit over and above WGAA A (where an insurance based fee is paid upfront and additionally covers lost opportunity costs), National Grid does not consider it appropriate to effectively insure a generator against any plant damage incurred as a result of the operation of an intertrip as this should already be mitigated by the generator as part of his normal operation.

Working Group Alternative Amendment D

12.13 National Grid's views on the elements of Alternative Amendment D which are:

- an arming fee,
- alternative administered payments process, and
- the post event claims process

are all detailed in the paragraphs above.

12.14 However, National Grid notes that the majority of respondents support WGAA D. It is National Grid's view that if an administered arming fee and post event claims process were deemed to be appropriate then WGAA D would deliver this requirement.

13.0 COMMENTS ON DRAFT AMENDMENT REPORT

13.1 National Grid received one response following the publication of the draft Amendment Report.

Reference	Company	Summary of Comments
CAP076-AR-01	EoN	Paragraphs 10.15 and 10.31 replace "…bequest…" with "behest"

Annex 1 - Amendment Proposal Form

CUSC Amendment Proposal Form	**CAP: 76**

Title of Amendment Proposal:

Treatment of System to Generator Intertripping Schemes

Description of the Proposed Amendment **(mandatory by proposer)***:*

The current framework for a System to Generator Intertripping Scheme ("A Scheme") fails to facilitate clarity of obligations between NGC and the associated Generator with respect to the arming and operation of the Scheme. Furthermore, there is a significant risk that the operation of a Scheme could have an adverse impact upon the Industry by virtue of the large cash flows that could be created.

This proposal seeks to address the above shortcomings by proposing to treat a Scheme as an Ancillary Service and covers categorisation, remuneration and obligations relating to a Scheme. The main elements of the proposal are described below:

Categorisation of System to Generator Intertrips
This proposal seeks to define different categories of Schemes within the CUSC. The categories proposed are as follows:

Category 1:
A System to Generator Intertripping Scheme arising from a Variation to Connection Design consistent with the criteria specified in the Security and Quality of Supply Standard (SQSS) as established pursuant to Condition 12 of the Transmission Licence.

Category 2:
A System to Generator Intertripping Scheme required to alleviate an overload on a circuit, that connects the group containing the Generator to the rest of the System. The operation of the Scheme means any MW reduction from the Generator has exactly the same MW reduction on the circuits that connect the Generator to the rest of the System (when any system losses or third party system effects are ignored). The Scheme is installed in accordance with the requirements of the planning criteria of the SQSS for measures to be taken to permit maintenance access for each transmission circuit and for such measures to be economically justified.

Category 3.
A System to Generator Intertripping Scheme installed as an alternative to reinforcement of a third party system, where the Scheme removes overloads on the third party system e.g. DNO system. The Scheme is installed in accordance with paragraph 1.4 of the SQSS.

Category 4.
A System to Generator Intertripping Scheme installed at the request of NGC under circumstances when the Generator would be disconnected from the Transmission System and where the use of such schemes would be beneficial in order to facilitate the timely restoration of critical circuits.

Note, not covered in these four Categories is the situation where a Scheme is used to resolve general system issues (i.e. not locationally specific to the generator with the Scheme). This would be a commercial requirement and terms and remuneration for the Scheme would be subject to commercial arrangements.

Remuneration for categories of Intertrips

As a Category 1 Scheme relates to circumstances arising as a condition of a Variation to Connection Design, which, in accordance with the SQSS, must not result in additional costs to any other customer, it is not proposed that this category receives any remuneration.
In order to limit the provider's exposure to imbalance prices following operation of a Scheme, the service would be considered to be an Applicable Balancing Service and hence the volume tripped off (for up to 24 hours post trip) would be included within the Applicable Balancing Services Volume Data (ABSVD) for the above Categories 2,3 and 4.
For Categories 2,3 and 4 should NGC be unable to restore Transmission Capacity within 24 hours following the trip , the party with the affected Generating Unit(s) would receive an access rebate at a daily rate to remunerate the restriction on their access to the Transmission System (in accordance with the principles of CAP 48).
Additional administered payments to be made for Categories 2 and 4, which would be in the form of a capability fee and a tripping fee. These would be:
An annual capability fee (£/ annum) for the installation and right to arm the Scheme. This fee would cover administrative costs, training and overhead costs at the station, associated with the provision of the Scheme. The fee would also cover the costs of installing and maintaining the User's equipment for the Scheme within the station e.g. additional staff training, upkeep of policies and procedures together with technical maintenance of the intertrip.
As Generators are also exposed to a number of costs such as wear-and-tear following a trip, NGC believe it appropriate that this risk is covered by paying a tripping fee whenever such a Scheme operates (£/MW/Trip). However, as all power stations have to be designed to tolerate the onerous possibility of full load rejection for certain extreme events, this would specifically exclude consequential losses. It is envisaged that the actual details of the capability and tripping fees should be discussed and developed as part of the working group process.

Clarification of the framework and obligations for the above categories of intertrips
The categories outlined in (i) will all be treated as Ancillary Services, with the generic terms for categories 1-4 to be covered within the CUSC and site specific details contained within Appendix F3 of the Bilateral Connection Agreement (BCA). The generic terms within the CUSC would include:
Obligations on providers with respect to arming Schemes.
The ability for NGC to revise the Scheme arrangements within the BCA without being subject to the Modification process. This would be required following certain appropriate system changes e.g. changes to local routes to the User, TEC adjustments.
The remuneration mechanism including terms for access rebate, volume for inclusion within the ABSVD, and the administered Capability and Tripping fees for categories 2 and 4.
The provisions for arming Schemes will be detailed within the Grid Code.

Description of Issue or Defect that Proposed Amendment seeks to Address **(mandatory by proposer)*:***

The CUSC does not currently contain details regarding NGT's obligations with respect to the treatment of Schemes that are installed at the time of the connection of a generator. Compensation for operation of an Operational Intertrip is dealt with under the terms of the Grid Code (BC2.5.2.3) and BSC (Q 5.1.5), with the site specific details for arming and operation captured within Appendix F3 of the BCA of the generator. At present a Bid-Offer Acceptance is issued following the operation of a Scheme. This BOA continues until the end of that Balancing Mechanism window. This means the Generator is only covered for a maximum of 1½ hours. Due to the limited compensation window, NGC has experienced reluctance from Generators to arm their Schemes.

At present there is the possibility that Generators submit a large negative bid price when an Intertrip is armed. In the event that this Scheme operates this would have the potential to significantly distort imbalance prices, and also result in considerable cash flows around the industry. This is particularly inappropriate for what is entirely a system issue (namely a Transmission fault).

Furthermore, there is a lack of clarity regarding the categories of Schemes, and the consequent reason to install such Schemes at the time of connection.

Impact on the CUSC *(this should be given where possible)*:

Substantive CUSC changes to include:

CUSC Section 2:
Remove reference to Appendix F3 of the BCA from 2.9.3 (b) of the CUSC to be consistent with the circumstances now described in CUSC Section 4 where the requirement to raise a Modification Application in order to alter Appendix F3 will not apply.

CUSC Section 4: Balancing Services
Additional section under 4.2 (Other Balancing Services) outlining the generic contractual arrangement for the categories 2-4. To include:
Administered capability and tripping payments
Volume for inclusion within the ABSVD
Access rebate provisions
Revisions process for Appendix F3

CUSC Section 11: Interpretations and Definitions
Clarification on high level Operational Intertripping definition in relation to System to Generator Intertripping Schemes. Definitions for categories 1-4 of Schemes.

Impact on Core Industry Documentation *(this should be given where possible)*:

Changes are also required to the following industry documents to fully implement this overall proposal:

Grid Code (Removal of existing Intertrip remuneration mechanism and amendment to the scope of Commercial Ancillary Services to cover those set out in Section 4.2 of CUSC.)
BSC (Removal of Q5.1.5 and any references to it)
Procurement Guidelines
Applicable Balancing Services Volume Data Methodology Statement
Bilateral Connection Agreements: For Generators with an existing Intertrip scheme which is outlined in Appendix F3 of their BCA, the proposed amendment would alter the remuneration mechanism. Should the amendment be approved then NGC would seek to raise modifications to the Appendix F3 for existing providers in order to align them with the new CUSC terms.

Impact on Computer Systems and Processes used by CUSC Parties *(this should be given where possible)*:

NGC Ancillary Services Settlement Systems

Details of any Related Modifications to Other Industry Codes *(where known)*:

Consequential Grid Code, BSC and Transmission Licence AA4 document changes will be pursued in parallel to this proposal.

*Justification for Proposed Amendment with Reference to Applicable CUSC Objectives*** **(mandatory by proposer)*:***

As proposer of this modification NGC believes that the introduction of an improved framework for Schemes would better achieve the applicable CUSC objectives in the manner described below.

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

By removing the post-event Bid-Offer Acceptance from the Grid Code and introducing new terms for discrete categories of Schemes in the CUSC the Amendment Proposal would enable NGC to discharge its obligations under the Act and the licence more efficiently by:

Removing NGC and Industry exposure to the consequences of operation of a Scheme with an associated large negative bid price;
Clarifying the CUSC based contractual framework;
Clarifying the requirement to install certain categories of Schemes where required as a condition of connection for a Generator;
Better enabling accurate economic assessment for installation of Schemes as against transmission reinforcement at the time that applications are made for new connections;
Minimising exposure of Generators to imbalance prices following operation of a Scheme and thereby mitigating some of the current reluctance by generators to arm and use Schemes.

(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.

Providing an improved framework for the treatment of Schemes would facilitate effective competition in the generation and supply of electricity by:

Ensuring an enhanced level of market certainty with regard to processes, responsibilities and remuneration;
Clarifying obligations on Generators whose Schemes are a condition of connection;
Reducing the financial risks faced by Generators due to operation of Schemes;
Reducing the risks faced by the industry through distortion of imbalance prices.

Details of Proposer: Organisation's Name:	NGC
Capacity in which the Amendment is being proposed: (i.e. CUSC Party, BSC Party or "energywatch")	CUSC Party
Details of Proposer's Representative: Name: Organisation: Telephone Number: Email Address:	***Sarah Habib*** ***National Grid Transco*** ***01189 363705*** *sarah.habib@uk.ngrid.com*
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	Isabelle Haigh National Grid Transco 01926 653441 isabelle.haigh@ngtuk.com
Attachments (Yes/No):No **If Yes, Title and No. of pages of each Attachment:**	

Notes:

Those wishing to propose an Amendment to the CUSC should do so by filling in this "Amendment Proposal Form" that is based on the provisions contained in Section 8.15 of the CUSC. The form seeks to ascertain details about the Amendment Proposal so that the Amendments Panel can determine more clearly whether the proposal should be considered by a Working Group or go straight to wider National Grid Consultation.

The Panel Secretary will check that the form has been completed, in accordance with the requirements of the CUSC, prior to submitting it to the Panel. If the Panel Secretary accepts the Amendment Proposal form as complete, then he will write back to the Proposer informing him of the reference number for the Amendment Proposal and the date on which 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, then he may reject the Proposal. The Panel Secretary will inform the Proposer of the rejection and report the matter to the Panel at their next meeting. The Panel can reverse the Panel Secretary's decision and if this happens the Panel Secretary will inform the Proposer.

The completed form should be returned to:

Richard Dunn
Panel Secretary
Commercial Development
NGT House
Warwick Technology Park
Gallows Hill
Warwick, CV34 6DA
Or via e-mail to: CUSC.Team@ngtuk.com

(Participants submitting this form by email will need to send a statement to the effect that the proposer acknowledges that on acceptance of the proposal for consideration by the Amendments Panel, a proposer which is not a CUSC Party shall grant a licence in accordance with Paragraph 8.15.7 of the CUSC. A Proposer that is a CUSC Party shall be deemed to have granted this Licence).

Applicable CUSC Objectives** - These are defined within the National Grid Company Transmission Licence under Section C7F, paragraph 15. Reference should be made to this section when considering a proposed amendment.

Annex 2 – Proposed Text to modify CUSC

Legal Drafting for CAP076 Original Proposal and the four WGAAs are provided in a separate document.

Annex 3 – Copies of Representations Received to Consultation

Annex 3 includes copies of any representations received following circulation of the Consultation Document (circulated on 23 December 2004, requesting comments by close of business on 16 February 2005).

Representations were received from the following parties:

No.	Company	File Number
1	RWE	CAP076 – CR-01
2	EdF Trading	CAP076 – CR-02
3	British Energy	CAP076 – CR-03
4	EDF Energy	CAP076 – CR-04
5	EoN	CAP076 – CR-05
6	First Hydro Company	CAP076 – CR-06
7	Centrica	CAP076 – CR–07
8	Scottish & Southern	CAP076 – CR–08
9	Teeside Power Limited	CAP076 – CR–09
10	Association of Electricity Producers	CAP076 – CR–10
11	British Wind Energy Association	CAP076 – CR–11

Reference	CAP076 – CR- 01
Company	RWE

RWE npower

Ms Clare Talbot
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National Grid Company plc
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Warwick
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Name John Norbury
Phone 01793 892667
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E-Mail john.norbury@RWE.com

04 February 2005

Dear Clare

CUSC Amendment Proposal CAP076 - Treatment of System to Generator Intertripping Schemes

Thank you for the opportunity to respond to the above CUSC consultation proposal. The following response is provided on behalf of the following CUSC Parties within RWE: RWE Npower plc, Npower Cogen Limited, Npower Cogen Trading Limited, Npower Direct Limited, Npower Limited, Npower Northern Limited, Npower Northern Supply Limited, Npower Yorkshire Limited, Npower Yorkshire Supply Limited.

RWE has participated fully in the CAP076 working group and welcomed the opportunity to do so. We believe that the debate at the working group proved helpful to the various parties attending in understanding the wide and complex range of issues associated with intertrip schemes. However, RWE is unable to support either CAP076 or any of the alternatives for reasons given below.

Deficiency of CAP076

It is extremely disappointing that, despite the history of intertrip related issues that have arisen between NGC and Generators, this CUSC modification appears to have been raised without the wider views of the industry having been first fully considered. This is illustrated by the consultation paper failing to highlight what we believe to be the primary reasons that result in a reluctance by Generators to arm intertripping schemes; namely the risk of consequential generating plant damage and the lost opportunity costs following an intertrip event. Whilst generating plant may be designed to withstand full load rejection, as may result from an intertrip event, this is not considered part of its normal operational capability and as such, the risk of significant plant damage cannot be avoided.

The proposal identifies three defects that it is seeking to address. We do not accept that these defects provide adequate justification for the proposed CAP076 changes to the CUSC:

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1) *Due to the limited compensation window (1½ hours), NGC has experienced reluctance from Generators to arm their Schemes.*
As a Generator with a number of such intertrip schemes, it is our view that the primary reason for Generators being reluctant to arm their intertrip schemes is the risk of significant plant damage and consequential costs arising from an intertrip event. The proposal fails to identify and address the main defects of the current arrangements.

2) *Potential to significantly distort imbalance prices and also result in considerable cash flows around the industry.*
We do not accept that any change to the imbalance price, which correctly results from a defined process, can be regarded as being a distortion. If the proposer considers that the imbalance price should not reflect bid-offer acceptances arising from the operation of an intertrip scheme, this should be addressed as a separate defect. Indeed, given the infrequent occurrence of intertrip events, removing such bid-offer acceptances from the imbalance price may provide a satisfactory outcome without the need for the CAP076 proposed change.

3) *Lack of clarity regarding the categories of Schemes and the consequent reason to install such Schemes at the time of connection*
At the Grid Code Review Panel on the 9th September 2003, paper GCRP 03/21 was raised, proposing that the Grid Code Connection Conditions be amended such that the technical circumstances under which a Generator would be required to install and arm an intertrip scheme as a condition of connection would be clearly identified. At the GCRP meeting 26th February 2004, NGC clarified its view that the requirement for an intertrip scheme was derived from the application of the Security and Quality of Supply Standard and the Grid Code could not be any more specific in this respect. Given that the categories of schemes that have now been proposed are essentially a technical matter, we would suggest that this purported defect should be addressed via the Grid Code. Furthermore we note that the attempt to classify intertrip schemes as set out in the amendment proposal is incomplete, complex and confusing in comparison to the existing arrangements.

Incomplete approach

Whilst we do not support CAP076, we fail to understand the rationale for not including all forms of intertrip schemes such as system to demand and commercial intertrips within the proposed arrangements. In relation to commercial intertrips, a letter from Ofgem dated 14th November 2003 "Proposed revisions to Balancing Principles Statement, Procurement Guidelines, Applicable Balancing Services Volume Data Methodology Statement and Balancing Services Adjustment Data Methodology Statement" in relation to its approval of the ABVSD methodology stated "Ofgem therefore considers that the proposals in relation to the Commercial Intertrip Service should be superseded by enduring arrangements developed under the CUSC or Charging Methodology governance arrangements". This outstanding issue does not appear to have been addressed by this proposal.

Our greatest concern with respect to the lack of completeness of the proposals is the absence of any technical or engineering risk assessment of intertrip schemes; in particular the time within which a generating unit is required to disconnect from the transmission system. Such schemes and the associated risk to generating plant were recognised in a GEGB pre-vesting document "Design Memorandum 099/86 - Summary of Protection, Control and Powered Switching Facilities for the Grid Transmission System and Associated Plant". Whilst being referenced in at least one post-vesting bilateral agreement, we are not aware that this document has been superseded, updated, or incorporated into the existing industry documentation. In the absence of any such agreed technical standards, NGC may specify a disconnection time ranging from a few milliseconds to several seconds without giving any consideration to the risk or cost to the Generator of responding to such a requirement.

CAP076 has proposed a number of categories of mandatory intertrip schemes that may be imposed on Generators. As far as we are aware, these categories do not relate to any technical standards and neither have they been assessed or challenged in any technical forum. We do not believe that a CUSC amendment proposal is appropriate to consider these categories and would suggest that they be proposed as an Electrical Standard under the Grid Code.

RWE preferred solution

It remains our view that technical and commercial arrangements relating to system to Generator intertrip schemes should be agreed on a bilateral basis between the Generator and NGC. We believe that only a commercially negotiated agreement based on the price at which the Generator would be prepared to provide the service and the price that the system operator would be prepared to pay, is capable of delivering an economically efficient solution with the correct incentives. NGC do not appear to have addressed why it believes such an economic outcome could not be achieved, in a similar way that "commercial intertrips" are agreed, in rejecting this approach. This approach would be consistent with the proposal to remove the impact of intertrips for cash out as proposed under modification P175 to the Balancing and Settlement Code.

The operation of an intertrip scheme resulting in full load rejection by the generating unit is **not part of its normal operational capability** and presents the Generator with a risk, albeit small, of significant consequential plant damage. The Generator must therefore assume that consequential damage will occur in setting its bid price, under the current arrangements, whenever the intertrip scheme is armed. This approach has led to the false criticism that the Generator is seeking a "windfall payment" should an intertrip scheme operate. We believe that an appropriate commercial agreement for the arming and operation of intertrip schemes could be based on NGC either paying an arming fee to the Generator or indemnifying the Generator against consequential costs as a means of sharing the associated risk and securing a less negative bid price. This approach would seem to accord with the wishes of Ofgem given in its decision letter dated 2nd September 2003 in relation to Modification Proposal P87 "Removal of market risk associated with the operation of a generator intertrip scheme". Furthermore this would be a simple and pragmatic approach that enables the Generator and NGC to arrive at a mutually beneficial outcome.

Working Group Alternative Amendments

CAP076 seeks to reinforce the obligation on Generators to provide intertrip as a mandatory condition of connection whilst at the same time insulating NGC from exposure to the economic cost. Essentially, the proposal would require the scheme to be armed as a free option and would apply an administered payment in the event of the scheme operating. Consequently, if approved, CAP076 could result in the inefficient use of intertrip schemes while at the same time making them more accessible to NGC, which may result in more frequent use. NGC has provided no indication of the extent to which it expects to arm intertrip schemes under the CAP076 proposals.

It is essential that NGC be exposed to the full economic cost of utilising an intertrip scheme, in order to ensure that such a scheme is efficiently utilised in relation to the potential transmission system savings. Exposure to this cost, either as an arming payment and/or liability for consequential costs would incentivise NGC to minimise the periods for which such a scheme is armed, to co-ordinate outages with generating units such that the intertrip scheme need not be armed and to make efficient investment in infrastructure to avoid the need for intertrips. To this extent, and without out prejudice to our overriding objection to CAP076, we favour the alternatives proposed which place such incentives on NGC.

We do not accept the argument given in paragraph 5.7 of the consultation that "paying up front to cover for an unlikely event is inefficient" with respect to an arming payment. The payment of a premium in exchange for risk is generally recognised and accepted to be an economically efficient process. We note that NGC itself receives such premiums in exchange for the provision of liquidated damages under the terms of the Construction Agreement, these premiums being charged to the Gross Asset Value of the new connection assets.

WGAA A - CAP076 + Payment for an Arming Fee (bilateral contract)

The cost to the Generator of providing an intertrip scheme is dependent upon a wide range of factors, including the generating plant technology, primary fuel type, Generator's propensity to risk, market position and exposure, interaction with insurance, likelihood of an intertrip event occurring, likelihood of generating plant damage, etc. Consequently, the cost of providing intertrip must be determined on a site-specific basis to ensure economic efficiency. This alternative provides for the risk of consequential costs imposed on the Generator as a result of an intertrip scheme being armed to be independently valued, thereby ensuring cost reflectivity and economic efficiency of the service. Whilst we believe that this alternative has some merits, it is not our favoured alternative.

WGAA B - CAP076 + Payment for an arming fee and enhanced capability fee (administered in the CUSC)

Whilst this alternative provides for an administered arming fee which will incentivise NGC to a certain extent to minimise the utilisation of intertrip schemes, we are concerned that the level of payment will be inadequate to address the risk of consequential damage imposed on the Generator. Consequently, the Generator would not be sufficiently incentivised to arm an intertrip scheme. We do not support this alternative.

WGAA C - CAP076 + Post Event compensation for physical plant damage losses

The absence of an arming fee will fail to incentivise NGC as discussed under alternative B. Furthermore, the vagaries of post-event compensation and the interaction with the Generator's insurance means that the Generator would be unlikely to be sufficiently incentivised to arm an intertrip scheme. We do not support this alternative.

WGAA D - CAP076 + Payment for an arming fee and enhanced capability fee (CUSC administered + Post Event compensation for physical plant damage losses)

Given the deficiencies of an administered arrangement, we favour Alternative D in preference to the other three alternatives given. We believe that the payment of an arming fee will incentivise NGC whilst post event compensation will go some way to protecting the Generator against significant consequential costs.

In Summary

RWE does not support CAP076. We do not believe either CAP076 or any of the alternatives would better facilitate the CUSC objectives for the following reasons: -

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

The current arrangements allow for the Generator to submit a bid price at a level that it would be prepared to be subject to an intertrip event. We do not believe NGC would be prevented from entering into a bilateral agreement with a Generator with a view to sharing the risks/costs, thereby allowing the

Generator to offer a more favourable bid price. Substituting this with an administered arrangement as proposed under CAP076 would result in NGC being insulated from the full economic cost of arming ar intertrip scheme, thereby decreasing the efficiency of its decisions and actions.

(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

Imposing intertrip schemes on certain generating units as a condition of connection, without recognising the economic cost to the Generator of meeting this requirement, would result in discriminatory treatment between different generating units depending on the location at which they are connected to the transmission system. Of those generating units subject to intertrip schemes, further discriminatory treatment would arise as a result of the varying times within which they are required to disconnect from the transmission system as a result of an intertrip event.

I trust that you will find the above comments helpful. If you wish to discuss any aspects further please do not hesitate to contact me.

Yours sincerely

John Norbury
Network Connections Manager

Reference	CAP076 – CR – 02
Company	EdF Trading

-----Original Message-----

From: steve.drummond@edftrading.com [mailto:steve.drummond@edftrading.com]
Sent: 14 February 2005 16:59
To: Greasley, John; Dunn, Richard
Cc: Jonas.Tornquist@edftrading.com; namesh.hansjee@edftrading.com; John.Grey@edftrading.com
Subject: CUSC Amendment Proposal CAP076 - Treatment of System to Generator Intertripping Schemes

John/Richard,

Many thanks for the very interesting consultation report for CAP076 and the opportunity to provide further comment. The comments given below are made on behalf of EDF Trading Ltd and EDF (Generation).

The compilation of the report was obviously the result of some very detailed technical and commercial deliberations and it provides a good reference document on the various categories of intertrips that exist and therefore need to be catered for on the system.

When operating the system there is the need for a fair balance of risk and reward. The report highlights that in the UK at present, the generators are bearing the risks of increased costs when placed on Intertrip, without being in receipt of any benefits. For that reason we would support CAP076 and in particular the rational given in the report for adopting the Working Group Alternative (Option 4). This would obviously have the effect of increasing costs of operating the system and it would, as a consequence, be passed through to BSUoS. Despite not having the means to mitigate this increase at the moment, we nevertheless believe that it would be both fair and reasonable to adopt this approach and that it is in keeping with the CUSC Objectives. The alternative is to risk such intertrip facilities not being available which would be detrimental to the system initially and ultimately very costly.

An area of disappointment to us was that the scope of CAP076 was limited to generators only. Whereas we could understand the wish at this stage to limit the investigation to the generation side of the market, we would have liked to have seen the debate extended to Interconnections. These facilities can and do in some cases have intertrips included in the design, for exactly the same reasons as for generators. We are aware that, as Interconnector Users of the Anglo-French Interconnector, we too are exposed to imbalance risks should the intertrip schemes associated with IFA be armed and we would like to have seen this end of the generation market addressed in similar fashion. There would therefore be an element of discriminatory treatment should CAP076 be approved and implemented. However, we would not wish this aspect to hold up consideration of CAP076, but we would hope that this issue is addressed as soon as possible once it is known which methodology is to be adopted.

I hope these few comments are considered helpful.

Kind regards
Steve Drummond
UK Market Adviser to EDF Trading Ltd

Reference	CAP076 – CR – 03
Company	British Energy

From: **Morris John [john.morris@british-energy.com]**
Sent: 16 February 2005 00:44
To: Balancing Services
Cc: Capener John; Mate Martin; Phillips Steve
Subject: CAP076 Treatment of System to Generator Intertripping Schemes

To:
Clare Talbot
National Grid Transco
NGT House
Warwick Technology Park
Gallows Hill
Warwick

(by email)

Dear Clare

Thankyou for the opportunity to comment on CUSC amendment proposal CAP076, this response is made on behalf of British Energy Power & Energy Trading Ltd, British Energy Generation Ltd, Eggborough Power Ltd, British Energy Generation (UK) Ltd, British Energy Direct Ltd. British Energy was represented at the working group charged with reviewing the initial proposals and formulating alternative amendments.

1. After reviewing all proposals British Energy would support the adoption of Working Group Alternative D. This is CAP76 based plus an administered arming fee (Category 2 intertrip) or enhanced capability fee (Category 4 intertrip) and a post event claims process.

2. There has been discussion of some aspects of why and arming fee is deemed appropriate within the consultation document. For the period of arming (Category 2 interip) there would be additional surveillance and plant availability checks to be carried out for nuclear generation which applies to other plant as well. This would include ensuring sufficient post trip auxiliaries for plant protection were available and not taken out on maintenance for the period of heightened risk, particularly if adverse weather was forecast. As a prudent measure certain plant testing may also be suspended whilst the intertrip was armed. Shift briefing and log entries would need include recording of the ongoing arming. In addition the use of an arming fee would encourage both the Generator and NGC to use the Grid Code OC2 process in planning timescales to align generator/transmission outages to avoid any arming action altogether.

3. The consultation identified that no intertrips have operated since NETA Go-live. Consequently there is a low probability but high consequence to the Generator of any intertrip causing plant damage. In these circumstances it seems reasonable to at least have the provision within the CUSC for the generator to seek compensation.

4. The original amendement proposal and all working group alternatives move towards achieving applicable CUSC objectives in terms of efficient discharge by the licensee of the obligations placed on it under the Act to greater or lesser degrees. At the time of new connections the economic test of alternatives to providing the intertrip can be made particularly with Alternative D when expected utilisation per annum can be factored in with the administered pricing. Furthermore Alternative D provides an incentive to consider alternatives to arming an intertrip (Category 2 intertrip) in planning timescales. It also provides a mechanism to seek redress for plant damage so potentially reducing the financial risk faced by Generators.

5. One area where the nuclear generator is particularly disadvantaged by these arrangements is the limit of 24 hours as the period of being held harmless to imbalance

exposure. Advanced Gas Reactor plant would not be able to return to service within this time due to nuclear physics properties of a tripped reactor.

6. During the course of working group discussions the definition of category 1 Intertrips became refined. Originally it was believed that an intertrip would only be offered to allow early connection of a generator where re-inforcement of the transmission system was required and hence time limited. Subsequently it was deemed that an intertrip may be used as an alternative to reinforcement and still meet the SQSS. It would therefore appear that a new connectee may be forced into a position of accepting what amounts to a non-firm connection and carrying all the risks of imbalance exposure should the intertrip operate. This may pose difficulties for say renewable generation when attempting to get finance and having this unquantifiable risk for the lifetime of the plant. Does this definition mean that there is now no such thing as a derogated connection prior to transmission reinforcement works? It is not clear how subsequent re-inforcement for wider system reasons (such as renewable growth) would affect the original generator on intertrip.

7. The amendment proposal did not specifically address the arrangements in Scotland and the secured events are not necessarily identical in the SQSS. This could lead to more or less onerous use of intertripping on the Scottish networks which could be considered discriminatory.

Yours sincerely,

John Morris
Transmission and Trading Arrangements
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Reference	CAP076 – CR – 04
Company	EDF Energy

Dear Clare

CUSC Amendment Proposal CAP076 – Treatment of System to Generator Intertripping Schemes

EDF Energy is pleased to have the opportunity to respond to this consultation on the CUSC Amendment Proposal CAP076.

Summary

EDF Energy considers that Working Group Alternative Amendment D best achieves the Applicable CUSC Objectives.

EDF Energy believe that the Original CUSC Amendment and all of the Working Group Alternative Amendments better achieve the Applicable CUSC Objectives to varying degrees. However, we consider that Working Group Alternative Amendment D best achieves the CUSC Objectives as it addresses all of the costs and risks that have been identified by the working group as being associated with the arming and potential operation of a System to Generator Intertripping Scheme. This options therefore holds the Generator harmless to any adverse impact of being intertripped thus facilitating effective competition. Additionally the combination of an arming fee and post event compensation for damage means that the costs of managing the risk are adequately and efficiently covered.

Our views on the Original Proposal and Working Group Alternative Amendments are discussed in more detail in the attached appendix. If you have any queries regarding this response please do not hesitate to contact me on 0207 752 2526.

Yours sincerely

Rupert Judson
Transmission Infrastructure
& Development Manager

Appendix: Detailed Response

Categorisation

EDF Energy support the proposed categories of intertrip as we believe these provide a reasonable categorisation of the range of potential intertrip situations on the transmission system. The introduction of these categories should help to clarify the treatment of different types of System to Generator Intertrip and will therefore provide greater transparency to Generators and better achieve the CUSC Objective to facilitate effective competition.

However, we believe that the definitions of these categories are of a technical nature and should therefore be placed in the Grid Code. We therefore support the Alternative Grid Code proposal to introduce these definitions into the Grid Code.

CAP076 Original

The CAP076 original proposal recognises the costs that would normally be expected to arise in the event of the operation of an intertrip, namely the equivalent operating hours cost of wear and tear. It also recognises the ongoing administrative costs of providing intertrip capability. The introduction of a process to address these costs directly rather than through deemed bid acceptances reduces uncertainty for both the generator concerned and the rest of the market and therefore facilitates effective competition and efficiency.

The drawback of this approach is that it does not recognise any of the risk management costs associated with the arming of an intertrip or the potential costs and losses that would arise from any damage resulting from the operation of an intertrip.

We believe that the CAP076 original proposal does better achieve Applicable CUSC objective (a): efficiency and objective (b): facilitating effective competition but not to the same extent as some of the Working Group Alternatives.

Working Group Alternative Amendment A

Working Group Alternative Amendment A addresses the risk of plant damage resulting from an intertrip in addition to the costs that are covered by the Original Amendment. This is done through an arming fee based on the cost of insuring against the risk of plant damage. We consider this Alternative to be an improvement on the Original Amendment in terms of facilitating competition as it removes the small but potentially significant risk associated with possible plant damage by covering the cost of insuring against this risk.

However, we do not believe that this Alternative Amendment better achieves the efficiency objective as it would require a process for putting in place and revising bilateral agreements to cover the insurance cost. The process of obtaining insurance quotes to support the bilateral contract could be onerous for some participants and the costs to NGC (and ultimately transmission users) could be highly variable between different generators and also lack transparency.

Working Group Alternative Amendment B

Working group Alternative Amendment B aims to recognise the variable costs associated with the arming of an intertrip which have not been addressed by the Original Amendment Proposal. Generators have to manage a number of risks associated with generating under different circumstances. This risk management

activity incurs costs such as operational overheads, risk hedging products and insurance costs. These costs, as they relate to intertrips, are variable but linked to the frequency and duration of intertrip arming. The longer the duration of arming, the higher the risk and therefore the higher the cost of managing the associated risks.

The costs of such risk management measures vary depending on market conditions and the particular approach taken. The proposed administered arming fee is based on a simple estimate of the cost of backup generation in the event of an intertrip operating. Although this is only one of a number of risk management approaches that could be adopted when an intertrip is armed, we believe that it provides an appropriate level of payment that should cover the risk management costs of most generators.

We consider that Working Group Alternative Amendment B better meets the applicable objectives than the Original Amendment and WGAA A as it provides a more complete recognition of the costs and risks faced by generators when their intertrip is armed. This would therefore facilitate effective competition by removing any competitive disadvantage for generators with intertripping schemes.

We also believe that WGAA B facilitates the efficient discharge by the transmission licensee of its obligations by providing a simple and transparent arming fee and additionally by creating incentives on NGC to minimise the duration of intertrip arming.

Working Group Alternative Amendment C

A post event compensation scheme would directly address the risk of plant damage occurring as a result of the operation of an intertrip. This would effectively deal with one of the key issues associated with intertrip schemes. The removal of the risk of plant damage through a compensation scheme would ensure that those generators with intertrip schemes are on an equal footing with those generators without an intertrip. This would better achieve the CUSC Objective to promote competition than the Original Amendment. The proposed compensation scheme would also fulfil the efficiency objective as it would only be activated (and therefore give rise to costs to the industry) in the rare event of a claim.

One drawback of this Alternative Amendment is that it would require the generator to have acted prudently in having in place appropriate risk mitigation products, such as insurance. However, the costs of any plant damage insurance would be higher for generators with an intertrip than for those without an intertrip. Furthermore, the frequency and duration of intertrip arming would also have an impact on the insurance cost. This Alternative Amendment does not recognise this additional cost to generators with an intertrip scheme and therefore they would remain at a disadvantage to any generator without such a scheme.

Working Group Alternative Amendment D

This Alternative Amendment Proposal, by combining WGAA B and WGAA C addresses the shortcomings of both these Alternatives. Under this proposal the generator would be paid:

- a capability fee to cover administrative costs of providing intertrip capability;
- an arming fee to cover the costs of risk management actions that a prudent generator would take in the event of having their intertrip scheme armed;
- a tripping fee to cover the expected additional cost of wear and tear as a result of the operation of the intertrip; and,
- a compensation scheme to cover any losses arising from damage to plant as a result of the operation of the intertrip.

We believe that this is the only one of the proposals resulting from CAP076 that addresses the full range of costs and risks associated with the use of System to Generator intertripping schemes and therefore achieves the Applicable CUSC Objectives to a greater extent than CAP076 Original Amendment, or the other three Alternative Amendments.

Reference	CAP076 – CR – 05
Company	EoN

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Clare Talbot
National Grid Transco
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Gallows Hill
Warwick
CV34 6DA

Thursday 21st January 2005

Dear Clare,

RE: CUSC Amendment Proposal CAP076 – Treatment of System to Generator Intertripping Schemes.

E.ON UK appreciates the opportunity to comment upon this CUSC Amendment Proposal. We concur with the CAP076 Working Group that Alternative Amendment 'D' should be accepted. Whilst broadly supportive of CAP076 we do have concerns about certain aspects of the proposal. In general we believe that each of the Alternative CUSC Amendment proposals considered within the consultation document will better meet the applicable CUSC Objectives, albeit to differing degrees. The following comments provide the rationale for our preferred solution.

CAP076 Original Proposal

Category One

We have significant concerns arising from the definition of Category 1. This category covers intertrips which may be used to facilitate a 'Variation to Connection Design'. We believe that Category 1 is likely to result in two tier transmission access between those who pay their TNUoS and receive firm access to the transmission system and those who pay the same level of TNUoS but are obliged to arm an intertrip, effectively making their access non-firm. With this in mind it seems reasonable to suggest that where generators pay the same level of TNUoS they should receive the same access rights. Accepting that firm access cannot necessarily be achieved in the circumstances envisaged under Category One, equitability could be assured by ensuring that all connections are made financially firm.

This could be achieved either through a reduction in TNUoS for those generators with a Category One intertrip, or through the provision of compensation in the event of a trip. Differing levels of compensation are available to generators under categories 2, 3 and 4, it is therefore unclear as to why Category One can not receive equitable treatment.

The consultation paper considers that National Grid would undertake an economic assessment of whether any reinforcement would be required. Given that the connecting generator would receive neither remuneration (for the installation of the intertrip) nor compensation (in the event of the intertrip firing) NGC's economic assessment seems futile. The risks and costs faced by the generator are completely ignored by NGC and therefore the only possible outcome from any such 'economic assessment' is for an obligation to be placed on the generator to install the intertrip.

We are concerned that Category One will necessarily reduce the level of system security. Whereas currently an intertrip may be offered as a short term solution for a generator wishing to connect prior to the reinforcement required by security standards, Category One will result in generators being permanently armed for the lifetime of the plant. This represents a fundamental change to access, with new generators forced to accept a second rate connection along with the associated risks. The potential imbalance exposure and consequential plant damage alone make the materiality of a trip financially significant. As a result of this, Category One may act as a disincentive to connect new generation. This seems counterintuitive in the context of longer term concerns about security of supply. On this basis we would have preferred the omission of Category One.

Category Two

Category Two intertrips are designed only to be used at times of system maintenance where the generator concerned is the only one that can reduce the overload if fault conditions occur. We believe there to be two significant issues with such intertrips. Firstly, as with each of the proposed categories, the compensation under the original proposal fails to recognise the potential consequences of a trip. Secondly, as a result of NGC's inability to recognise the consequences of arming such an intertrip, alternatives such as Transmission System investment or the co-ordination of outages will be ignored. This is likely to lead to outcomes which are substandard in terms of efficiency. However, we are happy to support the principle of Category Two provided it is adopted in conjunction with one of the Working Group Alternatives.

Category Three

We remain unconvinced about the rationale behind the Category Three intertrip. The consultation document suggests that such a scheme is appropriate in that it is in accordance with paragraph 1.4 of the Security and Quality of Supply Standard (SQSS). This paragraph states…

*'**1.4** The consideration of Secured Events as defined in this Standard may lead to the identification of inadequate capability of equipment or systems not owned or operated by NGC (for example, the overloading of lower voltage connections between Grid Supply Points). In such cases NGC will notify the Network Operators affected. Reinforcement or alternative operation of the NGC Transmission System to alleviate inadequacies of equipment or systems not owned or operated by NGC would be undertaken where it is agreed by both NGC and the Network Operators affected'. (SQSS, Issue 2).*

We do not believe that the intention of the SQSS is synonymous with the intention of NGC's Category Three. In fact, the SQSS appears to recognise that there is no contractual relationship between Generators and third party systems (e.g. DNO Systems). Instead, Paragraph 1.4 places a

clear obligation on NGC to reach agreement with affected Network Operators, in circumstances where the Transmission System requires either reinforcement or alternative operation as a result of the inadequate capability of a third party system. There appears to be no basis behind a requirement for generators to install an intertrip under such a scenario. As with Category One, this categorisation looks to be indistinguishable from a commercial intertrip. An agreement reached between NGC and the DNO could be achieved by offering a Generator commercial terms to install an intertrip.

Under the proposed category it seems reasonable to suggest that the generator in this situation will always be forced to install such an intertrip. This is because the DNO has no incentive to pay for reinforcement costs if they are aware that the generator ultimately will have to resolve the issue prior to their connection. Whilst we would prefer to see Category Three removed from these proposals, we do believe that there may be a way to place an incentive on third party systems. It may be appropriate to expose the DNO to the costs of the imbalance (removed by ABSVD) in the event that a Category Three intertrip fires. This would encourage DNO's and generators to engage in dialogue in order to reach the most efficient solution, which in some circumstances may mean sharing the costs of reinforcement.

In common with each of the proposed categories (under the original proposal) the compensation arrangements fail to recognise the potential consequences of a trip.

Category Four

Category Four represents an intertripping scheme which would be used where the generator would be disconnected from the Transmission System and where the use of the scheme would allow the timely restoration of critical circuits. Whilst unable to find a reason why a generator would wish to stay connected post fault we can concur with NGT that the operation of Delayed Auto Reclose (DAR) would be enhanced by the inclusion of this category. However, this is not to say that an obligation placed on a generator to install an intertrip (solely to allow the effective operation of DAR) is necessarily the most efficient solution.

Without the recognition of potential consequential damage following a trip we are unable to support this category. We do however, understand the rationale behind this categorisation and would be willing to support the utilisation of this category provided that it was introduced as part of one of the Working Group Alternatives. This would provide three substantial benefits; it would enable National Grid to make a full economic assessment as to whether an intertrip should be installed, where an intertrip is required it would ensure that an individual generator is not penalised for helping NGC achieve the greater good and it would over come the perceived reluctance of generators to arm their schemes.

Tripping Fee

We believe that the tripping fee covers the appropriate costs in terms of Equivalent Operating Hours (EOH), Wear and Tear and Fuel costs (for start up following a trip). We are satisfied that the tripping fee agreed by the Working Group represents a reasonable estimate of the costs considered. However, it must be noted that this fee does not take account of the costs associated with plant damage and any other type of consequential loss. Such loss, is likely to dwarf the proposed tripping fee and must be reflected in a compensation mechanism, such as those suggested in the Working Group Alternative Amendments.

Capability Fee

The capability fee is intended to cover the cost of staff training and to an extent we believe that it reflects this expenditure, although we feel that Alternative Amendment 'B' presents a more accurate assessment of a capability fee along with a detailed rationale as to how the specific figures were derived. We do however, believe that an Arming Fee would provide a far superior incentive on NGC to make a full economic assessment as to when an intertrip should be armed.

The consultation document states that NGC believe that there is '*no commercial decision involved in deciding whether to arm these intertrips*' (Pg 11, CAP076 Consultation Document). An understanding of the consequences of your actions is crucial if you are to carry out a full economic assessment. The statement above highlights the absence of consequential thinking from NGC's economic assessment and serves to confirm the requirement for an economic signal provided from both an arming fee and compensation for consequential damage. We believe that a commercial decision is involved in determining whether an intertrip should be armed as options clearly exist. Reinforcement of the transmission network, re-scheduling of outages and considering commercial terms for an intertrip are all feasible alternatives which may result in a more efficient operation of the Transmission System.

CAP076 Working Group Alternative Amendments

Working Group Alternative 'A' (WGAA A)

We consider that on balance this Alternative Amendment is superior to the original CAP076 proposal. The WGAA 'A' would ensure the NGC would be exposed to the consequential costs of an intertrip firing, thereby facilitating an enhanced economic assessment. However, notwithstanding our preference for this proposal over the original we believe that this solution would hinder market transparency.

A further concern about this particular proposal is that a significant expense would be incurred 'upfront' despite the likelihood of a trip being low. This will necessarily affect the efficiency of this methodology. A better approach would be to address the consequences of a trip post-trip (see Working Group Alternative Amendments C+D). These approaches are consistent with the principle of cost reflectivity and would facilitate efficient investment and operation of the transmission system whilst ensuring an equitable outcome.

Working Group Alternative 'B' (WGAA B)

We agree with the proposer of WGAA 'B' that this proposal would expose NGC to the variable costs associated with the arming of an intertrip. As we have stated earlier we believe that it is vitally important for NGC to take account of all the costs involved in installing and arming an intertrip. In this respect we consider WGAA 'B' to be superior to both the Original Amendment and WGAA 'A'. However, we do not believe that this proposal takes full account of the potential damage following the operation of an intertrip.

Working Group Alternative 'C' (WGAA C)

We consider that this Alternative Amendment addresses the primary concern of generators in that it provides post trip compensation, but only in the event that the Generators actions/readiness were that of a prudent generator. We also consider that this proposal better meets applicable objective (b) as it places generators on an equal footing in terms of quality of access to the Transmission System.

We therefore consider WGAA 'C' to be superior to CAP076 Original, WGAA 'A' and WGAA 'B'. However, CAP076 plus compensation post trip, does not necessarily reflect all of the costs pre-trip. Whilst fully supportive of WGAA 'C' we consider WGAA 'D' to better reflect the true cost of an intertrip scheme, at all key stages namely; prior to installation, prior to arming and post firing.

NGC express their preference for this WGAA compared to WGAA 'A', but suggest a single reason as to why such an approach is not acceptable. In Paragraph 11.13 of the consultation document, NGC state that they do not consider it appropriate to insure a generator against plant damage (this argument is also levelled against WGAA 'D'). In fact Category 'C' has been carefully drafted to ensure that this isn't the case. The generator will still have to insure against the possibility of a reasonable level of damage as this would be the action of a prudent Generator. Furthermore, compensation would be net of any insurance payment received by the Generator. Given these facts we can not see any reason why NGC should not support this Alternative.

Working Group Alternative 'D' (WGAA D)

E.ON UK agrees with the Working Group that of all the options available, WGAA 'D' best facilitates the Applicable CUSC Objectives. As with each of the Working Group Alternative Amendments this option better facilitates the ability of NGC to undertake a full economic assessment prior to arming an intertrip. We believe this Alternative to be the best in this respect as it takes the most realistic and comprehensive view of the costs likely to result from the installation, arming and firing of an intertrip. As the option with the most precise estimate of costs this will facilitate the most accurate economic assessment of the Transmission System and hence result in the most efficient solution.

Likely Frequency of Trip

It is difficult to reconcile the fact that no intertrips have operated since NETA Go-live with the creation of two completely new types of intertrip. This suggests a likely increase in the number and therefore the operation of intertrips going forward. Given the predictable outcome of this amendment, an increase in intertrips, the argument for not socialising all of the costs because the historical perspective suggests the frequency of such events is low, seems flawed.

SO-TO Code Interactions

Under paragraph 7.3 of the consultation document we note that NGC refer to the term 'benefit' in relation to the value of an intertrip to a TO. This reveals the rationale behind the facilitation of a greater number of intertrips. This benefit comes from the transfer of risk from the TO to individual generators. Given that intertrips should be necessitated by operational factors it is appropriate that the costs of remuneration/compensation are socialised rather than place a potentially terminal risk on a generator.

Technical Definitions to be Included in the Grid Code

We are fully supportive of the efforts to place the technical definitions under the Grid Code and agree with the Working Group that this should be facilitated by the ongoing Grid Code Consultation. Further comments on this matter can be found within our response to the above consultation.

E.ON UK's Preferred Solution

Having carefully considered all of the options discussed within the consultation document, E.ON UK believe that the Working Group Alternative Amendment 'D' represents the most equitable and efficient solution. We consider the most important aspect of this amendment to be the recognition of plant damage which may occur following the operation of an intertrip. It is only through a full economic assessment of potential costs that the most efficient solution can be ascertained. WGAA 'D' provides the most accurate consideration of costs and therefore best facilitates the relevant CUSC objectives. The Original proposal is our least preferred solution, although we recognise that some elements of this proposal could better facilitate the relevant CUSC Objectives in terms of transparency and certainty. However, it should be recognised that each of the benefits contained within the original proposal are also inherent within the Alternative Amendments along with substantial enhancements.

If you would like to discuss any of the matters raised within our response please don't hesitate to contact me.

Yours sincerely

Neil Smith
Regulatory Analyst
Trading Arrangements
Energy Wholesale
E.ON UK plc

Reference	CAP076 – CR – 06
Company	First Hydro Company

FIRST HYDRO

Dear Clare,

CAP 76 - Intertrips (Category 2)

Thank you for the opportunity to comment on CAP 76. Having reviewed the proposal and the various amendments we offer the following comments, specifically relating to the Category 2 intertrips.

We believe that generators should receive availability and arming fees for intertrips, and they should receive a trip payment (and not suffer imbalance exposure) if the intertrip is triggered.

The availability/arming fees should recognize that the plant is effectively on 'increased risk of trip' when the intertrip is armed and is therefore receiving a poorer level of access to the system. The generator should thus receive an availability fee when a system is present and an arming fee when the system is armed.

There should be a trip payment paid when the intertrip is actually used to trip generating units off. This should be a fixed amount and not subject to a claim for physical damage. The latter approach would approximate to an insurance pool where generators with good resilient plant were providing cover for plant that is less resilient. This is undesirable.

Of the various options put forward we believe that Alternative B best meets the above criteria, and we would support the implementation of this option.

Yours sincerely

Simon Lord
Ancillary Services Manager

Reference	CAP076 – CR – 07
Company	Centrica

Dear Clare,

CUSC Amendment Proposal CAP076 – Treatment of System to Generator Intertripping Schemes

Centrica welcomes the opportunity to comment on the aforementioned consultation document and supports the implementation of the Working Group Alternative Amendment (WGAA) D. WGAA D builds on the original proposal raised by NGC and maintains the administered price element which increases efficiency whilst introducing more cost reflective payments that will better facilitate competition.

Centrica acknowledge that there is a suite of modification proposals being discussed across a range of governance documents considering the treatment of Intertrips. Centrica also notes the Ofgem view expressed in the P87 decision letter that states "Intertrips should be considered under the CUSC or Charging Methodology statements rather than the BSC." Notwithstanding Ofgem's view Centrica's preference is for Intertrips to be treated via the BSC, paid-as-bid but not fed into the imbalance price calculation. However, based upon the content of the P87 decision letter it appears that this is no longer a viable option.

Centrica therefore believes WGAA D will improve Applicable Objective (A) as it will enable the licensee to more efficiently discharge its license obligations. Centrica believes the remuneration arrangements proposed under this option will encourage and incentivise the licensee to align transmission system outages with generator planned outages. Aligning the scheduled outages will deliver many of the benefits specified by the proposer at the time of raising the Amendment Proposal. The main difference being the fee payable to those users with an Intertrip that is continuously armed. Including an enhanced capability fee should further incentivise the licensee by ensuring there is sufficient economic justification for firing the Intertrip.

Centrica also believe that the proposed solution will better facilitate effective competition in the generation and supply of electricity. WGAA D provides a greater level of consistency in respect of the payment terms a generator can expect to receive. It also provides a greater level of certainty and protection for the generator, as generators that have an intertrip fired will not be exposed to imbalance prices for a pre-specified period of time. Centrica recognise that the timeframe is subject to a separate consultation but we believe this should be the longer of the periods specified in the consultation, 24 hours. The solution will also benefit all other market participants by helping to ensure that imbalance prices are reflective of energy actions and not distorted by system related actions.

Whilst WGAA D includes the provision for a post event claims system Centrica believe this would only be required in a very limited set of circumstances. Centrica concur that the claims process must be based upon the high level principles highlighted within the consultation documentation. The claim must only cover the physical damage caused by the trip, it should be time limited and should place an obligation on the claimant to raise the claim within a limited yet realistic window.

Centrica believe it is essential that the body chosen to consider the claim are impartial and have the necessary technical knowledge to dispose of the claim in an efficient and authoritative manner.

If you have any questions regarding this response please ring me 01753 431137.

Yours sincerely,

Mark Manley
Contract Manager

Reference	CAP076 – CR – 08
Company	Scottish & Southern

From: **Garth.Graham@scottish-southern.co.uk**
Sent: 16 February 2005 17:20
To: Balancing Services
Cc: Balancing Services; Payne, David - NGT House
Subject: CAP076 Consultation Response

Dear Sirs,

This response is sent on behalf of Scottish and Southern Energy, Southern Electric, Keadby Generation Ltd., SSE Energy Supply Ltd. and Medway Power Ltd.

In relation to the four broad questions contained in the CAP076 Consultation document, we have the following comments to make.

However, before answering the questions posed; and considering, for example, the references in paragraphs 3.9 and 3.15 of the Consultation Document and paragraph 3.57 of the Working Group report to England & Wales, and the lack of views from other TOs (beside NGT in section 11 of the consultation document); it seems to us that the CAP076 consultation document does not appear to have taken account of the situation in Scotland and therefore we look forward to commenting on the forthcoming Ofgem GB Consultation for CAP076 in due course.

In addition, noting the comments in section 7.3 of the consultation document, and without prejudice to comments that may be made in respect of any future consultation relating to changes to the STC, if there were to be any 'backing off' of any remuneration to a User made by NGC for Operational Intertrips then there must be no discrimination between Users in Scotland and England & Wales with all such payments taken out of the GBSO Incentive Scheme.

Q1 Do you believe CAP076 better facilitates the Applicable CUSC Objectives? Provide Rationale

We do not believe that CAP076 better facilitates the Applicable CUSC Objectives as it fails completely to achieve objective (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) because it:-

i) removes the 'pay as bid' philosophy that is the cornerstone of the NETA (and BETTA) market (which thus does not facilitate effective competition in the generation and supply of electricity);
ii) fails to take account of costs legitimately incurred by parties with respect to such items as plant damage or consequential losses; and
iii) fails (by virtue of not taking account of costs legitimately incurred) to reduce the financial risks faced by Generators due to the operation of intertrips.

Furthermore we believe that CAP076 fails completely to achieve objective (a) (the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this licence) because:-

i) in "Removing NGC and Industry exposure to the consequences of operation of a Scheme with an associated large negative bid price" (as noted in section 4.3 of the Consultation Document) it means that NGT has no incentive to take account of these legitimate costs in taking the actions it does;
ii) in removing the legitimate costs incurred by parties from the calculation it does not accurately reflect the true economic cost when assessing the installation of an Intertrip Schemes as against transmission reinforcement at the time that applications are made for new connections, and thus gives a false and misleading impression of the benefit of one verses another;

iii) it fails to minimise exposure of Generators to all the costs they may incur (following the operation of an intertrip) which the current arrangement does and therefore will result in increased reluctance (by generators) to arm and use intertrips;
iv) it makes use of an administered payments which (by their very nature) tend to lead to inefficiencies and therefore cannot be said to be an efficient discharge by the licensee of its obligations; and
v) it excludes System to Demand and System to Interconnector intertripping schemes and thus discriminates against System to Generator intertrips.

In addition we do not agree with the proposition of the proposer of CAP076 (as outlined in section 5.14 of the consultation document) " that an arming fee had been ruled out in the [CAP076] original proposal because no physical costs associated with arming itself had been identified", as the arming fee needs to take account of the all costs (and risks) associated with the arming of an intertrip (and should not be limited to just 'physical' costs - what ever they are).

Q2 For each of the WGAAs: Do you believe that the WGAA better facilitates the Applicable CUSC Objectives? Provide Rationale Alternative A
We believe (in addition to the reasons outlined in section 5.6 of the consultation document) that the Working Group's Alternative A would better facilitates the Applicable CUSC Objectives with respect to objective (b), when compared with CAP076 Original, as it:-

i) ensures that the generators are 'held whole' in the event of a trip;
ii) ensures that the value of risk, and the reasonable view of likely damage, is taken into account; and
iii) by allowing the insurance premium to be commercially costed (or for NGT to decide to take on the risk itself) ensures that the true economic cost of intertrips is taken into account by NGT.

For the avoidance of doubt, we do not believe that the process (if a bilateral figure cannot be agreed) would be any more of a complicating factor than any of the other bilateral agreements in place between NGT and generators. In addition as someone will have to pay (a cost being legitimately incurred) then the decision to pay upfront to cover for an unlikely event or take the risk (and incur the actual costs if the "unlikely event" occurs) should reside with NGT, who could chose to competitively tender (on a collective basis for all Intertrip plants) amongst the Insurance community for the provision of insurance to cover the overall risks associated with all the intertrip schemes (and achieve a level of cover at a more economic price than individual generators are likely to).

Alternative B
We believe (in addition to the reasons outlined in section 5.15 of the consultation document) that the Working Group's Alternative B would better facilitates the Applicable CUSC Objectives with respect to objective (b),when compared with CAP076 Original, as it:-
i) ensures that NGT is exposed to the variable costs associated with the arming of an intertrip, thereby ensuring that any decision to arm intertrip schemes would be economically justified;
ii) is consistent with the payment structure for other comparable ancillary services in which an availability fee is paid to the generator for being in a state of readiness for an instruction or event;
iii) ensures that the costs of the generator managing the risk of plant damage in the event of a trip is taken into account.

Alternative C
We believe (in addition to the reasons outlined in section 5.27 of the consultation document) that the Working Group's Alternative C would better facilitates the Applicable CUSC Objectives with respect to objective (b), when compared with CAP076 Original, as it:-

i) ensures that all the costs legitimately incurred by a Generator is fully (and efficiently) paid for by those who receive the benefit from its use, namely all stakeholders (and not just the Generator in question) noting that CAP076 covers mandatory intertrips and therefore those Generators affected will have no choice regarding the installation and arming (and hence firing) of the intertrip;

ii) takes account of costs legitimately incurred by Generators with respect to such items as plant damage; and
iii) reflects the fact that even if a Generator were to have insurance cover for the risks associated with plant damage, that policy excesses and deductibles may mean that not all the costs (associated with plant damage) incurred by the Generator would be paid via CAP076.

For the avoidance of doubt (in respect of the comments in section 5.22 of the consultation document) it can only be said that a "plant has been designed, constructed, commissioned...in compliance with industry codes and health and safety legislation" at the time of its design, construction and commissioning, and therefore if the industry codes changes then the plant may (by definition) be none compliant with the revised industry codes. We echo the comments (in section 5.24 of the consultation document) that if the risk (associated with intertrips) is trivial, then those who benefit from the intertrip (the wider community, and not just the Generator per se) should have no problem in agreeing to reasonable measures to mitigate the risk. We suspect that such comments (intimating that the risks are trivial and should, in some way, be 'overlooked') are made by those who would not have to deal with the consequences of plant damage themselves.

Alternative D
We believe (in addition to the reasons outlined in sections 5.31 and 5.32 of the consultation document) that the Working Group's Alternative D would better facilitate the Applicable CUSC Objectives with respect to objectives (a) and (b), when compared with either CAP076 (original), Alternatives A or B or C, as it incorporates all the benefits (in terms of better facilitating the Applicable CUSC Objectives) for the reasons we have outlined in our comments on Alternatives B and C above.

Q3 In answering questions 1 and 2 it would be helpful if respondents could provide any specific views on:
i) Categorisation
See comments above.
ii) The overall framework proposed by CAP076

We believe that the overall framework of proposed changes under CAP076 (along with the associated changes under the CUSC, Grid Code and BSC) are not required as the existing market arrangements (of paying as bid) should be adhered to.

We agree with the sentiment expressed in section 6.2 of the consultation document that all intertrips should be dealt with under commercial terms as there is always an economic trade-off to be considered between the likely costs and risks an intertrip presented to the Generator and any alternative actions that could be taken by NGT.

We further believe, in respect of the balancing mechanism exposure, that in the event of an intertrip that a Generator should be held whole for a period of time beyond just gate closure (i.e. that NGT should be responsible for procuring any amount required to 'balance' the Generator in question to avoid the inequity of that Generator becoming a 'distressed buyer' by virtue of an action taken directly by NGT (in arming/firing an intertrip)).

iii) The remuneration mechanism proposed by CAP076 or the WGAAs

We note that neither CAP076 (original) or the four alternatives would pay the Generator affected by the intertrip all costs or at the prevailing market value and therefore it may be that the Generator in question could potentially seek to make a claim for compensation (by virtue of Article 1 of the First Protocol of the European Convention on Human Rights) based on a lack of recompense of costs incurred or of the market value (which in the absence of any other information would appear to be their Bid or Offer price).
Q4 Do you agree with the legal drafting to support CAP076 original and each of the 4 WGAAs?
It appears to cover the matter at hand.

regards
Garth Graham
Scottish and Southern Energy

Reference	CAP076 – CR – 09
Company	Teeside Power Limited

Teesside Power Limited Response to the CUSC Consultation on the Treatment of System to Generator Intertripping Schemes

Teesside Power Limited (TPL) welcomes the opportunity to comment on CUSC Amendment Proposal 076 - Treatment of System to Generator Intertripping Schemes.

TPL notes that there are currently a number of "live" consultations that would affect Generators who require non-commercial intertrip schemes and we therefore believe that no consultation can be reviewed in isolation and that the Authority should make consistent decisions on such consultations in parallel. On this basis TPL believe that CAP076 must be considered alongside Elexon Modification Proposals P175 and P177 and the NGC ABSVD BSAD Methodology Consultation. TPL notes that Final Modification reports for Elexon Modification Proposals P175 and P177 are available on the Elexon website with a recommendation that these proposals are not implemented.

We also note that the various consultations relate specifically to non-commercial intertrip schemes specified in each party's Bilateral Connection Agreement (BCA).

Whilst TPL generally agrees with the principles outlined in CAP076, the following observations relate to the treatment of Category 2 intertrips.

The original CAP076 proposal appears to transfer imbalances from the Generator's account using the ABSVD Methodology. TPL appreciates that NGC are consulting on this through a separate process. We believe that Generators should be given adequate time to return to PN level, hence 24 hours would be a more appropriate proposal than the Balancing Mechanism Window given the complexity of returning a large plant to normal service following a sudden unplanned disruptive event. Some plant would typically be subject to timed lockouts and interlocks for example.

The original CAP076 proposal suggests values of Tripping Fees. TPL does not believe that it is clear what fee would be payable to CCGTs. The outcome of the consultation on ABSVD must also be considered prior to setting the Tripping Fee. The longer a Generator's imbalances are transferred means that they have less of a requirement to purchase power to cover the shortfall. (i.e. if an intertrip operates and imbalances can be transferred for 24 hours, if the fault is corrected after an hour and the generating unit has returned to PN after a further 8 hours, the Generator has returned to PN without having to purchase power to cover its position. However, if the imbalance can only be transferred for 4 hours, the Generator would have had to purchase power for 5 hours). TPL believes that it is fairest to the Generator to transfer the imbalances for up to 24 hours, ensuring that the Generator in no better or worse financial position than it would have been had the fault not arisen.

24 hours is a reasonable period for return to service of a complex plant following a sudden and unplanned trip such as an intertrip and is also an appropriate window to enable purchases to be made recognising that at weekends, for example, the market may be illiquid.

The CAP076 consultation document recognises that the removal of exposure to imbalance through the ABSVD Methodology is conditional upon changes being introduced to the BSC to remove the requirement for the System Operator to issue a corresponding bid-offer

acceptance when an intertrip operates. The authority will need to ensure that there is no double counting of cashflows through the BSUoS Charging.

Whilst the original CAP076 proposal would provide the Generator with a nominal annual capability payment and a tripping fee, there is no mechanism to allow for any additional or consequential losses that Generators may incur. The CAP076 proposal relates to non-commercial intertrip schemes as specified in the Generator's Bilateral Connection Agreeme (BCA). As the scheme is non-commercial, TPL believes that for Category 2 intertrip schemes, a party should be held neutral to any additional/consequential costs incurred as a result of the operation of the scheme and hence a better solution may be to set costs on a cas by case basis. If this were not the case, the generator would be exposed to a risk over which it would have no control. It is therefore more appropriate that the System Operator (who is best placed to manage such risk) should carry such costs.

WGAA A suggests that an arming fee be paid to the Generator based on insurance premium where the insurance premium would be calculated based on one or more sources who would be willing to take the risk. There is also a suggestion that NGC could indemnify the generator and set the arming fee to zero. TPL has concerns about the logistics of a Generato putting in place such insurance when

(1) there is no guaranteed arming fee to put the insurance in place for a year, and,
(2) the intertrip may be armed and disarmed frequently that Generators may incur difficultie in putting in place insurance in the tight timescales,
(3) there may be a limited number of insurers willing to take such risk particularly where it would be perceived that NGC, rather than the Generator, would be best placed to manag or control such risks.

Given these concerns, it would be more appropriate for NGC to indemnify the Generator.

Conclusion
TPL agrees with the principle of introducing new arrangements for the treatment of non-commercial intertrips specified in each parties BCA. TPL also considers that of the options presented in the consultation document and consistent with the preference of the majority of the CAP076 working group, WGAA D best meets the CUSC Applicable Objectives.

Finally TPL considers that in the case of Commercial Intertrip Schemes, the parties should b free to conclude whatever arrangements they consider most appropriate for their circumstances.

Reference	CAP076 – CR - 10
Company	Association of Electricity Producers

CAP 076 Treatment of System to Generator Inter-tripping Scheme
Response from the Association of Electricity Producers

16 February 2005

Category 1 Inter-trips:

The Association does not usually respond to CUSC amendment consultations. In this case our response is limited to one area of the proposals for mandatory inter-trips: the categorisation of the inter-trips. In particular, members of the Association have raised concerns about Category 1 described in section 3.7-3.9 of the consultation report.

It should be noted that at present NGC states categorically that there are no category 1 inter-trips in existence on the England and Wales Transmission system and that these inter-trips facilitate a Variation to Design and do not reduce the security of the transmission system as a whole. However, for the generator, who may be either a new connectee, or a generator wishing to expand its capacity, there is an obvious reduction in the security of their access to the Transmission System. Because of the change to the 'plug and socket' approach to connection charging, it is extremely unlikely that the connection costs for the generator would be materially different if they had a category 1 inter-trip, or not. The alternative to the inter-trip would be some reinforcement of the infrastructure and such costs would be shared amongst all users of the transmission system. Therefore it is unlikely that the generator would experience a materially changed TNUoS if a category 1 inter-trip was installed.

In the event that a category 1 inter-trip fires, the generator is likely to go into imbalance and additionally, will receive no compensation for loss of access to the Grid.

Overall, the effect of installing a category 1 inter-trip would be to materially reduce the security of access for the generator, throughout its life, without any material reduction in connection costs, and at most a small smeared change in TNUoS. In effect NGC would be offering two classes of TEC for the same price. This would be discriminatory.

In the consultation document, category 1 inter-trip is said to arise in the circumstances of a generator exercising an option to seek variation to Connection Design. However, as the inter-trip would conform with the SQSS and '*would not reduce the security of the transmission system as a whole, affect a third party, or compromise NGC's ability to meet other statutory or licence obligations*', it is difficult to see why it would not become the method of connection of choice for NGC under normal connection. This is particularly the case because an inter-trip is very likely to be cheaper than infrastructure reinforcement and hence satisfy NGC's licence obligation to demonstrate that they achieve the most cost-effective development of the transmission system.

We seek assurance that if such a discriminatory, second class TEC continues as part of the CUSC amendment, it can only arise as an acknowledged second best to the normal offer of commercially firm TEC and in response to a generator request.

Reference	CAP076 – 11
Company	British Wind Energy Association

CAP 076 Treatment of System to Generator Inter-tripping Scheme
Response from the Association of Electricity Producers

16 February 2005

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