WORKING GROUP REPORT

CUSC Amendment Proposal CAP071

Development of a Maximum Generation Service

Prepared by the BSSG acting as the CAP071 Working Group for submission to the CUSC Amendments Panel

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II DISTRIBUTION

Name	Organisation
Members	CAP071 Working Group
"	"
Richard Dunn	CUSC Secretary

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1.0 SUMMARY AND RECOMMENDATIONS

1.1 The Balancing Services Standing Group (BSSG), acting as a Working Group in accordance with the Terms of Reference set by the CUSC Amendments Panel, has considered the issues associated with CAP071 – Development of a Maximum Generation Service (MGS).

1.2 In summary, the BSSG:

- **agreed** that CAP071 as proposed would better facilitate the Applicable CUSC Objectives**.**
- further **agreed** that the Working Group Alternate Proposal would better facilitate the Applicable CUSC Objectives as compared with the original Amendment Proposal.

1.3 The BSSG invites the CUSC Panel to:

(i) Note the views of BSSG members in respect of CAP071 as set out in this Report;

(ii) Approve this CAP071 Working Group Report; and

(iii) Approve that CAP071 and the further developed Working Group Amendment Proposal, as identified by the Proposer of CAP071 and adopted by the BSSG as a Working Group Alternative Amendment Proposal, proceed to wider Industry consultation.

2 INTRODUCTION

2.1 In September 2003, National Grid introduced a new balancing service in the form of a Maximum Generation Service (MGS) for the Winter 2003/04. This service is contracted for on a bilateral basis and is provided via an Emergency Instruction as set out in BC2.9 of the Grid Code (GC). It enables National Grid, as the System Operator, to gain access to additional energy over and above the normal operating range of a generating unit at times of system stress.

2.2 At the time of development, Ofgem indicated its preference for a more enduring solution that sought to address the concerns raised as part of the consultation process such as:

- the transparency associated with the procurement and utilisation of the MGS;
- the use of the Applicable Balancing Service Volume Data (ABSVD) process; and
- the need to develop a more enduring solution via the current electricity Industry Codes.

2.3 In response to these concerns, discussion took place at the January meeting of the Balancing Services Standing Group (BSSG – an Industry Standing Group established by the CUSC Panel) as to the best method of securing a more enduring solution. A

Position paper detailing the outcome of this consideration was presented to the February CUSC Panel (Annex 1). Specifically, the BSSG identified a number of key high-level principles to be followed with respect to any potential solution:

- A formal MGS threshold level is required which would be defined on a Balancing Mechanism Unit (BMU) basis;
- A defined data submission route should be established under the GC;
- MGS volumes should be reflective of the technical characteristics of the plant and varied infrequently;
- Transparency of MGS utilised prices and volumes is important and should be published on a BMU basis;
- Provision of MGS should not lead to imbalance exposure;
- A description as to when MGS would be utilised should be included, along with an obligation to secure its use only in emergency conditions; and
- Advance notification of a MGS instruction should be provided where possible.

2.4 The BSSG additionally identified to the CUSC Panel that a number of other Industry documents would probably require consideration in order to reflect an enduring MGS.

2.5 Subsequently, CAP071 (Development of a Maximum Generation Service – Annex 3) was raised by PowerGen and presented to the March CUSC Panel meeting which formally directed the BSSG to act as a Working Group to consider CAP071. Terms of Reference (Annex 2) were agreed by the CUSC Panel and identified the Working Group's responsibilities, scope of work and reporting requirements.

3 PURPOSE AND SCOPE OF WORKING GROUP

3.1 Amendment Proposal CAP071 was submitted to the March CUSC Panel meeting. The Panel determined that a Working Group should consider and assess the Proposal prior to industry consultation, and actioned the BSSG to act as a Working Group for this purpose. The BSSG was issued with Terms of Reference in respect of CAP071 and requested to report back to the May CUSC Panel meeting.

3.2 In accordance with the Terms of Reference, the BSSG has considered whether CAP071 would better facilitate achievement of the Applicable CUSC Objectives for the provision of an enduring MGS. The BSSG also considered whether any further development of the Amendment Proposal might better facilitate the objectives beyond the scope of the original Amendment Proposal.

3.3 This report summarises the findings and recommendations of the BSSG in respect of its consideration of Amendment Proposal CAP071. This report has been prepared in accordance with the terms of the CUSC and an electronic copy of this document can be found on the National Grid website:

www.nationalgridinfo.co.uk/cusc/index.html.

4.0 DISCUSSION OF AMENDMENT PROPOSAL CAP071

4.1 The BSSG held initial discussions at its January meeting on the potential form of an enduring MGS and subsequently reported its findings in a Position paper to the February CUSC Panel (Annex 1).

4.2 Subsequently PowerGen raised CAP071 (Development of a Maximum Generation Service), which sought to improve the efficiency and effectiveness of the current Maximum Generation arrangements by developing the service along the lines contemplated by the BSSG.

4.3 The Amendment Proposal has five specific elements:

- MGS is defined as the additional output offered over and above the normal commercial operating range of a BM Unit as defined by Registered Capacity (RC);
- MGS would continue only as an Emergency Service and be utilised in accordance with the CUSC;
- Reasonable endeavours approach to delivery at a point where the BM Unit is operating at a level equal to MEL;
- In order to avoid the potential for discrimination and manipulation, payment for deliver, where the MEL of a BM Unit was operating at a level equal to its RC, would be guaranteed in full. If a BM Unit was operating at a MEL less than RC, the BM unit would be guaranteed payment for the lower of the volume delivered or X % of RC. X was not defined as part of the Amendment Proposal. Payment for delivery over and above X % would be subject to an appeals mechanism; and
- Full transparency of the service would be available, with publication of prices and volumes on an ex ante and ex post basis.

Development of CAP071 issues

4.4 Over the course of two Standing Group meetings, the BSSG, in its capacity as the CAP071 Working Group, discussed, developed and clarified a number of elements of CAP071. Many of these elements shaped the legal drafting that have been provided for the CUSC as contained within Annex 5. These are now discussed:

Description of the Maximum Generation Service

4.5 The BSSG agreed that the definition of the service proposed as part of CAP071 should be "the additional output over and above a BM Unit's normal commercial operating range". For the purposes of the MGS, this was deemed to be the equivalent of RC, as defined in the Grid Code, which states that:

*"in the case of a **Power Station**, the maximum amount of **Active Power** deliverable by the **Power Station** at the **Grid Entry Point** (or in the case of an **Embedded Power Station** at the User System Entry Point) as declared by the **Generator**, expressed in whole **MW**. The maximum **Active Power** deliverable is the maximum amount deliverable simultaneously by the **Generating Units** ……. less the **MW** consumed by **the Generating Units……**. In producing that **Active Power."***

4.6 It was agreed that to facilitate the reasonable endeavours obligation with respect to service provision, and the uncertainty surrounding actual volumes capable for delivery, the volume contracted would be agreed on a bilateral basis between the User and National Grid. In order to ensure that the volumes associated with the MGS are not used as part of everyday operation, the BSSG also noted that the said volume should only be factored into emergency operational planning procedures.

4.7 As MGS is defined as an emergency action, the BSSG noted that existing BSC Section requirements for credit cover ((K3.4.4) with respect to emergency actions remain unchanged.

Utilisation

4.8 The BSSG **agreed** that a User, as part of the contract negotiation, should declare an indicative availability of MGS to National Grid. This indicative volume should then be re-declared, in accordance with the provisions of the CUSC, should the User become aware of a change in the availability of the service. However, continuous weekly redeclaration of the service was deemed to be impractical, therefore the last submission received would be taken as deemed availability if no resubmission was received.

4.9 Maximum Generation is to be provided on a BMU basis as a result of a reasonable endeavours basis with delivery to be as much as practicably possible. The Service would be instructed via an Emergency Instruction, in accordance with BC2.9 of the GC, with a maximum usage time following instruction of 2 hours. In order to simplify the settlement process, it was agreed that once MGS has been instructed, any re-submission of a MEL associated with the instructed unit, will result in a deemed cease in terms of provision of MGS. Further provision of MGS after this point would then require a new instruction.

4.10 Compliance with the Applicable Balancing Services Volume Data (ABSVD) statement to remove any exposure to imbalance would be compulsory, as detailed in 8.11.

Price Submission

4.11 The BSSG **determined** that prices for MGS would be agreed in £/MWh format on a bilateral basis and detailed in a Commercial Services Agreement. Price changes would be notified no more than once a month and such notification would be provided by 15th

of the preceding month for application from 1st of the following calendar month.

Settlement of MGS

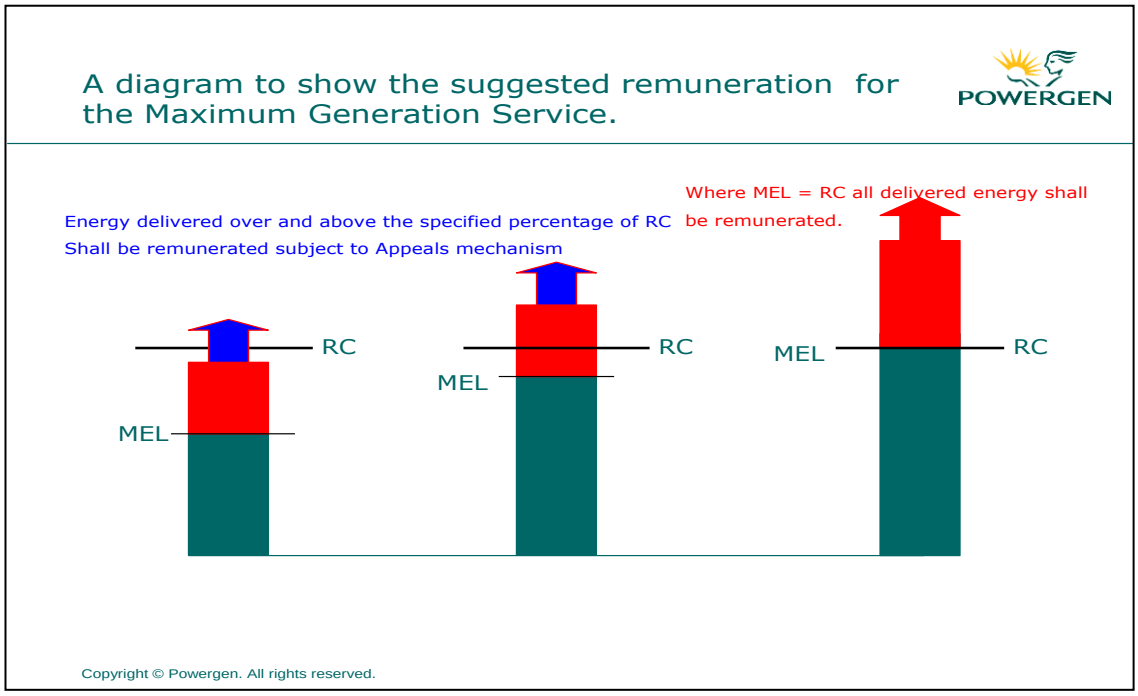
4.12 CAP071 proposes that any payment for MGS, where provision is at a MEL below its normal operating range (RC), should be capped by X% in order to avoid payment being received for volumes which would normally be considered to be within a station's normal commercial operating capability. This mechanism was developed to address concerns on discrimination between commercial mechanisms and the emergency MGS procedures that were put in place for Winter 2003/04.

4.13 The BSSG **determined** that X should equal 3, unless otherwise agreed by the User and National Grid within bilateral arrangements. This decision was based upon an analysis of the average indicative volumes contracted under the current Maximum Generation Service Agreement. The BSSG noted that there are some volumes which are greater than this, reflecting different plant technology types, and hence its decision to allow X to be varied by agreement with NGC.

4.14 Additionally:

- Maximum Generation payment = metered Maximum Generation volume * Energy Payment Fee
- Where the BMU in question is operating at a level where MEL is equal to RC, payment of the entire volume delivered above MEL will be guaranteed.
- Where the BMU in question is operating at a MEL below RC, automatic payment of volume delivered will be capped at 3% of RC as defined in the CUSC, or such other percentage if agreed between NGC and the User.
- Volume delivered over and above 3% of RC will be remunerated subject to an appeals process.

4.15 This is illustrated diagrammatically as follows:



4.16 The payment mechanism would form part of CUSC and hence is included in the legal drafting contained within Annexes 5 and 6.

Appeals Process

4.17 The BSSG **agreed** that for volume delivered over and above 3%, or any otherwise agreed figure, of the RC a dispute must be raised with 10 days of receipt of the "Final Monthly Statement". The User and NGC would have 10 days to resolve the dispute, failing which it would be referred to Ofgem as a Charging Dispute. Following the outcome of the referral to Ofgem, the agreed volume would be settled as part of the next available settlement run. The outcome of a dispute would be published in accordance with the general publication principles associated with the MGS as detailed below.

Information publication and transparency

4.18 The BSSG **agreed** that an appropriate information publication and submission process would be required to support CAP071 to ensure maximum transparency of the prices, volumes and utilisation of the service. It was agreed that once submitted, all details associated with the provision of the MGS would be published.

4.19 In practice, five days following initial contract signature, and thereafter five days following the 15th day of the month prior to utilisation, all prices; RCs; indicative volumes and the value of X (if different to 3%) would be published on a BM Unit

basis. It was envisaged by the BSSG that publication of such data would be on a dedicated page on the National Grid Information Website.

4.20 Where possible, as close to real time, transparency of any instruction to begin the provision of MGS would also be provided. It is envisaged that such a notice would occur on the System Warning Screen of the BMRS and would contain details of the BM Unit instructed, the start and cease times and the indicative volume contracted for that unit. However, the BSSG acknowledged that in times of system stress, this might not always be possible.

4.21 Post event, it is envisaged that details of the BM Unit instructed, the start and cease times plus the applicable price and volume delivered would also be published on the National Grid Information website. This would be provided not later that the 10th Business Day of the month following instruction.

4.22 An example of the information and the format to be published is contained within Annex 8.

Cost impact of CAP071

4.23 Whilst not specifically discussed by the CAP071 Working Group, it is not envisaged that significant IT development costs would be incurred by NGC as a result of the implementation of CAP071. The only anticipated cost would be that of an additional web page on the National Grid Information Website, plus some resource cost to update the site as and when necessary. However, due to the practical timescales for submission and publication agreed by the Working Group, this is expected to be minimal.

5.0 DISCUSSION OF ALTERNATIVE AMENDMENT

5.1 During analysis and consideration of the Amendment Proposal, the Proposer of CAP071 identified an alternative methodology for payment and hence an Alternative Amendment Proposal. The Proposer believed that this would better facilitate achievement of the Applicable CUSC Objectives than the original Amendment Proposal.

5.2 Following discussion, the BSSG concluded that this Alternative would better meet the Applicable CUSC Objectives and the following changes were unanimously adopted in a Working Group Alternative Proposal:

5.2.1. It was noted that in order to facilitate implementation of CAP071, as originally proposed, it would be necessary to re-introduce the GC defined term Registered Capacity (RC) into the CUSC to represent the technical capability of the plant. As CEC is already defined in CUSC, CEC would be utilised purely for payment purposes in order to drive the amount of MGS that is due for payment. The BSSG noted that provided the value attributed to X is

approximately correct, the use of CEC would provide appropriate volumes for payment. Following discussion it was **agreed** that the Working Group Alternative Amendment should be based upon the Connection Entry Capacity (CEC) figure, as this was more consistent with other areas of CUSC.

5.2.2 As a result of concerns expressed about the complexity of the payment formula, an alternative settlement mechanism was identified. Whereas CAP071 differentiated the volume to be paid in accordance with whether the BM Unit in question was operating at a MEL equal to its RC**,** it was **agreed** that payment should always be against the lower of volume delivered or X% of CEC, where X remains equal to 3 (unless otherwise agreed between the User and National Grid) regardless of the position of MEL.

5.3 Consistent with the original Proposal, any volume over and above X% of CEC would be subject to an appeals process.

6.0 ASSESSMENT AGAINST THE APPLICABLE CUSC OBJECTIVES

6.1 CUSC Amendments should better facilitate achievement of the Applicable CUSC Objectives. These are set out in Paragraph 1 of Condition C7F of National Grid's Transmission Licence and are summarised as follows:

(a) the efficient discharge by National Grid of the obligations imposed on it by the Act and the Transmission Licence.

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

6.2 The Proposer of CAP071 believed that by facilitating a Maximum Generation Service the market would receive the appropriate signals in emergency circumstances to provide additional generation on a reasonable endeavours basis. This would facilitate (a) above by gaining access to additional generation for use at times of System stress.

6.3 The Proposer also believed that the provision of a clear framework for a Maximum Generation service should ensure an enhanced level of market certainty with regard to processes, responsibilities and remuneration. Additionally, the Proposal sought to improve transparency by allowing market participants to view published information about the volume of service offered (on a monthly basis) and the capacity, price and utilisation of Maximum Generation post event. The transfer of generic information contained within the current bilateral agreements to an Industry Code would also increase transparency and facilitate (b) above.

6.4 In addition, concerns had been expressed regarding the potential for manipulation and discrimination under the current MGS. In particular, whether the volume provided would be as a result of actions that would not be taken as part of normal commercial operations. The Proposer believed that CAP071 would mitigate the potential for this to arise.

6.5 The BSSG unanimously agreed with the Proposer that CAP071 would better facilitate the Applicable CUSC objectives. Furthermore, the BSSG unanimously agreed that the Working Group Alternate Proposal better facilitated the Applicable CUSC objectives, as compared with the original CAP071. Therefore, the BSSG agreed to adopt the Working Group Alternate Proposal as the Working Group Alternative.

7.0 PROPOSED IMPLEMENTATION AND TIMESCALES

7.1 The BSSG discussed the timescales for implementation of the Amendment Proposal and concluded that this should be prior to Winter 2004/05.

8.0 IMPACT ON INDUSTRY DOCUMENTS

8.1 As part of its discussions, the BSSG identified a number of changes to other industry documents that would be required as a result of the implementation of CAP071. NGC will progress the relevant consultations for other governance areas. The intent will be to align the processes concerned to ensure Ofgem has all relevant documentation for decision simultaneously. These are summarised as follows:

Grid Code

8.2 A number of house keeping changes are required to the GC in order to remove the existing references to the MGS Agreement and replace with references to CUSC, as it is proposed that this would now contain the generic provisions associated with the Service.

8.3 In order to provide some form of warning that a MGS instruction may be imminent, an addition is also proposed to OC7.4.8.5 which details the requirements for the "NGC System Warning – Inadequate System Margin". It is proposed to include a form of notice that MGS may be required during this period.

8.4 These proposals will be submitted to the next Grid Code Review Panel (GCRP) on 20 May 2004 for discussion.

8.5 One member of the BSSG also proposed some additional wording in relation to the hierarchy of actions to be taken in an emergency situation. This proposal will also be submitted for consideration at the next GCRP.

Transmission Licence Special Condition AA4 Statements

8.6 A number of consequential changes are required to the AA4 Statements as a result of CAP071. These are described below.

Procurement Guidelines

8.7 Changes in relation to the Procurement Guidelines would be of a house keeping nature in order to recognise that the generic service provisions would now be contained within CUSC, and that full transparency of the service would be available.

Balancing Principles Statement

8.8 In respect of the Balancing Principles Statement, changes would be made to reflect that the Service could only be provided where a BM Unit had been instructed to or was generating at MEL. This requirement was previously contained within the MGS Agreement. In addition, changes to the wording would also reflect that where possible, the System Operator would provide information close to real time as to the instructions given.

8.9 Additional changes were also provided by one member of the BSSG. These changes seek to align the BPS to the proposed changes to the GC as to the hierarchy of actions in an emergency situation. NGC will consider this issue further to discussion at the GCRP.

Balancing Services Adjustment Data (BSAD)

8.10 The BSSG agreed that all costs and volumes associated with the provision of MGS should be treated as energy balancing services in respect of BSAD and hence feed into the calculation of imbalance prices as per the current mechanism.

Applicable Balancing Services Volume Data

8.11 It is proposed that changes are effected to the Applicable Balancing Services Volume Data methodology (ABSVD). At present, the methodology reflects that participation is voluntary. As a result of CAP071, it is envisaged that compliance with ABSVD will become mandatory. In addition, as a result of the changes to the payment calculation, changes will also be effected to the algebra within the methodology to reflect that the volume removed is the lower of the volume delivered or X% (3% or as otherwise agreed).

BETTA Impact

8.12 CAP071 is an England and Wales CUSC Amendment that is being progressed against the applicable England and Wales Objectives. However, clearly at some point CAP071 would be consulted on as to whether it would be appropriate to implement on a GB basis, under BETTA. Whilst the BSSG has not explicitly considered CAP071 in the context of BETTA, no significant issues are foreseen.

Maximum Generation Service Agreement

8.13 As a result of the inclusion of provisions for MGS in the CUSC, a new MGS Agreement will require implementation. An example of the proposed Agreement is illustrated and attached in Annex 4.

9.0 LEGAL DRAFTING

9.1 The legal drafting to support the original Amendment Proposal and the Alternative Amendment Proposal are contained within Annexes 5 & 6.

9.2 CAP071 new definitions are detailed in Annex 7. It should be noted that a new definition will not be required for "Operational Day" should CAP047 be implemented. Similarly, a new definition of "Registered Capacity" will not be required if the Alternative Amendment Proposal is implemented.

9.3 This Working Report will be presented to the CUSC Panel meeting on 21 May 2004.

ANNEX 1: BSSG Position Paper on Development of Maximum Generation Service

The BSSG (Balancing Services Standing Group) has been considering the development of the Maximum Generation Service (MGS). The initial options considered for MGS development were either as an **Emergency Service** or a **Commercial Service.** Additionally the BSSG considered whether the service should be provided for in the CUSC (with associated contractual arrangements) or via the BSC (and despatched via acceptances within the Balancing Mechanism).

It was agreed by the BSSG that:

- Enduring implementation of MGS would require changes to a number of industry documents;
- MGS would be used only in emergency conditions as an emergency service;
- There would need to be a clear understanding of how and when MGS would be used;
- Appropriate transparency would need to be established within any development of MGS; and
- Further work would be required once a proposal (or suite of proposals) comes forward.

The BSSG presented the CUSC panel with a position paper in January, presenting the views of the BSSG and remaining issues to be considered ahead of a final position paper from the BSSG.

This paper presented the BSSG's final report on how MGS could be developed and the possible consequential changes to the industry codes that would need to be made.

The general view of the BSSG was that the most appropriate way forward would be to enhance the arrangements for MGS that were implemented in advance of Winter 2003/04 to facilitate the principles outlined above.

It is the view of the BSSG that this paper discharges the action placed on it at the November CUSC Panel to develop proposals for MGS.

Key Principles agreed by BSSG for Maximum Generation Service

The following high level principles were agreed by the BSSG for any future MGS:

1. Formal Maximum Generation level, such that any generation above this level would be considered as Maximum Generation volume. This level would be a defined term eg Maximum Generation MEL (MG MEL). It was agreed that any MG MEL term would need to be:
   - defined on a BMU basis;
   - communicated to NGC through a defined data submission process in the Grid Code;
   - reflective of the technical characteristics of the plant;
   - a value that would vary infrequently; and

- published to the market on a BMU basis

Consideration was also given as to whether MEL could be used as MG MEL given that it is a Grid Code technical parameter and should reflect the actual characteristics of the plant.

2. Transparency of Maximum Generation prices and Maximum Generation utilisation volumes.

3. Removal from exposure to imbalance for Maximum Generation volumes.
   Due to the nature of the Maximum Generation volume and way in which it is predominately delivered (by switching out feed heaters, oil over burn etc.), it is considered as a non-firm volume.

4. Description of when MGS would be used by National Grid with an obligation on NGC to only use MGS during Emergency Circumstances.

5. An undertaking on NGC that where possible an advance notification of when an MGS instruction may be imminent would be given.

Possible changes required for development of MGS

The Code and documents within which the key principles may need to be addressed are discussed below.

Grid Code:
Based on the above key principles it was agreed by the BSSG that changes would be needed to the Grid Code in order to address submission of MG MEL type value (key principle 1).

Necessary changes could be made to the Grid Code to allow for availability and MG MEL submissions to be managed through Grid Code data submissions.

The appropriateness of with which data MG MEL submissions would sit within the Grid Code may depend to a certain extent on the variability of MG MEL and would be an area of further development within any Grid Code modification.

As indicated above, it may be appropriate for MEL to be used as the MG MEL level.

Further areas for change that are not explicitly listed in the key principles, may include how the service is despatched in accordance with the Grid Code so that it is consistent with any developments of the service. Changes may also be required to cover the scope for who would provide MGS

Grid Code/AA4 Licence Documents:

Changes that need to be made to the Grid Code and AA4 Licence Documents (Procurement

Guidelines and Balancing Principles Statement) to fulfil key principles 4 and 5 would consist of:

- a robust and clear description of when the service would be used including interactions with:
    - BM bids and offers
    - Demand control measures
    - System warning messages

- a clear service definition in order to remove any ambiguity regarding what would be classified as MGS.

Further AA4 Licence Document changes:

Licence document changes may also be required in order to fulfil principles 2 and 3. The extent of changes would depend on where provisions for pricing and settlement arrangements of the service are made (BSC, CUSC and/or Ancillary Services Contract). Changes may include:

- an undertaking in the Procurement Guidelines to publish ex ante Maximum Generation prices.

- changes required (including removal) to ABSVD provisions for MGS dependent on pricing and settlement arrangements

BSC, CUSC and/or Ancillary Service Contract:

Although not explicitly mentioned within the key principles, it was acknowledged by the BSSG that general provisions for payment and settlement of MGS would need to be covered as well as any notification processes required for the service.

The general view of the BSSG was that the CUSC was the appropriate vehicle, although it was acknowledged that the same outcome could probably be effected via the BSC.

<u>CUSC and/or Ancillary Service Agreement:</u>

There would also be potential for changes to the CUSC (Section 4) in order to cover the provisions for MGS, including:

- contract principles for any MG MEL type value; MGS prices and any notification processes;
- reference to the BPS and Grid Code requirements for use of the service in emergency conditions; and
- any other remaining generic contract issues.

Any further BMU specific data would need to be contained within an Ancillary Service Agreement (ASA). Alternatively, the detail within the CUSC regarding MGS, could to

varying degrees could be contained within the ASA.

It was agreed by the BSSG that it would be desirable to put as much 'common' information in the CUSC as possible, leaving the minimum amount in a bilateral contract.

Any CUSC and/or ASA solution would require minimal systems and process changes, as the electronic despatch, settlement and removal from imbalance processes are already established and in place. The predominant changes would potentially be to the CUSC. This would allow for expedient implementation of MGS developments ahead of Winter 2004/05.

BSC:

Changes to the BSC would need to provide for despatch, pricing and settlement of Maximum Generation within the Balancing Mechanism. It would also require necessary changes to ensure any Maximum Generation volume is removed from exposure to imbalance (key principle 5).
The above changes to the BSC could be seen as having a number of impacts:

- a dilution of the BM, which is primarily a firm market;
- control systems changes (of varying complexity depending on how robust a BM solution is proposed eg electronic despatch to enable rapid despatch of considerable volumes of plant in emergency situations, also introduction of specific MG offers and prices, and potential submission of MG MEL as a dynamic parameter)
- possible changes to Elexon settlement systems to allow for removal from imbalance of MG volumes and settlement of the service
- potential overhead for providers in terms of data re-entry, to allow for MG offer readjustment in conjunction with PN movements within the BM
- introduction of transparency equivalent to other actions in the BM.

Areas for further discussion within Modification Working Groups

1. What category of market participant can provide the service – all or a subset?

2. Definition of MG MEL and interactions with MEL.
    - Frequency of variation of MG MEL
    - Issues surrounding MEL and MG MEL discrepancies
    - Use of Emergency Instructions to bridge MEL to MG MEL gaps
    - Use of MEL to be the MG MEL value

3. Variability of prices.
    - Appropriateness to vary prices for a Maximum Generation Emergency service.
    - Frequency of variation of prices
    - Agreement of price variations
    - Interactions with settlement of MGS

4. Cost and complexity of implementation of any solution, in terms of system change and despatch and settlement process.

Way Forward

This paper highlights possible Code and document amendments necessary in order to develop MGS based on the key principles agreed by the BSSG.

The implementation of a developed MGS would span a number of different Codes and governance areas and a holistic approach will need to be taken in preparing any modifications.

Whilst reviewing MGS the BSSG has developed a good understanding of the issues associated with MGS and is well placed to act as a Working Group to consider the specific details of any Maximum Generation modification.

Recommendation

The CUSC Panel is invited to:

(i) NOTE the work done by BSSG on MGS;
(ii) NOTE the issues raised in this paper.

ANNEX 2 – CAP071 Working Group Terms of Reference

RESPONSIBILITIES

1. The Working Group is responsible for assisting the CUSC Amendments Panel in the evaluation of CUSC Amendment Proposal CAP071 (Development of a Maximum Generation Service) tabled by PowerGen at the Amendments Panel meeting on 26 March 2004.

2. The proposal must be evaluated to consider whether it better facilitates achievement of the applicable CUSC objectives. These can be summarised as follows:

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

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

SCOPE OF WORK

3. The Working Group must consider the issues raised by the Amendment Proposal and consider if the proposal identified better facilitates achievement of the Applicable CUSC Objectives.

4. In addition to the overriding requirement of paragraph 3, the Working Group shall consider and report on the following specific issues:

   - The identification of an appropriate parameter to provide an upper limit for normal generation;
   - Consideration to the value of 'x', where 'x' is the percentage of a generator's capacity that is guaranteed remuneration for the provision of maximum generation;
   - Consideration of whether 'x' is generic across all providers, or variable by technology type;
   - Transparency associated with procurement and use of the service (ex-post and ex-ante);
   - Consideration of the impact of CAP071 on Transmission Network Use of System Charges;
   - The specific legal drafting changes required to the CUSC;
   - Arrangements that will need to be covered in a bilateral contract between the service provider and National Grid; and
   - Consider and highlight any consequential changes to other industry codes (e.g. the Grid Code) as a result of CAP071.

5. The Working Group is responsible for the formulation and evaluation of any Alternative Amendments arising from Group discussions which would, as compared

with the Amendment Proposal, better facilitate achieving the applicable CUSC objectives in relation to the issue or defect identified. The Working Group shall have due regard to Core Industry Documents and other industry documents in the evaluation of the Amendment Proposal and any Alternative Amendment.

6. The Working Group is to submit their final report to the CUSC Panel Secretary on 13 May 2004 for circulation to Panel Members. The conclusions will be presented to the CUSC Panel meeting on 21 May 2004.

MEMBERSHIP

7. It is recommended that the Balancing Services Standing Group (BSSG) acts as a Working Group for CAP071, and therefore the membership of the Working Group will be the same as the membership of the BSSG.

8. The membership can be amended from time to time by the CUSC Amendments Panel.

RELATIONSHIP WITH AMENDMENTS PANEL

9. The Working Group shall seek the views of the Amendments Panel before taking on any significant amount of work. In this event the Working Group Chairman should contact the CUSC Panel Secretary.

10. Where the Working Group requires instruction, clarification or guidance from the Amendments Panel, particularly in relation to their Scope of Work, the Working Group Chairman should contact the CUSC Panel Secretary.

MEETINGS

11. The Working Group shall, unless determined otherwise by the Amendments Panel, develop and adopt its own internal working procedures and provide a copy to the Panel Secretary for each of its Amendment Proposals.

12. The Working Group is scheduled to meet on:

- 30 March 2004,
- 21 April 2004, and
- 5 May 2004.

whether further meetings are required and schedule them accordingly the Working Group will consider**.**

ANNEX 3 – CAP071 Amendment Proposal Form

CUSC Amendment Proposal Form	CAP071

Title of Amendment Proposal:

Development of a Maximum Generation Service

Description of the Proposed Amendment

This proposal seeks to improve the efficiency and effectiveness of the current Maximum Generation arrangements by developing the service along the lines contemplated by the BSSG.

i) Greater Clarity of Process

* Clear guidelines as to how and when the service may be called (to be included in the Grid Code and AA4 Documentation). This should cover the interaction with BM Bids and Offers, System Warnings and Demand Control.
* Maximum Generation Service to be called via an Emergency Instruction (as described in BC2.9)
* Notification to warn of imminent instruction (where possible).

ii) Technical Parameters

* All Generation above MEL to be treated as Maximum Generation.
* An appropriate technical parameter should be adopted to provide an upper limit for normal generation (perhaps Registered Capacity (RC) as this can be altered within year). This can then be used in conjunction with MEL to calculate the volume of energy to be considered for remuneration (See iii). ***For the purpose of clarity, the technical parameter shall be referred to as [RC] for the remainder of the document, but shall be interchangeable with an alternative suitable technical parameter should such a change be considered appropriate.***

iii) Remuneration

* Where MEL is equal to [RC], remuneration shall be guaranteed for 100% of the energy provided under a Maximum Generation instruction.
* Where MEL is below [RC], Maximum Generation shall be guaranteed remuneration for the first [x]% of [RC] over MEL. 'X' shall be a standard percentage for all providers and should be listed within the CUSC. 'X' may vary according to technology type.
* If more than [x]% of [RC] can be produced in a circumstance where MEL is below [RC] then the additional energy will be remunerated subject to an appeals mechanism.
* Costs should feed in to imbalance prices as this will help provide the correct market signal.
* Prices within contract with [y] days notice period to vary. This would be similar to the current arrangements (where y is set to 5 to allow for notification and adjustment of the Ancillary Services settlement systems).

iv) Improved Transparency

* The transfer of generic information currently contained within bilateral contracts in to the

CUSC.
* Published figures showing the volume and prices of maximum generation offered (Monthly basis in arrears).
* Published figures showing the capacity, price and utilisation of the Maximum Generation Service post event.
* The ability to vary the notice period of [y] days shall be specified within the CUSC.

Description of Issue or Defect that Proposed Amendment seeks to Address

NGC recently implemented a Maximum Generation service for winter 2003/04. This decision was based on the rationale that this Emergency Service could facilitate additional security of supply by accessing generator output, which would otherwise be unavailable prior to Demand Control. Unfortunately due to the limited time available to implement the new Emergency Service prior to Winter 2003/04 it was not possible to address some important governance issues which in the longer term would be able to ensure greater levels of transparency and utilisation of the Service. National Grid identified this issue….

"In the longer term a more developed service could be considered. This is likely to involve substantial changes to the BSC and/or CUSC (for example to allow for non-firm BM offers) and is therefore not considered feasible for this winter".

(Grid Code Consultation Document 22nd September 2003)

This amendment seeks to enhance the arrangements for last winter and thereby better achieve the applicable CUSC objectives. The aim and scope of this amendment proposal are in line with the recent considerations of the BSSG.

Impact on the CUSC:

Changes will be required to Section 4.
Additional Section 4.2.4 describing the Maximum Generation contractual arrangements.

Impact on Core Industry Documentation:

AA4 Documentation:

- ABSVD (review of current provisions)
- Changes required to PGs

Additions to the Grid Code including;

- Consequential changes to BC2.9 to reflect the contractual arrangements in the CUSC.
- OC7.4.8 NGC System Warnings

Impact on Computer Systems and Processes used by CUSC Parties

-

Details of any Related Modifications to Other Industry Codes

Justification for Proposed Amendment with Reference to Applicable CUSC Objectives**

As Proposer of this modification we believe that the facilitation of a Maximum Generation Service through the CUSC would better achieve the applicable CUSC objectives.

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

By facilitating a Maximum Generation Service the market will receive the appropriate signals to provide additional generation on a reasonable endeavours basis. This should serve to increase the security of supply in an efficient manner.

(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 a clear framework for a Maximum Generation Service should ensure an enhanced level of market certainty with regard to processes, responsibilities and remuneration.

Additionally, this amendment seeks to improve transparency by allowing market participants to see published information about the volume of service offered (on a monthly basis) and the capacity, price and utilisation of Maximum Generation post event. Transferring the generic information contained within the current bilateral agreements in to an industry document will also increase transparency and therefore facilitate effective competition.

Details of Proposer: Organisation's Name:	Powergen UK plc

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:**	 Neil Smith Powergen UK plc 02476 424369 neil.c.smith@pgen.com
Details of Representative's Alternate: Name: Organisation: Telephone Number: Email Address:	 Claire Maxim Powergen UK plc 02476 425378 Claire.maxim@pgen.com
Attachments): NO **If Yes, Title and No. of pages of each Attachment: N/A**	

ANNEX 8 – Proposed Format of Information to be Published on the National Grid Information Website

Note: Illustrative data only.

Pre-event

BM UNIT	Maxgen Volume Offered	X equal to	CEC/RC	Price
'A'	15 MW	Default	500	£100/MWh
'B'	10 MW	6%	450	£100/MWh
'C'	22 MW	8%	400	£100/MWh

Post-event

Duration
Start:
Close:

BM Unit	Maximum Generation Volume Delivered	X equal to	Price per £/MWh	Duration/h	Payment £
'A'	12 MW	Default	100	2	2400
'B'	10 MW	6%	100	2	2000
'C'	44 MW	8%	100	1	4400