



DRAFT FOR COMMENT

Comments should be sent to
Cusc.Team@uk.ngrid.com by 23rd
March 2009 at 2pm

Please make reference to CAP170 in
the subject of your email.

Please note this Amendment Proposal is being processed as urgent. Therefore, as directed by the Authority, the following timetable applies:

- Amendment Proposal raised and approved as urgent 27/02/09
- Amendment submitted to Company Consultation 03/03/09
- Close of Company Consultation 13/03/09
- Draft Amendment Report circulated to Industry 18/03/09
- Panel undertake recommendation vote 23/03/09
- Final Amendment Report submitted to the Authority 25/03/09

AMENDMENT REPORT VOLUME 1

CUSC Amendment Proposal CAP170

Category 5 System to Generator Operational Intertripping Scheme

The purpose of this report is to assist the Authority in their decision of whether to implement Amendment Proposal CAP170

Amendment Ref	CAP170
Issue	0.1
Date of Issue	18/03/09
Prepared by	National Grid

I DOCUMENT CONTROL

a National Grid Document Control

Version	Date	Author	Change Reference
0.1	18/03/09	National Grid	Draft for industry comment
0.2		National Grid	Draft for Panel Comment following the Vote
1.0		National Grid	Formal version for submission to the Authority

b Distribution

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

II CONTENTS TABLE

1.0	SUMMARY AND RECOMMENDATIONS	3
2.0	PURPOSE AND INTRODUCTION	4
3.0	PROPOSED AMENDMENT	5
4.0	ASSESSMENT AGAINST APPLICABLE CUSC OBJECTIVES	8
5.0	PROPOSED IMPLEMENTATION	9
6.0	IMPACT ON THE CUSC.....	9
7.0	IMPACT ON INDUSTRY DOCUMENTS	9
8.0	INDUSTRY VIEWS AND REPRESENTATIONS.....	11
9.0	COMMENTS ON THE DRAFT AMENDMENT REPORT	20
10.0	AMENDMENTS PANEL RECOMMENDATION	20
11.0	NATIONAL GRID VIEW.....	20
	ANNEX 1 – PROPOSED LEGAL TEXT TO MODIFY THE CUSC.....	27
	ANNEX 2 – AMENDMENT PROPOSAL FORM.....	33
	ANNEX 3 – CAP170 REQUEST FOR URGENCY	38
	ANNEX 4 – AUTHORITY DECISION ON URGENCY	39

1.0 SUMMARY AND RECOMMENDATIONS

Executive Summary

- 1.1 CAP170 - Category 5 System to Generator Operational Intertripping Scheme was submitted to the Amendments Panel for consideration on the 27th February 2009. The proposer requested that the Amendment Proposal be considered as an Urgent Amendment Proposal, on the basis that the nature of the proposal exhibits the following characteristics:
 - The proposal is linked to an imminent date related event; and
 - There is a very real likelihood of significant commercial impact upon, NGET, industry parties, or customers if the Amendment Proposal is not treated as urgent.
- 1.2 The Panel agreed by majority that the amendment merited urgent treatment and, along with a proposed timetable, requested approval as such by the Authority. The Authority approved the urgent request, and proposed a slightly more constrained timetable to facilitate submission of the Amendment Report to the Authority by 25th March 2009.
- 1.3 CAP170 seeks to introduce a new category of System to Generator Operational Intertripping Scheme to cover intertrips capable of being armed with respect to a derogated non-compliant transmission boundary (as specified in the definition – see 1.4).
- 1.4 Category 5 intertripping scheme would be defined as an intertripping scheme required to alleviate thermal overloads, unacceptable voltage conditions or power system instability arising out of an event which results in the interruption of powerflow on a circuit (or circuits) that form part of a derogated non-compliant transmission boundary, and can only be armed in respect of such a boundary.
- 1.5 A derogated non-compliant transmission boundary would be defined as a transmission circuit (or circuits) forming part of the GB transmission system subject to an Authority approved derogation to the GB Security and Quality of Supply Standards (GBQSS).
- 1.6 It is the proposer's intention that category 5 intertripping schemes will be specified in the F3 appendix of the relevant Bilateral Agreements, and applied to existing and/or new intertrip providers identified as being capable of being armed in respect of a derogated non-compliant transmission boundary.
- 1.7 It is proposed that the category 5 intertripping schemes, as specified in the F3 appendices of the relevant Bilateral Agreements, would receive remuneration in line with the existing categories 2 and 4 as administered by the CUSC (i.e. an annual Capability Payment, an Intertrip Payment following trip and a Restricted Export Level Payment following a trip).
- 1.8 At derogated non-compliant transmission boundaries the need to take action to manage constraints is more onerous than at compliant transmission boundaries. As such, the use of intertrips (assuming it is more economic than alternative Bid-Offer action to constrain generation pre-fault) is a

necessity rather than an occasional tool in order to maximise flows across the derogated non-compliant transmission boundary.

- 1.9 Whilst intertrips are armed pre-fault, the principal cost is incurred post-fault following tripping. Therefore, based on the low probability of tripping they should represent an economic and efficient means for managing constraints as opposed to the alternative Bid-Offer action to constrain generation pre-fault. The proposer of CAP170 believes that administering prices for intertrips capable of being armed in respect of derogated non-compliant transmission boundaries would offer a useful means to limit potential constraint costs, thereby facilitating competition through limiting the potential BSUoS costs, as well as allowing for the economic and efficient operation of the system.

Industry Responses

- 1.10 Fourteen non-confidential responses were received following the Company Consultation and there is limited industry support for CAP170. A number of concerns were raised, in particular regarding the urgency process. A summary of responses and main concerns are detailed within section 9 and National Grid has addressed the concerns in section 10.

Amendment Panel Recommendation

- 1.11 *To be completed following vote on 23rd March 09*

National Grid Recommendation

- 1.12 National Grid as proposer of CAP170 considers that it merited progress via the urgent amendment process and would better achieve the CUSC Applicable Objectives. National Grid believes that administering the costs for intertrips capable of being armed with respect to non-compliant derogated boundaries will provide the potential for National Grid to manage constraints in a more efficient and effective manner.

2.0 PURPOSE AND INTRODUCTION

- 2.1 This Amendment Report has been prepared and issued by National Grid under the rules and procedures specified in the CUSC as designated by the Secretary of State.
- 2.2 Further to the submission of Amendment Proposal CAP170 (see Annex 2) 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 CAP170.
- 2.3 CAP170 was proposed by National Grid and submitted to the CUSC Amendments Panel for consideration at the meeting on 27th February 2009. Following majority agreement by the Panel, CAP170 and the requested urgent timetable were submitted to the Authority for approval. The Authority approved the urgent request, and proposed a slightly more constrained timetable to facilitate submission of the Amendment Report to the Authority by 25th March 2009. The timetable is detailed below:

- Amendment Proposal raised and approved as urgent 27/02/09
- Amendment submitted to Company Consultation 03/03/09
- Close of Company Consultation 13/03/09
- Draft Amendment Report circulated to Industry 18/03/09
- Panel undertake recommendation vote 23/03/09
- Final Amendment Report submitted to the Authority 25/03/09

2.4 This document outlines the nature of the CUSC changes that are proposed and incorporates National Grid's recommendations to the Authority concerning the Amendment. Copies of each of the responses to the consultation are included as Volume 2 and a summary of the representation is contained within.

2.5 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 www.nationalgrid.com/uk/Electricity/Codes/.

3.0 PROPOSED AMENDMENT

3.1 CAP170 was raised alongside a request for its treatment as an Urgent Amendment Proposal. The proposer considers that the nature of the proposal exhibits the following characteristics to justify its urgency:

- The proposal is linked to an imminent date related event; and
- There is a very real likelihood of significant commercial impact upon NGET, industry parties, or customers if the Amendment Proposal is not treated as urgent.

3.2 On the 17th of February 2009 Ofgem wrote to National Grid asking National Grid to conduct an urgent review to consider (and if appropriate consult on) whether urgent changes to the existing commercial and charging arrangements for access to the GB transmission system are necessary before the next charging year (starting April 2009). Moreover, as Ofgem indicate in this letter, the rate at which constraint costs are incurred will increase significantly in the next few weeks (when the planned Cheviot outage programme commences). Therefore, the proposer believes that this proposal is linked to an imminent date related event.

3.3 Furthermore, the Amendment Proposal seeks to limit the price of intertrips capable of being armed only with respect of derogated non-compliant transmission boundaries, and in doing so limit the potential contribution to constraint costs. As all industry parties are charged for the cost of constraints, and this charge is ultimately passed on to consumers, this Amendment Proposal also has the potential to have significant commercial impact on both the industry and consumers.

3.4 The Panel (by majority) and the Authority both agreed that the proposal should be treated as urgent.

3.5 At derogated non-compliant transmission boundaries the need to take action to manage constraints is more onerous than at compliant transmission boundaries. As such, the use of intertrips (assuming it is more economic than alternative Bid-Offer action to constrain generation pre-fault) is a necessity rather than an occasional tool in order to maximise flows across the

derogated non-compliant transmission boundary. This can be demonstrated by the volume of constraints at the Cheviot boundary (presently the only derogated non-compliant transmission boundary¹) which is forecast to outturn at 3127 GWh in 2008/09 and compares to the rest of England, Wales and Scotland which is forecast to outturn at 1849 GWh in 2008/09. Further, the cost of managing constraints on the Cheviot boundary is forecast to outturn at £153m in 2008/09, whereas the rest of England, Wales and Scotland are forecast to outturn at £85m in 2008/09.

- 3.6 One tool available to National Grid, as System Operator, to manage constraints is the use of intertrips. Whilst intertrips are armed pre-fault, the principal cost is incurred post-fault following tripping. Therefore, based on the low probability of tripping they should represent a more economic and efficient means for managing constraints than the alternative Bid-Offer action to constrain generation pre-fault. Administering prices for intertrips capable of being armed in respect of derogated non-compliant transmission boundaries would offer a useful means to limit potential costs.
- 3.7 Therefore, CAP170 seeks to introduce a new category of System to Generator Operational Intertripping Scheme to cover intertrips capable of being armed only with respect to derogated non-compliant transmission boundaries (as specified in the definition - see 3.6).
- 3.8 A category 5 intertripping scheme would be defined as an intertripping scheme required to alleviate thermal overloads, unacceptable voltage conditions or power system instability arising out of an event which result in the interruption of powerflow on a circuit (or circuits) that form part of a derogated non-compliant transmission boundary, and can only be armed in respect of such a boundary.
- 3.9 A derogated non-compliant transmission boundary would be defined as a transmission circuit or circuits forming part of the GB transmission system subject to an Authority approved derogation to the GB SQSS.
- 3.10 It is the proposer's intention that category 5 intertripping schemes will be specified in the F3 appendix of the relevant Bilateral Agreements, and applied to existing and/or new intertrip providers capable of being armed in respect of a derogated non-compliant transmission boundary.
- 3.11 A methodology will be used to determine which Users will be required to provide category 5 intertripping schemes. Such a methodology will be based upon a cost-benefit analysis, considering aspects such as installation costs and the cost associated with the administered scheme. National Grid believes that this methodology should form part of the Procurement Guidelines and is subject to a separate consultation process. The industry consultation can be found on National Grid's website² and the deadline for responses is 9th April 2009.
- 3.12 Such schemes will be in place under these arrangements until such time as the nature of the boundary changes (i.e. the derogation is removed).

¹ Information on the derogation is available on Ofgem's website:
http://epr.ofgem.gov.uk/document_fetch.php?documentid=11759
http://epr.ofgem.gov.uk/document_fetch.php?documentid=11777

² <http://www.nationalgrid.com/uk/Electricity/Balancing/consultations/>

- 3.13 If a decision to implement this Amendment Proposal is made, changes to the F3 appendices of the relevant Bilateral Agreements would be required to reflect the requirement to provide the category 5 intertripping scheme.
- 3.14 Legal drafting has been added to CUSC Section 4 to deal with the implementation process for CAP170 and has been provided to facilitate the issuing of amended Appendix F3s to the Bilateral Agreement to relevant Users, see Annex 1. This process envisages, upon identification of a requirement for a category 5 intertripping scheme, National Grid issuing agreements to vary the relevant Bilateral Agreements with amended Appendix F3s providing details for the category 5 intertripping scheme. The relevant User would either sign and return the varied Bilateral Agreement or make a referral to the Authority for the terms to be settled. Following determination by the Authority National Grid would, where applicable, sign the agreement to vary on the User's behalf, in accordance with the variation clause in the Bilateral Agreement.
- 3.15 The category 5 System to Generator Operational Intertripping Scheme will be administered via the generic terms within the CUSC and Grid Code. As with categories 1-4, site specific technical details will be included in the relevant F3 appendix of the Bilateral Agreement.
- 3.16 It is proposed that the category 5 System to Generator Operational Intertripping Scheme, as specified in the F3 appendices of the relevant Bilateral Agreements, will receive remuneration in line with existing arrangements for the Category 2 and 4 System to Generator Operational Intertripping Schemes as detailed in the CUSC. This payment includes:
- An annual Capability Payment for the installation and right to arm the scheme covering costs such as additional staff training, upkeep of policies and procedures;
 - An Intertrip Payment covering costs of wear and tear following a trip (and excludes all other consequential costs such as lost profit); and
 - A Restricted Export Level Payment following tripping should National Grid be unable to restore the Transmission capacity within 24 hours following the trip.
- 3.17 These payment terms were proposed by the Working Group during the CAP076 development process, having been considered by the Working Group to be cost-reflective and offer appropriate terms for remuneration.

4.0 ASSESSMENT AGAINST APPLICABLE CUSC OBJECTIVES

4.1 The tables below details the views of the proposer and respondents to CAP170 Company Consultation in relation to the facilitation of the CUSC Objective(s):

- (a) the efficient discharge by the Licensee of the obligations imposed upon it by the act and the Transmission Licence; and
- (b) facilitating effective competition in generation and supply of electricity and facilitating such competition in the sale, distribution and purchase of electricity.

Proposers view Promotes applicable objective (a)	Respondents view(s) Demotes applicable objective (a)
<ul style="list-style-type: none"> ▪ Facilitating economic and efficient use of all intertrips which are capable of being armed with respect to derogated non-compliant transmission boundaries ▪ Clarifying the responsibility and remuneration for intertrips capable of being armed with respect to derogated non-compliant transmission boundaries ▪ Removing National Grid and industry exposure to the consequences of the operation of bilaterally negotiated schemes capable of being armed with respect to derogated non-compliant transmission boundaries 	<ul style="list-style-type: none"> ▪ Disproportionate solution for the defect and is not required as the current provisions offer an economic and efficient way to use and operate intertrips ▪ Fails to clearly define specific system or competition related requirements for intertrip scheme ▪ Sets a precedent for commercial services becoming administered and undermines future commercial services ▪ Detrimental to the efficient management of costs with respect to the efficient management of TO outages

Proposers view Promotes applicable objective (b)	Respondents view(s) Demotes applicable objective (b)
<ul style="list-style-type: none"> ▪ Ensuring an enhanced level of market certainty with regards to processes, responsibilities and remuneration for intertrips capable of being armed with respect to derogated non-compliant transmission boundaries ▪ Limiting the potential BSUoS cost for all parties, by limiting the cost of intertrips capable of being armed with respect to derogated non-compliant transmission boundaries 	<ul style="list-style-type: none"> ▪ Disproportionate solution for the defect ▪ Barrier to market entry, as CAP170 could impact investor confidence to invest in new power stations, which could in turn reduce competition and in the longer term risk security of supply ▪ Discriminates between generators and restricts the opportunities available to generators behind a derogated boundary to participate in commercial intertrip arrangements ▪ Administered prices limits competition

	<ul style="list-style-type: none">▪ Compensation does not differentiate by technology or other circumstances and does not include all generators costs, as a consequence it is not fully cost reflective▪ Distorts competition in the GB market for the provision of commercial intertrips and the balancing mechanism
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5.0 PROPOSED IMPLEMENTATION

- 5.1 National Grid proposes that CAP170 should be implemented immediately upon a decision to do so being made by the Authority. In accordance with 8.19.3(b), views were invited on this proposed implementation date and no specific comments regarding implementation were received.
- 5.2 The change introduced by this Amendment Proposal would be applicable to existing and new providers.
- 5.3 Legal drafting has been added to CUSC section 4 to deal with the implementation process for CAP170 has been provided to facilitate the issuing of amended Appendix F3s to the Bilateral Agreement to relevant Users, see Annex 1. This process envisages that, upon identification of a requirement for a category 5 intertripping scheme, National Grid would issue agreements to vary the relevant Bilateral Agreements with amended Appendix F3s providing details for the category 5 intertripping scheme. The relevant User would either sign and return the varied Bilateral Agreement or make a referral to the Authority for the terms to be settled. Following determination by the Authority National Grid would, where applicable, sign the agreement to vary on the User's behalf, in accordance with the variation clause in the Bilateral Agreement.

6.0 IMPACT ON THE CUSC

- 6.1 CAP170 requires amendment to Section 4.2A and Schedule 4 of the CUSC. It will also require the introduction of additional definitions to facilitate these changes.
- 6.2 The text required to give effect to the Amendment Proposal is contained as Annex 1 of this document.

7.0 IMPACT ON INDUSTRY DOCUMENTS

Impact on Core Industry Documents

- 7.1 CAP170 has a consequential impact upon the Grid Code due System to Generator Intertripping Schemes and the associated categories being defined in the Grid Code. Changes required to the Grid Code including, but are not limited to, the following:

- A new definition for category 5 intertripping scheme;
- A new definition for derogated non-compliant transmission boundary;
- Amendment to the existing definition for System to Generator Operational Intertripping Scheme; and
- Amendment to the existing definition for System to Generator Operational Intertripping.

Impact on other Industry Documents

7.2 CAP170 has an impact upon the relevant Bilateral Agreements which would require amendment as a result of this Amendment Proposal. A section to deal with the implementation process for CAP170 has been provided as outlined in the Proposed Implementation section 5 of this consultation.

7.3 CAP170 also requires modification to the Procurement Guidelines to introduce an appropriate methodology to determine providers of category 5 intertripping scheme. National Grid is consulting separately on these proposals in line with clause 3 (b) of Condition C16 of NGET's Electricity Licence.

8.0 INDUSTRY VIEWS AND REPRESENTATIONS

8.1 The following table provides an overview of the representations received.
Copies of the representations are contained in Amendment Report Volume 2.

Reference	Company	Supportive	Comments	Key Areas of Concern
CAP170-CR-01	Association of Electricity Producers	No	<ul style="list-style-type: none"> - Significant increase in constraint costs is a cause for concern, but puzzled as to why issue was not raised for review before mid-February - Would appreciate additional information on why NGET's use of commercially negotiated intertrips has been defective - Would welcome early indication of industry involvement in NGET's work on alignment of SO-TO incentives and timetable for implementation - Further detail on methodology would be appreciated 	<ol style="list-style-type: none"> 1. Urgency 2. Regulatory Impact Assessment 3. Changes to Bilateral Agreements (precedent of change without agreement, impact on ability to attract investment) 4. Methodology (not sufficient information to understand full impact) 5. Validity of derogation
CAP170-CR-02	British Wind Energy Association	Lack sufficient information to come to a view on merits or otherwise of CAP170	<ul style="list-style-type: none"> - CAP170 merits a longer timescale for review - Concern that CAP170 may result in forced installation of an intertrip scheme at any time 	<ol style="list-style-type: none"> 1. Urgency 2. Payment terms (including compensation regarding lost energy sales and lost ROCs, potential different treatment by technology) 3. Queue Advancement 4. Regulatory Impact Assessment

CAP170-CR-03	Centrica	No	<ul style="list-style-type: none"> - Support actions to address forecast constraint costs, but consider there are a number of serious consequences arising as a result of the proposal - Due to timescales Centrica has been unable to conduct a detailed review of the complex legal issues of the proposed changes - Urgent review of all existing commercial contracts required (when due to end, and break clauses) and shared with Ofgem and industry - More consideration on the longer term implications required, especially the way in which it would be implemented, priced and operated - Greater consultation surrounding intertrips as a whole required to ensure affected parties are treated fairly whilst ensuring investment in the network remains an attractive proposition - If implemented would urge that it is done on a time limited basis 	<ol style="list-style-type: none"> 1. Urgency 2. Changes to Bilateral Agreements (removal of any ability to refuse variations to BA, associated regulatory uncertainty, changing nature of current, legitimate, commercially negotiated agreements) 3. Other means used by NGET to reduce impact of constraints (to demonstrate all reasonable steps have been taken to minimise impact of outages) 4. Methodology (account of generators costs) 5. Payment terms (review of standard payments required) 6. Merit order for use of intertrip
CAP170-CR-04	DONG Energy A/S on behalf of DONG Walney (UK) Ltd, Gunfleet Sands Ltd and Gunfleet Sands II Ltd.	Neither support/not support	<ul style="list-style-type: none"> - No comment on the principles behind the new category of intertrip - Propose additional amendment with regards to down regulation (in relation to Grid Code modification F/08) 	

CAP170-CR-05	EDF Energy	No	<ul style="list-style-type: none"> - Could only support CAP170 if it targeted only those parties found to be exercising market power - CAP170 proposes fundamental changes to the GB market structure that fail to tackle the underlying causes of high constraint costs - Process does not permit adequate industry considerations of issues involved - Although CAP170 has potential to reduce constraint costs, it is too wide-ranging - Urgency will sacrifice speed for quality of solution - Legal Text (defective and contradictory) 	<ol style="list-style-type: none"> 1. Urgency 2. Changes to Bilateral Agreements (Administering commercial arrangements, associated regulatory uncertainty, dangerous precedent) 3. Demonstration of defect (not adequate) 4. Payment terms (takes no account of the true cost to the generator, CAP076 terms not cost-reflective and price discriminatory for different classes of generator) 5. Regulatory Impact Assessment 6. Merit order for use of intertrip 7. Methodology (not transparent, could be discriminatory)
CAP170-CR-06	E.ON UK and E.ON Energy Trading.	No	<ul style="list-style-type: none"> - The changes required by the proposal are complex and merit Working Group development - Unclear why proposal is drafted so widely if the issue relates to a specific part of the network - Any change introduced with so little time for consideration and consultation should be drafted as tightly as possible to address the exact difficulty perceived – this principle has not been followed in the preparation of CAP170 	<ol style="list-style-type: none"> 1. Urgency 2. Demonstration of defect 3. Changes to Bilateral Agreements (retrospective application, regulatory uncertainty, unacceptable precedent, unclear treatment of commercial arrangements post CAP170 implementation) 4. Methodology (inherently part of proposal, should also cover generator costs) 5. Validity of derogation 6. Payment Terms (may not be appropriate for all technologies, require review)

CAP170-CR-07	International Power (IPR) on behalf of First Hydro Company, Saltend Cogeneration Company Ltd, Rugeley Power Ltd, Deeside Power Development Company Ltd and Indian Queens Power Ltd.	No	<p>- Share industry concern over the rising costs of constraints. The issues around constraints are significant; fuller debate and consultation with market participants is warranted</p> <p>- Do not support the proposal which seeks to remunerate certain commercial intertrip services via an administered payment route, and utilise these services as a more routine tool for managing network constraints</p> <p>- Commercial intertrips should only be entered into by willing participants and not forced upon users of the transmission system without their consent</p> <p>- It is not acceptable to impose on generators a significant risk of disconnection from the system with minimal levels of compensation</p>	<ol style="list-style-type: none"> 1. Urgency 2. Administering commercial agreements (invalidated by CAP170, worrying precedent, impact on the principle of market based solution) 3. Payment terms (including installation costs) 4. Implications of intertrips on different breakers
CAP170-CR-08	Nuclear Decommissioning Authority	Neither support/not support	<p>- The NDA could be indirectly affected by the proposal, as they are clearly intended to limit certain constraint costs, and hence may reduce BSUoS charges for all users</p>	<ol style="list-style-type: none"> 1. Urgency 2. Payment terms (not cost reflective for all parties) 3. Methodology (considering cost to generator) 4. Changes to Bilateral Agreements (compulsory retrospective change)

CAP170-CR-09	Renewable Energy Association	Neither support/not support	<p>- REA has been an enthusiastic supporter of the use of intertripping schemes in order to make the most efficient use of the transmission system capability and therefore agrees with the principle encouraging their wider use</p>	<ol style="list-style-type: none"> 1. Payment terms (clause required to reflect if any greater costs are incurred) 2. Administering commercial arrangements (not acceptable that these are amendment based on CAP170)
CAP170-CR-10	On behalf of the RWE group of companies, including RWE Npower plc, RWE Supply and Trading GmbH and RWE Innogy.	No	<p>- Measures introduced with haste to address the costs may have wider ramifications and implications when considered in a GB context</p> <p>- If the current commercial intertrip provision had been considered to be economic and efficient RWE would question whether CAP170 is capable of delivering any additional savings without increasing costs elsewhere on the GB transmission system.</p> <p>- Unclear technical reason for category 5</p> <p>- Concerned with the voluntary provision of an intertrip service being translated to a compulsory scheme</p>	<ol style="list-style-type: none"> 1. Requirement for intertrip (only for outages) 2. Demonstration of defect (inadequate, information on constraint savings) 3. Administering commercial arrangements (when costs are high in the SO view, precedent of changing) 4. Remove incentive for SO to develop innovative products and services

CAP170-CR-11	On behalf of ScottishPower Energy Management Ltd, ScottishPower Generation Ltd and ScottishPower Renewable Energy Ltd.	No	<ul style="list-style-type: none"> - Inappropriate for the industry to have been asked to consider such a fundamental change in a severely restricted and inadequate timescale - Proposal has the potential to profoundly impact investment in generation and network infrastructure - Competitive pricing mechanism is designed to encourage new entry to the market – clearly happening at the moment, so should be allowed to develop - The inadequacy of transmission infrastructure on the Cheviot boundary has not arisen as a result of the actions of generators. NGET has obligation to ensure adequate investment is made and has failed to fulfil this responsibility as evidenced by the existing level of constraints and projections - Risk of distorting incentive on transmission owners and operators to invest - Question lawfulness of the amendment 	<ol style="list-style-type: none"> 1. Urgency 2. Discrimination (against generation in Scotland, restrict ability to participate in commercial arrangements, distortion of competition) 3. Administering commercial arrangements (regulatory uncertainty, deter investment, may compromise Security of Supply) 4. Payment terms (no analysis provided to demonstrate appropriateness for category 5, single payment value cannot be considered cost reflective) 5. Merit order for use of intertrip 6. Demonstration of defect (not adequate) 7. Requirement for intertrip (as a necessity is inaccurate and disregards the range of commercial alternatives available) 8. Methodology (key element to enable evaluation, insufficient time to consider before submitting CAP170 response) 9. Changes to Bilateral Agreements (Already sufficient provision within the CUSC to amend BAs)
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CAP170-CR-12	Scottish Renewables	No	<p>- Does not agree with CAP170 approach but would support sensible measure to manage constraint costs</p> <p>- Whilst renewable generators benefiting from Queue Advancement might agree to intertripping, Scottish Renewables are not convinced this justifies the significant changes being proposed – would prefer this were negotiated on a commercial, bilateral basis</p> <p>- Temporary nature of the problem (As the concerns about constraints relate in a large part to the need for reinforcement to the Cheviot boundary)</p>	<ol style="list-style-type: none"> 1. Urgency 2. Interaction with TAR 3. Payment Terms (compensation for loss of income, loss of ROCs) 4. Demonstration of other means to reduce constraint costs 5. Changes to Bilateral Agreements (uncertainty for investors)
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CAP170-CR-13	On behalf of Keadby Generation Ltd.; SSE Energy Supply Ltd.; SSE Generation Ltd.; Medway Power Ltd.; Slough Energy Supplies Ltd.; Airtricity Ltd. and Airtricity Generation (UK) Ltd.	No	<p>- Ofgem determined the Cheviot intertrips as commercial</p> <p>- Process through which CAP170 was raised is flawed and has led to a prejudicial proposal that unfairly impacts on SSE's business interests</p> <p>- If implemented would have profoundly negative implications for ongoing investment in new generation and could lead to an adverse impact on the security of electricity supplies in GB as a whole and Scotland in particular</p>	<ol style="list-style-type: none"> 1. Urgency 2. Demonstration of defect 3. Discrimination (in nature and application - discriminatory against Scottish generators, removes ability for generators in Scotland to compete on equal terms) 4. Methodology (not provided and fundamental, must take account of generator costs, timing post implementation/application of derogation) 5. Commercial Agreements (unreasonably and retrospectively altering, undermine investor confidence, no way to refuse/withdraw from contract) 6. Validity of derogation? 7. Merit order for use of intertrip 8. Changes to Bilateral Agreements (Agreement to vary clause not intended for use in this way) 9. Payment terms (do not cover consequential losses) 10. Implications of intertrips on different breakers (uncertainty about where liability rests, retrospectively alters contractual terms of those related agreements)
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CAP170-CR-14	Uskmouth Power	No	<p>- Do not feel proposal should be approved until the details of the scheme have had proper consideration by the industry</p> <p>- If approved, Ofgem should ask National Grid to review the associated costs and charging structures before implementation</p> <p>- Negative TNUoS zone would get no refund</p>	<ol style="list-style-type: none"> 1. Urgency 2. Amendment of Bilateral Agreements (forced, should not alter existing contracts) 3. Administering commercial arrangements (has NG satisfied Ofgem that attempts to negotiate appropriate commercial terms for managing boundary issues have been unsuccessful?) 4. Payment terms (pricing mechanism better linked to generators costs may be more equitable, recovery of installation costs) 5. Methodology (should be consulted on, treat generators in an equitable way)
CAP170-CR-15	Private and Confidential			

9.0 COMMENTS ON THE DRAFT AMENDMENT REPORT

9.1 National Grid received # responses following the publication of the draft Amendment Report. The following table provides an overview of each representation. Copies of the representations are contained in Amendment Report Volume 2.

To be completed following close of industry comment

Reference	Company	Summary of Comments
CAP170-AR-01		

10.0 AMENDMENTS PANEL RECOMMENDATION

10.1 *To be completed following vote on 23rd March 09*

11.0 NATIONAL GRID VIEW

11.1 National Grid believes that CAP170, through introducing administered prices for intertrips capable of being armed with respect to derogated non-compliant transmission boundaries, has the potential to significantly limit constraint costs. National Grid considers that this is particularly important given the nature of such boundaries where intertrips are required as a necessity rather than occasional tool in order to maximise the flow across the boundary, as well as allowing for extended periods of outage to facilitate the necessary reinforcement work.

11.2 National Grid also believes that CAP170 will ensure an enhanced level of certainty with regards intertripping schemes capable of being armed with respect to derogated non-compliant transmission boundaries, as well as limiting the potential BSUoS costs for all parties.

11.3 Therefore, National Grid believes that CAP170 would better facilitate competition, as well as allow more economic and efficient operation of the system, and as such, would better facilitate the applicable CUSC objectives.

11.4 Having considered the common themes from the consultation responses National Grid makes the following comments:

11.5 Urgency and Regulatory Impact Assessment

11.5.1 National Grid requested that CAP170 be processed as an Urgent Amendment Proposal (see Annex 3). The Panel, by a majority, recommended to the Authority that CAP170 be given urgent status. The Authority agreed with the Panel that CAP170 should receive urgent status and determined the timetable to be followed. The timetable as directed by the Authority (on the 2nd of March 2009) has been used for processing the proposal (see Annex 4). National Grid acknowledges the concerns raised in response to The Company consultation regarding the limited industry input and the shorter consultation period for CAP170. If implemented, National

Grid would fully support a review of the proposal by Working Group or Standing Group (in line with CUSC section 8.21.1.9), including consideration of any additional drafting suggestions (such as those included in the responses by DONG Energy A/S and Renewable Energy Association).

- 11.5.2 Several respondents commented on the need for the Authority to conduct a Regulatory Impact Assessment (RIA). The decision to conduct a RIA is a matter for the Authority.

11.6 Demonstration of Defect

- 11.6.1 National Grid notes the responses indicating that the defect associated with CAP170 has not been clearly articulated. Unfortunately, given the limited providers of commercial services at the existing derogated non-compliant transmission boundary, National Grid is unable to disclose further information regarding constraint costs and the potential savings associated with CAP170 due to the commercially confidential nature of such additional information. National Grid is only able to direct attention to publicly available information contained within the Balancing Services Monthly Report (<http://www.nationalgrid.com/uk/Electricity/Balancing/>).

- 11.6.2 On 11 March 2009 the Authority issued an information request to National Grid (under NGET's Licence condition B4) requesting additional information from National Grid in relation to constraint management costs. This information has now been provided to the Authority. As such, the Authority has been made aware of the financial justification of the defect.

11.7 Changes to Bilateral Agreements

- 11.7.1 As CAP170 is envisaged to apply equally to new and existing generation, and a fundamental element includes the potential variation of existing Bilateral Agreements. As such, a section has been included in the drafting for the CUSC specifically dealing with the implementation of this. This implementation section duplicates the existing provisions for varying a Bilateral Agreement as a consequence of a CUSC Modification being approved by the Authority. Given the views expressed by the Panel, an explicit section was introduced to clarify the process for Users and the short timescales were specified to accommodate the urgent nature of the CUSC Amendment Proposal.

- 11.7.2 The implementation process allows for an agreement to vary the Bilateral Agreement to be referred to the Authority for determination if necessary. This therefore provides a route for a User to challenge proposed changes to their Bilateral Agreement to include a category 5 intertripping scheme (as per existing arrangements under the CUSC).

- 11.7.3 National Grid acknowledges and fully supports that the GB market is based on the principle of using market based solutions. However, experience with intertrips at non-compliant derogated transmission boundaries indicates that this principle is not delivering the most effective terms, such that administration of certain terms has become necessary. Experience has shown that not only are the costs high, but also that there are limited providers coming forward. As such National Grid has a limited ability to secure sustainable medium/long term contracts resulting in limited effective competition.

- 11.7.4 In response to the suggestion that amending existing Bilateral Agreements as a result of a CUSC Amendment sets an unacceptable precedent, it is worth noting that, although such a route is only rarely required, the variations clause in Bilateral Agreements does envisage that amendments to a Bilateral Agreement could follow a CUSC amendment.
- 11.7.5 Whilst CAP170 includes the potential variation to Bilateral Agreements, the proposal does not introduce an ability to vary commercial ancillary service agreements. Where such agreements have been entered into these are usually put in place for specific periods and/or allow for termination by the relevant parties in certain circumstances. The drafting in CAP 170 does not in itself terminate any commercial arrangements.
- 11.7.6 National Grid acknowledges that some respondents commented that as a result of the potential changes to Bilateral Agreements, CAP 170 may impact on the ability to attract investment to the GB market.

11.8 **Alternative methods to reduce constraint costs**

- 11.8.1 National Grid is incentivised to reduce system operation costs and is always willing to explore innovative ways to reduce the costs incurred through the procurement of Balancing Services. This will not be impacted as a result of CAP170.
- 11.8.2 National Grid has endeavoured to introduce competition in the provision of constraint management services at the existing non-compliant derogated boundary. This has been done through using a variety of tools, such as holding Constraint Management Service tenders, competitive procurement of PGBTs (Pre-Gate BMU Transactions), open procurement of 'capped PN' (Physical Notification) contracts and development of tools to trade across the Moyle interconnector.
- 11.8.3 However, the use of these tools has not achieved as large a reduction in constraint costs as had been hoped. As a consequence National Grid believes that CAP170 offers a meaningful and appropriate tool to manage constraint costs under the current circumstances.

11.9 **Methodology and Derogation**

- 11.9.1 A methodology will be used to determine which Users would be requested to provide category 5 intertripping schemes, considering aspects such as the technical characteristics of the generator, cost of connecting the generator to the intertripping scheme, payment associated with category 5 service provider, size of load, load factor and likelihood of running during a constraint period, anticipated time to return to commercial load following intertrip, and diversity of generation to allow effective management of constraints. National Grid believes that this methodology should be included in the Procurement Guidelines, and as such, is consulting separately on the proposed content of the methodology in line with clause 3(b) of Condition C16 of NGET's Electricity Licence in parallel with the development of CAP170. Through this consultation it is National Grid's intention to gain sufficient industry input to the methodology to ensure it is transparent, non-discriminatory and appropriate.

- 11.9.2 National Grid notes a comment made that only “cursory application” of the methodology would be made. National Grid would like to clarify that the methodology forms a fundamental element of the proposal to ensure that the most appropriate generators are selected for the provision of a category 5 intertripping scheme. As such, the methodology will be fully utilised to make this determination.
- 11.9.3 In applying the agreed methodology, National Grid would envisage engaging fully with the relevant Users to ensure that all appropriate considerations in line with the methodology are taken into account.
- 11.9.4 In considering a request for a further derogation from GB SQSS, the Authority considers and analyses a range of relevant information. National Grid would envisage that the possible application and use of category 5 intertripping schemes would form a significant part of this assessment.³
- 11.9.5 In advance of a derogation being granted, National Grid would give detailed consideration to the potential selection of providers for category 5 intertripping schemes. As a consequence, agreements to vary the relevant Bilateral Agreements with amended F3s (to include a category 5 intertripping scheme) may be issued either prior to, or following, a derogation being granted, in line with the process outlined in section 4.2A.8 of the proposed legal text to modify the CUSC. This would mean that the five day period (as outlined in 4.2A.8) for any future boundary becoming derogated would not be the main period in which the methodology would be considered and applied (as this analysis would be necessary prior to the Authority making a decision).
- 11.9.6 Moreover, following this process, if a User still considers the application of a category 5 intertripping scheme inappropriate, the implementation of CAP170 allows for the terms to be referred to the Authority for settlement.
- 11.9.7 In certain specific circumstances the Authority may grant a derogation against the GB SQSS. Consequently when a derogation is granted to a Transmission company in relation to a specific boundary (i.e. a derogated non-compliant transmission boundary as identified in CAP170) generators connected behind such a derogated boundary are connected to a part of the system that is not fully compliant with GBSQSS. Consequently any generator behind such a derogated boundary might be treated differently by the licensee when procuring balancing services to one on another part of the system which is compliant with the GB SQSS due to these differences. For the reasons stated above we believe that the approach proposed by CAP170 is a proportionate solution with justifiable differential treatment between different classes of generators.
- 11.9.8 National Grid acknowledges responses questioning the impact of CAP170 on the existing B6 boundary derogation, and would like to make clear that National Grid keeps all derogations under constant review.

11.10 Payment Terms

³ In the Authority's decision regarding the existing derogation http://epr.ofgem.gov.uk/document_fetch.php?documentid=11759) in particular the Authority indicated that “We need to further understand the operational measures that are available and/or used by NGET to improve utilisation and/or capability of constrained boundaries on the transmission system.”

- 11.10.1 The payment terms outlined in CAP170 for the category 5 intertripping scheme are in line with those already in place for category 2 and category 4 intertripping schemes. These payment terms were proposed and developed by the Working Group during the CAP076 development process, having been considered by the Working Group to be cost-reflective and offer appropriate terms for remuneration. National Grid acknowledges that additional concerns were raised regarding further compensation, for instance ROCs which were not considered as part of the development of CAP076. If the existing terms were no longer considered to be appropriate any party could raise a CUSC Amendment Proposal to amend these terms. National Grid cannot identify any justifiable reason for a different payment to be applied for the category 5 intertripping scheme. However, if a different payment is required, National Grid would envisage that this would be addressed as part of a review following implementation of CAP170 or raised as a separate Amendment Proposal by an affected party.
- 11.10.2 The tripping fee of £400,000 per generating unit would be paid whenever the scheme operates and is designed to cover wear and tear cost following a trip as well as additional fuel costs. This payment specifically excludes any consequential losses including lost profit, opportunity costs etc.
- 11.10.3 The capability fee, as with categories 2 and 4, was envisaged to cover installation and maintenance costs associated with the User's equipment, as well as the right to arm the appropriate System to Generator Operational Intertripping Schemes. As with the tripping fee, this payment of £30,000 per annum was discussed and developed as part of the CAP076 working group process.
- 11.10.4 Finally, the Applicable Balancing Services Volume Data Methodology Statement (ABSVD) is the mechanism by which volume can be transferred from the energy account of the Service Provider to the Energy Account of the System Operator. The length of time for which intertripped volume is treated under the ABSVD methodology was also considered during the development of amendments to associated documents alongside the CAP076 development process. Under the arrangements which were introduced, generator's imbalance following the operation of an intertrip is removed until the end of the Balancing Mechanism Window. It is anticipated that CAP170 would be applied in the same way as the existing categories of operational intertripping schemes, and as such the same principles in relation to ABSVD would apply, with no requirement for a corresponding ABSVD amendment as a result of CAP170. Again, any amendment to these arrangements (which would likely be applicable to all categories of System to Generator Intertripping Scheme) would be dealt with through appropriate modifications to the relevant statements published by National Grid in accordance with standard condition C16 of the electricity transmission licence, rather than forming part of the assessment of CAP170. If there were sufficient concerns raised in relation to this National Grid would look to consult appropriately on the ABSVD.

11.11 Queue Advancement

- 11.11.1 National Grid notes the responses regarding the application of intertrips for the purpose of 'queue advancement'. Whilst at this stage the precise conditions for such 'queue advancement' have not been confirmed, National Grid considers that CAP170 could offer an equitable solution for the use of intertripping schemes at any future derogated non-compliant transmission

boundaries. Without unduly discriminating against any party, the methodology allows selection of the most appropriate party to provide an intertripping scheme as opposed to requiring specifically that new users advancing in the queue provide the service. CAP170 provides an efficient and cost effective approach to applying intertrips by selecting those most effective in providing the service.

11.12 Interaction with Transmission Access Review

- 11.12.1 Transmission Access Review (TAR) is not due to be implemented until 2010 whilst CAP170 is designed to have immediate effect, thereby directly impacting on constraint costs in advance of the implementation of TAR. As a result of TAR the model for access rights to the transmission system could be fundamentally changed. In line with other services, a review of System to Generator Operational Intertripping Schemes may be required following implementation to ensure that it is still appropriate under the new regime.

11.13 Technical Aspects

- 11.13.1 **Requirement for intertrips** – Intertrips capable of being armed with respect to derogated non-compliant transmission boundaries are not used only under outage conditions, but rather are required in order to maximise all possible flows across the boundary. Thereby facilitating maximum possible access to the transmission system. As such, National Grid would continue to consider the use a necessity to facilitate the economic and efficient operation of the network.
- 11.13.2 **Merit order for use of intertrip** - Both the total volume of generation to be selected to intertrip on a derogated non-compliant boundary, and the precise units that should be armed from the choice of category 5 providers, are operational decisions to be made based on the system conditions at the time, taking into account such factors as:
- the output of category 5 providers' generating units;
 - the efficacy of intertripping a specific unit in improving the constraint limit with respect to the limiting condition(s) at that time; and
 - any disproportionately detrimental effect to the system in the event of a specific generator unit or combination of units being intertripped (e.g. impact of loss of MVA reserves, local constraint issues) when compared to the benefit of arming that generator unit or units.
- 11.13.3 **Arming of an intertrip** - Consideration to arm an intertrip will be given in circumstances where, in the event of a secured event for which the intertrip can be armed, such arming results in the secure transfer of a greater volume of power across a transmission system constraint boundary than would otherwise be achievable. An intertrip would trip when one of the transmission fault (or faults) for which the intertrip **can** be armed occurs coincident with the intertrip **being** armed for the same fault.
- 11.13.4 **Restoration after trip** - Restoration could be automatic via Delayed Auto Reclose (DAR, operates within minutes) if the circuit fault is transient (e.g. lightning strike), or could be longer if the fault is as a result of damage to the circuit. The impact of circuit damage will vary depending on local network configuration and the nature of the fault. National Grid and the relevant

transmission owners will endeavour to restore connection as soon as reasonably practicable after a trip in accordance with good industry practice and their relevant licence obligations.

- 11.13.5 **Implications of intertrips on different breakers** - The change regarding circuit breakers has principally been introduced to ensure that System to Generator Operational Intertripping Schemes take appropriate account of the range of possible intertripping schemes (this will allow, for instance, for reflection of differences in ownership structures across Scotland, England and Wales, as well as catering for Offshore Transmission in the future).

11.14 Lawfulness of Proposal

- 11.14.1 A number of responses comment on the lawfulness of the Amendment Proposal. These comments are summarised below together with National Grid's initial view on these comments:

- *Human Rights Act – interference with contractual rights*

CAP170, as noted above, does not seek to bring any existing commercial services agreements to a premature end. Any such termination would need to be agreed by the relevant parties.

- *Unlawful discrimination under Directive 2003/54 and National Grid's Transmission Licence*

In terms of determining the application of category 5 intertripping schemes, National Grid is currently consulting on a Methodology and if implemented into the Procurement Guidelines this would provide an approved transparent mechanism to be used in determining the provision of category 5 intertripping schemes. It is proposed that administered prices would be applied consistently with those developed for CAP076.

- *Competition Act – abuse by National Grid of a dominant position*

No evidence is provided in support of the allegations that National Grid is dominant within the meaning of Section 18 of the Competition Act, and taking account of all the circumstances including the countervailing power of other market participants, it is unlikely that National Grid is dominant in any relevant market. Even if it were, there is no evidence of any abuse of any dominance.

- *Due process*

National Grid is following the urgent CUSC process set out in the CUSC and as prescribed by the Authority in its decision on urgency.

ANNEX 1 – PROPOSED LEGAL TEXT TO MODIFY THE CUSC

The proposed legal text to modify the CUSC is detailed below by inserting the coloured, underlined text and deleting the coloured, underlined, struck through text.

<u>“Category 5 Intertripping Scheme”</u>	<u>as defined in the Grid Code:</u>
<u>“Category 5 Agreement to Vary”</u>	<u>as defined in section 4.2A.8.2</u>
<u>“GB SQSS Derogation”</u>	<u>as defined in the Grid Code:</u>
<u>“Derogated Non-Compliant Transmission Boundary”</u>	<u>as defined in the Grid Code:</u>

4.2A SYSTEM TO GENERATOR OPERATIONAL INTERTRIPPING

4.2A.1 Application

The provisions of this Paragraph 4.2A shall apply to **The Company** and a **User** in respect of the provision by that **User** to **The Company** of **System to Generator Operational Intertripping** where details of a **System to Generator Operational Intertripping Scheme** are set out in Appendix F3 of the relevant **Bilateral Agreement**.

4.2A.2 Provision of System to Generator Operational Intertripping

4.2A.2.1 Each **User** hereby agrees, as between **The Company** and that **User**, to:-

- (a) (save where **Force Majeure** applies) make available its **System to Generator Operational Intertripping Scheme** for arming at all times when **Active Power** is being exported to the **GB Transmission System** from the **Connection Site** at which such **System to Generator Operational Intertripping Scheme** is located;
- (b) arm the **System to Generator Operational Intertripping Scheme** in accordance with the terms of the relevant **Bilateral Agreement** when instructed by **The Company** (in accordance with **Grid Code BC 2.8**) by telephone (such instruction to be confirmed by facsimile substantially in the form set out in Schedule 3, Part I to this Section 4);
- (c) (where an instruction from **The Company** has been confirmed by facsimile in accordance with Paragraph 4.2A.2.1(b) above) following the tripping of the User's relevant **Circuit Breaker(s)** upon receipt of a signal from the **System to Generator Operational Intertripping Scheme**:-
 - (i) restrict the export of **Active Power** from the **Connection Site** to the **GB Transmission System** to the level of MW specified in such facsimile confirmation (or such increased

level(s) as **The Company** may subsequently notify pursuant to Paragraph 4.2A.2.2(c)(i)) (“the **Restricted MW Export Level**”); and

- (ii) maintain such restricted export until such time as the **User** is notified by **The Company** in accordance with Paragraph 4.2A.2.2(c)(ii) that the **Restricted MW Export Level** no longer applies, whereupon the **User** shall be permitted to increase the export of **Active Power** from the **Connection Site** above the **Restricted MW Export Level**;
- (d) comply with any special instructions given by **The Company** in the performance of its obligations under Paragraph 4.2A.2.1(c); and
- (e) disarm the **System to Generator Operational Intertripping Scheme** when instructed by **The Company** (in accordance with **Grid Code** BC2.8) by telephone (such instruction to be confirmed by facsimile substantially in the form set out in Schedule 3, Part I to this Section 4).

4.2A.2.2 **The Company** hereby agrees to:-

- (a) notify the **User** as soon as reasonably practicable following **The Company** becoming aware of the requirement for arming of the **System to Generator Operational Intertripping Scheme**;
- (b) (where relevant) take any steps necessary to arm the **System to Generator Operational Intertripping Scheme** in accordance with the terms of the relevant **Bilateral Agreement**;
- (c) following the tripping of the User's relevant **Circuit Breaker(s)** upon receipt of a signal from the **System to Generator Operational Intertripping Scheme**, notify the **User**:-
 - (i) as soon as the **Restricted MW Export Level**, whilst still applying, can be increased; and/or
 - (ii) as soon as the **Restricted MW Export Level** (as may be increased from time to time pursuant to (i) above) no longer applies

each such notification to be in accordance with **Grid Code** BC 2.8 and to be made by telephone (such notification to be confirmed by facsimile substantially in the form set out in Schedule 3, Part II to this Section 4); and

- (d) issue an instruction to disarm, referred to in Paragraph 4.2A.2.1(e), as soon as reasonably practicable following **The Company** becoming aware that the requirement for arming of the **System to Generator Operational Intertripping Scheme** has ceased (and such an instruction shall be deemed to have been issued for the purposes of this

Paragraph 4.2A upon tripping of the User's relevant Circuit Breaker(s) upon receipt of a signal from the **System to Generator Operational Intertripping Scheme**).

4.2A.3 Intertrip Volume

Following the tripping of a User's relevant Circuit Breaker(s) following receipt of a signal from a **System to Generator Operational Intertripping Scheme**, the resulting reduction in **Output** for each tripped **BM Unit** i or (where relevant) any tripped **Generating Unit(s)** comprised in a **BM Unit** shall be determined in accordance with the relevant formula set out in the **ABSVD Methodology Statement**, where such resulting reduction in **Output** is termed SE_{sj} .

4.2A.4 Payments to the User

The Company shall make the following payments to the **User** in respect of **System to Generator Intertripping Schemes**:

(a) a **Capability Payment** shall be paid in respect of each **Category 2 Intertripping Scheme**, and each **Category 4 Intertripping Scheme** and each Category 5 Intertripping Scheme as follows:-

(i) **The Company** shall pay to the **User** an amount ("the **Capability Payment**") in consideration of the installation of the **System to Generator Operational Intertripping Scheme** and the **User's** obligations under Paragraphs 4.2A.2.1(a) and (b), being an amount per month determined by reference to the number of **Settlement Periods** during the month in question (and in respect of which the requirement for **System to Generator Operational Intertripping** is stated in Appendix F3 of the relevant **Bilateral Agreement**) and the payment rate (£/**Settlement Period**) specified in Schedule 4 to this Section 4; and

(ii) for the avoidance of doubt, where a **System to Generator Operational Intertripping Scheme** comprises more than one of both a **Category 2 Intertripping Scheme**, and a Category 4 Intertripping Scheme or a Category 5 Intertripping Scheme, only one **Capability Payment** shall be payable by **The Company** to the **User** in respect thereof;

(b) subject always to Paragraph 4.2A.5, a **Restricted Export Level Payment** shall be paid in respect of each **Category 2 Intertripping Scheme**, each **Category 3 Intertripping Scheme**, and each **Category 4 Intertripping Scheme** and each Category 5 Intertripping Scheme as follows:-

(i) the payment shall only be made where, following the tripping of the User's relevant Circuit Breaker(s) upon receipt of a signal from the **System to Generator**

Operational Intertripping Scheme, restrictions on the export of **Active Power** from the **Connection Site** apply in accordance with the terms of Paragraph 4.2A.2.1(c) above at any time after the period of 24 hours has elapsed following such tripping; and

(ii) in such a case, **The Company** shall pay to the **User** upon request the **Restricted Export Level Payment**, by reference to the period from expiry of such 24 hour period until the time when **The Company** notifies the **User** in accordance with Paragraph 4.2A.2.2(c)(ii) that the **Restricted MW Export Level** no longer applies (“the **Restricted Export Level Period**”); and

(c) subject always to Paragraph 4.2A.5, in respect of each **Category 2 Intertripping Scheme**, and each **Category 4 Intertripping Scheme** and each Category 5 Intertripping Scheme, where the User’s relevant **Circuit Breaker(s)** are tripped upon receipt of a signal from the **System to Generator Operational Intertripping Scheme**, **The Company** shall pay to the **User** an amount (“the **Intertrip Payment**”) being an amount (£/**Intertrip Contracted Unit**/trip) specified in Schedule 4 to this Section 4.

4.2A.5 **Withholding of payments**

The Company shall not be obliged to make any **Restricted Export Level Payment** or **Intertrip Payment** pursuant to Paragraph 4.2A.4 where the tripping of **BM Unit(s)** or (where relevant) **Generating Unit(s)** comprised in a **BM Unit** occurs:-

- (a) during any period where the **System to Generator Operational Intertripping Scheme** is not instructed by **The Company** to be armed in accordance with Paragraphs 4.2A.2.2(a) and 4.2A.2.2(d); and/or
- (b) where the **User** has failed to arm the **System to Generator Operational Intertripping Scheme** in accordance with the terms of Paragraph 4.2A.2.1(b); and/or
- (c) where the **User** has failed to exercise **Good Industry Practice** to restrict the export of **Active Power** from the **Connection Site** to the **Restricted MW Export Level** as required by Paragraph 4.2A.2.1(c) (ignoring any export above **Restricted MW Export Level** where pursuant to an instruction from **The Company** to provide any **Balancing Service(s)**); and/or
- (d) where no signal is received by the User’s relevant **Circuit Breaker(s)** from the **System to Generator Operational Intertripping Scheme**.

4.2A.6 **Revisions to Appendix F3 of the Bilateral Agreement**

Where **The Company** requires **Routine Change(s)** (as defined

below) to be made to Appendix F3 of the **Bilateral Agreement**, then the **User** shall not unreasonably withhold or delay providing to **The Company** written consent to any such **Routine Changes** and hereby authorises **The Company**, following receipt of such written consent, to make amendments on its behalf to Appendix F3 of the **Bilateral Agreement** to reflect such **Routine Change(s)** and undertakes not to withdraw, qualify or revoke such authority or instruction at any time. For the purposes of this Paragraph 4.2A.6, "**Routine Change(s)**" shall mean changes to the nomenclature of transmission circuits associated with a **System to Generator Operational Intertripping Scheme** specified in Appendix F3 of the relevant **Bilateral Agreement** which do not necessitate replacement, renovation, modification, alteration or construction to the **User's Plant or Apparatus**.

4.2A.7 **No payments for Category 1 Intertripping Schemes**

For the avoidance of doubt, no payment shall be made by **The Company** hereunder in respect of a **Category 1 Intertripping Scheme**.

4.2A.8 Implementation

4.2A.8.1 The terms of certain **Bilateral Agreements** between **The Company** and certain **Users** require, or may in the future require, amendment to introduce **Category 5 Intertripping Schemes** into certain **Bilateral Agreements** and/or amend the provisions of such **Category 5 Intertripping Schemes**, specifically those **Bilateral Agreements** relating to **Connection Sites** whereby the use of such **Category 5 Intertripping Scheme** would alleviate thermal overloads, unacceptable voltage conditions or power system instability arising out of an event which results in the interruption of powerflow on a circuit or circuits that form part of a **Derogated Non-Compliant Transmission Boundary**.. This Paragraph 4.2A.8 details the process that will be followed to effect the necessary amendments to such **Bilateral Agreements**.

4.2A.8.2 **The Company** shall be entitled, no later than **5 Business Days** following each of:

- (i) the implementation date of **Amendment Proposal CAP 170**; and/or
- (ii) the date of a **GB SQSS Derogation** issued by the **Authority** in respect of a **Derogated Non-Compliant Transmission Boundary**

to issue to the relevant **User** an agreement to vary the terms of the relevant **Bilateral Agreements** to give effect to **Amendment Proposal CAP 170** and/or the **GB SQSS Derogation** ("**Category 5 Agreement to Vary**").

4.2A.8.3 Where **The Company** issues to the **User** a **Category 5 Agreement to Vary**, the **User** shall either:

- (i) sign and return to **The Company** the **Category 5 Agreement to Vary**, or
- (ii) refer the terms of the **Category 5 Agreement to Vary** to the **Authority** to settle the terms thereof.

in either case no later than the date which is the last to occur of (1) the date **5 Business Days** after receipt by the **User** from **The Company** of the **Category 5 Agreement to Vary**, and (2) the date 10

	<u>Business Days</u> after the applicable date referred to in Paragraph 4.2A.8.2 above.
4.2A.8.4	If the User fails to comply with Paragraph 4.2A.8.3, then The Company shall refer the terms of the Category 5 Agreement to Vary to the Authority to settle the terms thereof.
4.2A.8.5	Upon the Authority settling the terms of the Category 5 Agreement to Vary , The Company shall in accordance with the variations clause of the relevant Bilateral Agreement sign the Category 5 Agreement to Vary on behalf of the User .

SCHEDULE 4

SYSTEM TO GENERATOR OPERATIONAL INTERTRIPPING - PAYMENT RATES

	Category 1	Category 2	Category 3	Category 4	<u>Category 5</u>
Capability Payment (£/Settlement Period)	N/A	£ 1.72	N/A	£ 1.72	<u>£1.72</u>
Intertrip Payment (£/Intertrip Contracted Unit/Trip)	N/A	£ 400,000	N/A	£ 400,000	<u>£ 400,000</u>

All rates in this Schedule 4 are specified at April 2005 base and shall be subject to indexation in accordance with Paragraph 4.5 with effect from 1st April 2006.

ANNEX 2 – AMENDMENT PROPOSAL FORM

CUSC Amendment Proposal Form	CAP170
Title of Amendment Proposal: Category 5 System to Generator Operational Intertripping Scheme	
Description of the Proposed Amendment (<i>mandatory by proposer</i>): CAP076 (System to Generator Intertripping Scheme ⁴) was implemented in 2005 to improve the framework for system to generator intertripping schemes in terms of facilitating clarity of obligations between National Grid and the associated generator with respect to the arming and operation of intertripping schemes, and removing cost volatility associated with previous arrangements. To achieve this CAP076, and corresponding Grid Code amendment A/05, introduced four categories of system to generator operational intertripping schemes. As defined in the Grid Code, these are: Category 1 Intertripping Scheme - A System to Generator Operational Intertripping Scheme arising from a Variation to Connection Design following a request from the relevant User which is consistent with the criteria specified in the Security and Quality of Supply Standard. Category 2 Intertripping Scheme - A System to Generator Operational Intertripping Scheme which is:- (i) required to alleviate an overload on a circuit which connects the Group containing the User's Connection Site to the GB Transmission System; and (ii) installed in accordance with the requirements of the planning criteria of the Security and Quality of Supply Standard in order that measures can be taken to permit maintenance access for each transmission circuit and for such measures to be economically justified, and the operation of which results in a reduction in Active Power on the overloaded circuits which connect the User's Connection Site to the rest of the GB Transmission System which is equal to the reduction in Active Power from the Connection Site (once any system losses or third party system effects are discounted). Category 3 Intertripping Scheme - A System to Generator Operational Intertripping Scheme which, where agreed by NGET and the User, is installed to alleviate an overload on, and as an alternative to, the reinforcement of a third party system, such as the Distribution System of a Public Distribution System Operator. Category 4 Intertripping Scheme - A System to Generator Operational Intertripping Scheme installed to enable the disconnection of the Connection Site from the GB Transmission System in a controlled and efficient manner in order to facilitate the timely restoration of the GB Transmission System. CAP076 did not cover intertrips outside of these categories; all other schemes were envisaged to be covered via bilateral commercial arrangements between National Grid and the generator (going forward these will be referred to as commercial intertrips). This proposal seeks to introduce a new category 5 System to Generator Operational Intertripping Scheme to cover intertrips capable of being armed with respect to a derogated non-compliant transmission boundary, which are not captured by categories 1-4. A	

⁴ http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/amendment_archive/

derogated non-compliant transmission boundary would be defined as a boundary on the transmission system which is subject to an Authority approved derogation to the GB Security and Quality of Supply Standards.

(i) Remuneration for administered intertripping schemes

It is proposed that the category 5 System to Generator Operational Intertripping Scheme will receive remuneration in line with existing arrangements for the Category 2 and Category 4 System to Generator Operational Intertripping Schemes as detailed in the CUSC. These payment terms were proposed by the Working Group during the CAP076 development process, having been considered by the Working Group to be cost-reflective and offer appropriate terms for remuneration. This payment includes:

- An annual Capability Payment for the installation and right to arm the scheme (covering costs such as additional staff training, upkeep of policies and procedures)
- An Intertrip Payment covering costs of wear and tear following a trip
- A Restricted Export Level Payment following tripping should National Grid be unable to restore the Transmission capacity within 24 hours following the trip

(ii) Framework and obligations

The category 5 System to Generator Operational Intertripping Scheme will be administered via generic terms in the CUSC and Grid Code (regarding obligations of schemes and remuneration terms). Site specific technical details, as with categories 1-4, will be included in the relevant F3 appendix of the Bilateral Agreement.

(iii) Application

The category 5 System to Generator Operational Intertripping Scheme would be applied to intertrips capable of being armed with respect to a derogated non-compliant transmission boundary, which are not captured by categories 1-4.

The Amendment Proposal would apply to existing generation which has an intertrip capable of being armed in respect of such a boundary, as well as being capable of being applied as a condition of connection to new connections with respect to such boundaries.

It is envisaged that such schemes will be in place under these arrangements until such time as the nature of the boundary changes (i.e. the derogation is removed).

If a decision to implement this Amendment Proposal is made, such a decision will need to include a direction from the Authority (in line with the variation clause of the relative Bilateral Agreement) to amend existing Bilateral Agreements in line with this Amendment Proposal.

Please note that whilst the proposer believes that this Amendment Proposal better facilitates the applicable CUSC objectives, the proposer is aware that a full review of commercial intertrip arrangements will be necessary should this Amendment Proposal be implemented on an urgent basis, in accordance with CUSC 8.21.1.9.

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

Ofgem wrote to National Grid on the 17th of February 2009⁵ requesting an immediate and urgent review of the commercial and charging arrangements in order to facilitate more effective management of constraint costs.

Constraint costs have increased from £70m in 2007/08 to a forecast £238m in 2008/09 and £262m in 2009/10. As Ofgem highlight in this letter the forecast constraint costs are heavily

5

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=97&refer=Networks/Trans/ElecTransPolicy/tar&sid=e-mail>

influenced by transmission outages as part of the investment programme to increase network capacity. This is particularly true at derogated non-compliant transmission boundaries which require significant periods of extended outage to allow the necessary reinforcement to work towards making the boundaries compliant and the use of intertrips is a necessity rather than an occasional tool in order to maximise flows across the boundary.

One tool available to National Grid, as System Operator, to manage constraints is the use of intertrips. Whilst intertrips are armed pre-fault, the principal cost is incurred post-fault following tripping. Therefore based on the low probability of tripping they should represent a more economic and efficient means for managing constraints than the alternative Bid-Offer action to constrain generation pre-fault. Administering prices for intertrips capable of being armed in respect of derogated non-compliant transmission boundaries would offer a useful means to limit potential costs.

Therefore in light of Ofgem's recent request to review the options for reducing the level of constraint costs, and with particular focus on the suggestion that "NGET could seek to reduce the price of resolving constraint actions by limiting constraint payments and/or by reducing the right for parties to receive payments in certain situations" National Grid is proposing the current amendment to introduce a category 5 System to Generator Operational Intertripping Scheme to cover intertrips capable of being armed with respect to a derogated non-compliant transmission boundary.

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

Changes including, but not limited to:

- CUSC Section 4: Balancing Services, including:
 - 4.2A amended to add additional reference to payment terms for category 5 intertrip
 - Schedule 4 amended to reflect payment rates for category 5

CUSC Section 11: Interpretations and Definitions

- New definition for "Category 5 Intertripping Scheme"

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

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

- Grid Code including but not limited to a new definition for Category 5 Intertripping Scheme, a new definition for Derogated non-compliant Transmission Boundary and amendment to existing definition for System to Generator Operational Intertripping Scheme

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

None

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

Changes to the relevant Bilateral Agreements to amend the appendix F3 for those covered by this amendment. If a decision to implement this Amendment Proposal is made, such a decision will need to include a direction from the Authority (in line with the variation clause of the relative Bilateral Agreement) to amend existing Bilateral Agreements in line with this Amendment Proposal.

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

As proposer of this modification National Grid believes that the introduction of category 5 System to Generator Operational Intertripping Scheme to cover intertrips capable of being armed with respect to a derogated non-compliant transmission boundary 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.

- Facilitating economic and efficient use of all intertrips capable of being armed with respect to derogated non-complaint transmission boundaries
- Clarifying the responsibility and remuneration for intertrips capable of being armed with respect to derogated non-compliant transmission boundaries
- Reducing National Grid and industry exposure to the consequences of the operation of bilaterally negotiated schemes capable of being armed with respect to derogated non-compliant transmission boundaries

(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.

- Ensuring an enhanced level of market certainty with regards to processes, responsibilities and remuneration for intertrips capable of being armed with respect to derogated non-compliant transmission boundaries
- Limiting the potential BSUoS cost for all parties, by limiting the cost of intertrips capable of being armed with respect to derogated non-compliant transmission boundaries

Details of Proposer: Organisation's Name:	National Grid
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:	David Smith National Grid 01926 5534 david.m.smith@uk.ngrid.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	Rob Smith National Grid 01926 654076 robert.smith@uk.ngrid.com
Attachments (Yes/No): If Yes, Title and No. of pages of each Attachment: Yes – indicative drafting of changes to CUSC (as a separate 2 page attachment)	

ANNEX 3 – CAP170 REQUEST FOR URGENCY

Request for Urgency of CAP170

National Grid believes that this Amendment Proposal merits progress via an urgent amendments process, as the nature of the proposal exhibits the following characteristics:

- The proposal is linked to an imminent date related event
- There is a very real likelihood of significant commercial impact upon, NGET, industry parties, or customers if the Amendment Proposal is not treated as urgent

On the 17th of February 2009 Ofgem wrote to National Grid asking us to conduct an urgent review to consider (and if appropriate consult on) whether urgent changes to the existing commercial and charging arrangements for access to the GB transmission system are necessary before the next charging year (starting April 2009). Moreover, as Ofgem indicate in this letter, the rate at which constraint costs are incurred will increase significantly in the next few weeks (when the planned Cheviot outage programme commences). Therefore, this proposal is linked to an imminent date related event.

Furthermore, the amendment seeks to limit the price of intertrips (not classified as System to Generator Operational Intertripping Schemes) at derogated transmission boundaries, and in doing so limit the potential contribution to constraint costs. As all industry parties are charged for the cost of constraints, and this charge is ultimately passed on to consumers, this Amendment Proposal also has the potential to have significant commercial impact on both the industry and consumers.

Therefore, National Grid believes that it is appropriate that the proposal is considered in an expedited manner.

National Grid would propose that the amendment proceeds straight to company consultation under the urgent process based on the following timetable:

- | | |
|---|---------------------------|
| ▪ Amendment Raised and approved as urgent | 27 th February |
| ▪ Launch of Company Consultation | 3 rd March |
| ▪ Close of Company Consultation | 13 th March |
| ▪ Report to industry for comment | 19 th March |
| ▪ Industry comment closes | 21 st March |
| ▪ Panel vote | 25 th March |
| ▪ Report to Authority | 27 th March |

National Grid is aware that this timetable does not allow for Working Group development of the Amendment Proposal (and consequently does not allow for alternatives to be raised); therefore, following implementation of this amendment proposal, in accordance with CUSC section 8.21.1.9, a full review will be necessary.

ANNEX 4 – AUTHORITY DECISION ON URGENCY



Promoting choice and
value to customers

Alison Kay
CUSC Panel Secretary
National Grid
Warwick Technology Park
Gallows Hill
Warwick CV34 6DA

Your Ref:
Direct Dial: 020 7901 7437
Email: mark.feather@ofgem.gov.uk

2 March 2009

Dear Alison,

Request for Urgency in relation to Code Amendment Proposal CAP170: Category 5 System to Generator Operational Intertripping Scheme.

Thank you for your email to Dipen Gadhia, dated 27 February 2009, containing the Panel's recommendation that CAP170 should be treated as an Urgent Amendment Proposal.

Characteristics of Urgent Amendments

Our view is that, in general, urgent amendments are likely to exhibit at least one of the following characteristics:

- There is a very real likelihood of significant commercial impact upon NGET, industry parties, or customers if an Amendment Proposal is not urgent;
- Safety and security of the network is likely to be impacted if a proposed Amendment is not urgent; and
- The proposal is linked to an imminent date related event.

Applying these characteristics to CAP170

CAP 170 was raised by National Grid and would introduce a fifth category of operational intertrip. Intertrips are used by National Grid to manage constraints, and in its view offer a more economic and efficient means for managing constraints than the alternative Bid-Offer action to constrain generation.

From April 2009 and over the forthcoming summer period, there is the potential for National Grid (and ultimately consumers) to incur significant costs associated with the management of constraints on National Grid's transmission system. This modification proposes changing the arrangements by which National Grid manage constraints at derogated, non-compliant transmission system boundaries and has the potential to impact on the level of costs incurred over this period. Given the proximity of the summer constraint period, we consider that this proposal merits urgent status.

Our decision on Urgency

Ofgem therefore agrees with the CUSC Panel and consents to CAP170 being treated as an Urgent Amendment Proposal for the purposes of section 8.21.1.5 of the CUSC.

Urgency Timetable

We appreciate and have taken on board the CUSC Panels views with respect to the timetable. However we consider the amendment needs to be submitted to us under a slightly more constrained timetable to that recommended by the Panel. We therefore direct the following timetable.

Process	Date
Amendment submitted to Company Consultation	03/03/09
Close of Company Consultation	13/03/09
Draft Amendment Report circulated to Industry	18/03/09
Panel undertake Recommendation Vote	23/03/09
Final Amendment Report submitted to the Authority	25/03/09

Ofgem has not, by consenting to the request that CAP170 be treated as an Urgent Amendment Proposal, made any judgement on its merits.

If you have any queries in relation to the issues raised in this letter, please feel free to contact me on the number above.

Yours sincerely



Mark Feather
Director, Industry Codes & Licensing

Signed on behalf of the Authority and authorised for that purpose by the Authority