



National Grid

A REPORT TO THE AUTHORITY

**Pursuant to Paragraph 7(d) of Condition 14 of the
Transmission Licence.**

TRANSITIONAL CONSULTATION

Grid Code – BETTA Go-Live cut-over requirements

**The purpose of this document is to assist the Authority in its
decision of whether to implement the proposed
Grid Code Modification**

Consultation Paper Ref	T02/04
Issue	1.0
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Prepared by	National Grid

DISTRIBUTION

Name	Organisation
Authority	Ofgem
Grid Code Review Panel Members	Various
National Grid Industry Information Website	

Introduction

1. Consultation T02/04 was concerned with real time cut-over requirements. NGC have identified the requirement to activate certain provisions in the Grid Code, principally Balancing Code 1 and 2, in advance of BETTA Go-Live. Appendix A contains the proposed revisions to the current Grid Code General Conditions (all additional text). This includes changes made as a result of comments in response to the consultation.
2. Condition C14 and C19 of the transmission license allows the Authority to direct changes to the Grid Code under certain circumstances. During transition these circumstances include matters covered in the General Conditions of the Grid Code GC.A1.11. The transitional provisions in the Grid Code provide for NGC to consult in accordance with the instructions of the Authority on matters needed to manage implementation of BETTA in the period up to Go-Live, (the Transition Period).
3. The matters covered in GC.A1.11 include 'cut-over' arrangements to be put in place for the final transition to BETTA. NGC are currently anticipating Go-Live to be 00:00 hrs 1 April 2005.
4. NGC informed the Authority of its intention to consult on the issues identified in consultation T02/04 and was instructed by the Authority on 24 December 2004 to do so.
5. National Grid, in accordance with the Authority instruction, consulted those authorised electricity operators listed in Appendix C by circulating to them Consultation Paper T02/04, which was dated 24 December 2004 and which contained the proposed amendments to the Grid Code. In addition, the Consultation paper was circulated to Scottish parties via the Secretary of the Scottish GCRP. These parties are also included in the list in Appendix C. National Grid also placed a copy of the Consultation Paper on its website to ensure its wide availability. The consultation paper T02/04 is attached to this Report as Appendix D.
6. Comments were invited from all interested parties by 31st January 2005. This period was two weeks longer than normal Grid Code consultations to take account of the holiday period. National Grid has received responses from 3 authorised electricity operators. The responses are discussed more fully in the main body of this report. The responses and National Grid's replies are attached in Appendix B to this report

Background

7. The transitional requirements in the Grid Code can be broadly split into three main areas: Energy Balancing (frequency control), Transmission Despatch (switching) and market reporting. NGC have looked at the cut-over process for each of these areas and it is our view that, in terms of the Grid Code, only Energy Balancing requires explicit provision in the transitional section of the Grid Code.
8. Market reporting prior to Go-Live is to be carried out exclusively by Elexon via the Elexon website. The exact details of this reporting are being covered in the Elexon transitional consultations. For this reasons the activation of Balancing Code 1 prior to Go-Live, as proposed in this report, excludes BC1.5.1, BC1.5.2 and BC1.5.3.
9. The high level approach for Transmission Despatch is that Scottish Users should continue to liaise with the respective Scottish system operator under the Scottish

Grid Code up to Go-Live. After Go-Live Users should liaise with NGC as required under the GB Grid Code (except as specifically provided for in the GB Grid Code e.g. OC8). For a period before Go-Live we expect that transmission licensees will be exchanging information on transmission despatch that may have an effect on or after Go-Live. Therefore National Grid believes there are no specific transitional requirements required for Transmission Despatch to facilitate cut-over.

10. For Energy Balancing, as with Transmission Despatch, the process will be for Users to liaise with the existing system operator up to Go-Live and NGC after Go-Live. Although, in order to maintain system security immediately after Go-Live and for NGC to forecast for the following day, it will be necessary for NGC to be provided with the data submitted under BC1 in the normal timescales i.e. initially at 1100 hrs the day before Go-Live and updated until Gate Closure.
11. In order to facilitate a smooth change over, NGC will also require the facility, under BC2, to issue instructions from 2300hrs (1 hour before Go-Live) in relation to the period after Go-Live only. NGC will not issue despatch instructions to Scottish Users covering the period before Go-Live. The wider obligations in BC2 will also need to become active from 2300 hrs, to cover the period after Go-Live, in respect of the data previously submitted under BC1. Again, as with Transmission Despatch, the Scottish system operators will be liaising with NGC on the conditions on the Scottish system prior to Go-Live.

The cut-over process

12. In preparation for Go-Live, and in accordance with the normal arrangements in BC1, it is proposed that Scottish Generators inform NGC (through the submission of physical notifications) of the electrical output they expect their units to deliver from Go-Live. It is envisaged that through the Scottish Grid Code Scheduling and Despatch arrangements these will correspond to the despatch instructions they receive from the Scottish Grid Control centres. To assist with a smooth transition, the Scottish system operators will also liaise with NGC directly in respect of despatch decisions in the final hours of operation under the Scottish arrangements.
13. From 2300hrs on the day before Go-Live NGC would also be able to issue BOAs applicable from Go-Live. If issued, Users would be expected to begin to deliver these from Go-Live. At Go-Live, the enduring GB arrangement will take effect, with Scottish generating stations following their Physical Notifications as submitted under BC1.
14. It is feasible that between the first GB Gate Closure (2300hrs) and Go-Live (midnight), Scottish Generators may be issued with instructions from the Scottish Grid Control Centres which result in them being unable to meet the Go-Live PN position they have advised to NGC. In this event they should follow the Scottish despatch instruction until Go-Live and immediately post Go-Live take controlled actions to return to their PN in accordance with their declared (to NGC) ramp rates. If NGC requires an alternative course of action it will issue BOAs accordingly.
15. If a Scottish Generator is unable to meet its Physical Notification at Go-Live, and is unable to resubmit it to NGC because Gate Closure has passed, they should re-declare their Maximum Export/Import parameters in accordance with BC2.
16. Up to Go-Live, NGC may issue BOAs to the Scottish Interconnector BMUs against the physical notification and Bid Offer data provided by them under BC1. In the final two settlement periods prior to Go-Live, NGC will liaise with the Scottish system operators to understand the implications, if any, on the new GB

BMU(s) at the point of Go-Live before the issue of any BOA to the existing Scottish Interconnector BMUs. Where National Grid can issue a BOAs to an Interconnected Users, it can also discuss the impacts with the affected system operators and possibly the interconnector Users.

Enabling BC1

17. In order to achieve secure and economic energy balance, NGC will begin its in depth analysis of the energy position on the GB Transmission System at the day ahead stage following receipt of the BC1 submissions at 1100hrs. In order to carry out this analysis for the first day of BETTA Go-Live, information is required on Scottish Generating Units by this point. The analysis is repeated continually up to real time and activating the relevant sections of BC1 at 1100hrs would ensure all BM participants (including Cascade Hydro Schemes and Embedded Exemptable Large Power Stations) provide NGC with accurate data for its analysis.
18. It is proposed that this should be achieved by activating those sections of BC1 under which BM Participants submit data pertaining to the operation of their BMUs at 1100hrs on the day before Go-Live.
19. Although it is proposed that the obligations under BC1 be formally switched on at 1100hrs on the day prior to BETTA Go-Live, NGC will be enabling submissions from Scottish BM Participants prior to this as set out in the legal drafting. Under normal arrangements participants can submit BC1 data up to 5 days prior to the operational day. For the BETTA Go-Live date of 1st April, this would permit first submissions to be made on Sunday 27th March (Easter Day).
20. Experience with enabling submissions from new E&W participants indicates that despite qualification testing, IT issues are often encountered when the first 'live' submission is made. To minimise the risk of these interrupting normal operations on Easter Day, it is proposed to limit advance submissions from Scottish Users for the operational day of BETTA Go-Live to 3 days for new participants only. Thus for these participants, NGC's systems would accept submissions from 1100hrs on 29th March 2005.
21. Activation of the relevant sections of BC1 at 1100hrs on the day prior to BETTA Go-Live provides for participants to submit data relevant for the periods from the start of the following operational day. The Grid Code defines the operational day as starting at 0500hrs. In order cover the period from Go-Live up to 0500hrs NGC propose that this be amended for Scottish Users which would allow for submission of data from Go-Live to 0500hrs. Consequently, submissions made by Scottish Users by 1100hrs on 31st March 2005 should cover the period 0000hrs 1st April 2005 to 0500hrs 2nd April 2005.
22. Activation of the relevant sections of BC1 and the additional provision covering from Go-Live up to 0500hrs as described in the previous paragraph allows for participants to submit data for operational periods from BETTA Go-Live. However, to ensure a smooth transition from the existing through to the enduring GB arrangements, NGC is actively encouraging participants to submit accurate data for new Scottish BMUs for periods in advance of BETTA Go-Live. For new or existing participants with BMUs that become active at BETTA Go-Live, submissions will be accepted from 1100hrs on 29th March 2005 for any periods beyond 1200 on 29th March 2005. Any data submitted for such BMUs for periods in advance of BETTA Go-Live will not be released to the BMRA in either raw or aggregated form, nor used to set any imbalance prices until BETTA Go-Live.
23. In addition, the Scottish system operators will be liaising directly with NGC for several hours prior to Go-Live. This will include the Scottish system operators

making NGC aware of actions within the Scottish market that will or may have an impact on cut over. Through the transition provisions proposed in this report NGC will be allowed to exchange information sent under the GB Grid Code with the Scottish system operator to facilitate cut over.

24. Gate Closure for the first period of system operation under BETTA occurs at 2300hrs of the previous day. As explained previously, beyond this point, BM Participants are unable to issue further updates to physical notifications or Bid Offer Data. To enable participants to provide revisions to BM Unit data post Gate Closure, it is proposed to activate BC2 as detailed below.

Enabling BC2

25. As described above, the Grid Code permits NGC to issue BOAs to a BMU at any time after Gate Closure. To ensure that Scottish BMUs are not discriminated against immediately post BETTA Go-Live, NGC requires the ability to issue BOAs to Scottish BMUs from the first Gate Closure. It is therefore proposed that BC2 be activated from 2300 hrs 31st March 2005 to allow this. For the avoidance of doubt, any such BOA issued would not require the commencement of any energy delivery or consumption (including ramping up or down) from a Generator before Go-Live.
26. In addition to issuing BOAs from Gate Closure, the GB Grid Code permits NGC to issue ancillary service instructions and emergency instructions. To avoid discrimination and ensure NGC can operate the GB Transmission System in accordance with its licence obligations, the ability to issue such instructions from the first BETTA Gate Closure for delivery post BETTA Go-Live is required.

OC7 - System Warnings

27. To ensure Scottish Users receive the system warnings applicable for the periods after Go-Live NGC also propose to switch on from 1100 hrs 31st March 2005 the relevant section in OC7. These are referred to in both BC1 and BC2.

IT System Outages

28. To effect the transition to BETTA, NGC envisage the need for 2 IT system outages. Formal confirmation of the dates, times and expected duration for these will be provided to market participants in the normal way (via the System Warnings and Other Messages screen on the BMRS). However, it is envisaged that the first outage will be during early March and the second outage during the afternoon of 31st March 2005.

Proposed changes to the Grid Code

29. Based on the assumption that BETTA Go-Live date will be 00:00 hrs 1 April 2005, it is proposed to insert additional requirements in the transition section of the General Conditions:

BC 1: proposed activation time: 11:00 hrs 31st March 2005 (excluding BC1.5.1, BC1.5.2 and BC1.5.3)

30. BC1 generally provides for the submission of data for operation of the Balancing Mechanism. It contains a description of the data items that should be submitted and their associated submission timescales. It also provides for the submission of data at the day ahead by Network Operators. Information is provided regarding constraints and embedded generation restrictions that NGC may need to take into account in the operation of the Transmission Network. In addition, it provides for NGC to identify and agree with Users, usually at the day ahead stage, special actions that the User may be required to undertake either pre or post fault.

31. In addition a transitional provision to cover data for the period from Go-Live to 0500hrs. This effectively extends the submission for the following operation day by 5 hours i.e. 29hrs from Go-Live to 0500hrs on Go-Live +1day.

32. Users have also been made aware that although the data defaulting mechanism described earlier will be used, the obligation in BC1.4.3, '**BM Participants** should use reasonable endeavours to ensure that the data held by **NGC** in relation to its **BM Units** is accurate at all times', covers all the data held by NGC, including that for the period from 00:00hrs to 0500hrs from Go-Live.

BC 2 proposed activation time: 23:00 hrs 31st March 2005

33. BC2 describes how NGC shall use the information supplied by BM participants under BC1 once the Gate Closure has passed and how participants should operate their BMUs. It also provides for the revision of certain BMU data after Gate Closure. BC2 also covers the process for NGC in issuing of BOAs and various other operational instructions.

OC7.4.8 proposed activation time: 11:00 hrs 31st March 2005

34. This will ensure Scottish Users will receive the appropriate system warnings, if any were to be issued prior to Go-Live.

Proposed legal drafting

35. The proposed text that supports the above changes is provide in Appendix 1 to this report. We have also incorporated two changes over that proposed in the consultation following comments by respondents to the consultation as discussed below. These additional changes provide clarification on the provisions of Ancillary Services immediately following Go-Live and that the proposed text should be under GC.A3 and not GC.A2.

Consultation Responses

36. National Grid received responses from 3 Authorised Electricity Operators. Each response along with National Grid's reply is included as Appendix B.

37. All three respondents were generally supportive of the proposed Grid Code changes. However two respondents both pointed out drafting issues. One of these respondents added a number of further comments and proposals. Each of

these is discussed below. More detail is also provided in the individual responses / replies contained in Appendix B.

38. Two respondents fully supported the proposals. One of these was concerned with the possible impact on their particular operation in Scotland, although they accepted the need to comply, they were interested in the practical implications. NGC will be discussing the exact requirement with individual Users prior to go-live.
39. The other respondent, again support the proposals, but suggested the text as drafted should be under GCA3 not GCA2. National Grid agrees with this respondent and the proposed changes in Appendix A of this report includes this suggestion. This change does not materially affect what any User would be required to do.
40. The third respondent replied after the consultation had closed, but National Grid accepted the response and incorporated it in to this report. This respondent commented that 'In general the proposed arrangements are pragmatic in the approach for notification to the GBSO and we support many of the points in the consultation, but there are a few areas which we feel discriminate against the Scottish supply and Generation participants compared to their counterparts in E&W'.
41. National Grid's full reply to this respondent has been attached to this report along with the original response. In summary, this respondent was concerned with the following areas:
 - (i) The requirement for Users to return to PN immediately following go-live where they had been despatched away from their expect position by the Scottish system operator pre go-live.
 - (ii) The impact on Scottish Users and Suppliers, as well as generators.
 - (iii) The impact of IT systems outages and the lead time for sending data.
 - (iv) The impact on Ancillary Services.
42. In order to address the first two of issues this respondent proposed that the same arrangements that existed for the cut-over from the POOL to NETA should be adopted. This would involve National Grid providing Bid Offers Acceptances that carried on Scottish system operator actions taken before Go-Live. National Grid do not believe this is appropriate for the following reasons:
 - a) At the start of NETA the 'Gate' was up to 4 hours in advance of real time. Since NETA, through BSC modification P12, the 'Gate' has been reduced to 1 hour ahead of real time. This dramatically reduces any perceived risk and increases the ability for a participant to manage its imbalance.
 - b) NETA transition was the transition from a centrally despatched market to self despatch. This is not the case with the transition to BETTA. We understand that the generation businesses in Scotland act with a certain level of autonomy within the Scottish market and through the Scheduling and Despatch codes nominate outputs. Similar to NETA, the Scottish System operator then moves a generator away from those nominated levels. Therefore Scottish Generators have far greater control over their position than generators did under the POOL.

- c) The three major participants within the Scottish market with flexible plant that could be affected in the manner suggest by the respondent are familiar with the NETA arrangements and participate in the NETA market through the interconnector and as England and Wales participants.
- d) National Grid does not have the ability to manage actions taken in the Scottish Market pre go-live, where as under NETA transition NGC took account of the post go-live implications of pre go-live decisions. The actions being taken in the Scottish market before Go-Live do not take account of the impact on the GB market.
43. If NGC were to be required to issue Bid-Offer Acceptances (BOAs) to all Scottish participants there would be a risk that a BOA at £99999 (+/-) could be accepted. The consequences of this would be to provide a windfall gain to a single, or number of, generation parties at the expense of all other Users, including Scottish Suppliers and Consumers. In the transition from the POOL to NETA NGC would not have issued pre Go-Live instructions that would have had such an impact. In the period prior to Go-Live for BETTA National Grid has no equivalent control over the actions of the Scottish system operators.
44. For the reasons given above we have not adopted the proposal that National Grid should issue BOAs for Scottish system operator actions as a recommendation in this report.
45. On the issue of IT system outages, we note that the placement of these is a balance between a number of issues that affect our ability to manage the system efficiently and minimise the impact of external risks. The ability for Users to send data in advance of go-live is linked, in part, to the timing of these outages.
46. NGC believe that Easter Sunday, when demand is at its lowest for possibly 6 months, would be an inappropriate time to carry out an IT outage. Minimum demand has a significant impact in system operation, particularly in exporting areas such a the North of England and Scotland. We have also taken in to account that clock change occurs on this day. Clock change on its own has a significant IT impact on the electricity industry.
47. In terms of the last planned outage prior to Go-Live, this substantially changes some of the basic functionality of our main IT systems. Again, we have to balance the impact of this change on our management of the England and Wales system against inserting the new Scottish BMUs into our real time despatch Systems. We have previously discussed this type of issue with the respondent during our interface meetings and received no negative feedback..
48. A change that allowed Users to submit data in advance of 5 days ahead, the current limit in England and Wales, would be a much more fundamental change to the IT systems and is not linked to the timing of IT outages.
49. Given our need to balance various issues above and that late timing of this request we are not practically able to make such a change at this late stage. We do not believe continuing with the proposed outage plan will have a significant affect on Users, indeed, maintaining the stability in arrangements is likely to have a positive affect for most User.
50. This respondent highlighted that provision of ancillary services could also cause Users to deviate from PN. In England and Wales National Grid dispatches Ancillary Services on a economic basis which takes account of the prices offered for the service and other system operation cost, such as the costs to position a Generating Unit to deliver a service.

51. Where the service being provided pre go-live is a fast response type service we would expect this to be provided by flexible plant. A Generator would be able to manage that plants output and return to PN very shortly after go-live and therefore minimise any exposure itself. Where the service has been provided for general dynamic stability of the frequency, the level of despatch would be significantly small that the volume of imbalance will be very minor. Where the service is being used to provide for a significant system disturbance, not necessarily limited to Scotland, the imbalance price is likely to be reflective. If the prices such parties offer in the BETTA market are overall economic NGC would seek to continue such service.
52. Where the service is less dynamic in nature, namely the provision of reactive power, although this does not affect the imbalance position it does have an affect on the security of the system.
53. Noting that respondents comments and having further reviewed the drafting we propose to clarify that for all services other than reactive power, unless specifically instructed otherwise by NGC (i.e. NGC have logged an instruction under BC2 for the service be maintained), Users should cease to provide the Ancillary Services from go-live and return to PN. In the case of reactive power, Users should continue to provide the service as requested by the Scottish system operator until instructed otherwise by NGC.
54. As indicated above, having regard to the outcome of the review described in this Report, National Grid proposes the revisions to the Grid Code set out in Appendix A, which revisions we reasonably think fit for the achievement of the objectives referred to in GC.A1.11 of the Grid Code.
55. I would be grateful if you would contact me prior to issuing any letter specifying an effective date, in order to seek to ensure that the date is consistent with any other Code changes which may then be approved or be close to being approved. NGC will notify AEO's of the implementation date once the Authority has directed the modification.

SIGNED BY

25 February 2005

APPENDIX A

Proposed Grid Code changes

Additional text for GC.A3

GC.A3.2

- (a) The provisions of **BC1** (excluding BC1.5.1, BC1.5.2 and BC1.5.3) shall apply to and be complied with by **Scottish Users** and by **NGC** in respect of such **Scottish Users** with effect from 11:00 hours on the day prior to **Go-Live**
- (b) Notwithstanding (a) above, **Scottish Users** may submit data for **Go-Live** 3 days in advance of **Go-Live** on the basis set out in the **Data Validation, Consistency and Defaulting Rules** which shall apply to **Scottish Users** and **NGC** in respect of such **Scottish Users** on that basis and for such purpose.
- (c) The **Operational Day** for the purposes of any submissions by **Scottish Users** prior to **Go-Live** under a) and b) above for the day of **Go-Live** shall be 00:00 hours on **Go Live** to 05:00 hours on the following day.
- (c) The provisions of **BC2** shall apply to and be complied with by **Scottish Users** and by **NGC** in respect of such **Scottish Users** with effect from 23:00 hours on the day prior to **Go-Live**.
- (e) The provisions of **OC7.4.8** shall apply to and be complied with by **Scottish Users** and by **NGC** in respect of such **Scottish Users** with effect from 11:00 hours on the day prior to **Go-Live**.
- (f) In order to facilitate cut over, **Scottish Users** acknowledge and agree that **NGC** will exchange data submitted by such **Scottish Users** under **BC1** prior to **Go-Live** with the Scottish system operators to the extent necessary to enable the cut-over.
- (g) Except in the case of **Reactive Power**, **Scottish Users** should only provide **Ancillary Services** from **Go-Live** where they have been instructed to do so by **NGC**. In the case of **Reactive Power**, at **Go-Live** a **Scottish Users** Mvar output will be deemed to be the level instructed by **NGC** under **BC2**, following this **Scottish Users** should operate in accordance with **BC2** on the basis that Mvar output will be allowed to vary with system conditions.

APPENDIX B

Responses

Mr David Payne
The National Grid Company plc
National Grid House
Kirby Corner Rd
Coventry
CV4 8JY

Your ref

Our Ref

DACN

Date

31st January 2005

Contact / Extension

**David Nicol /
01698 413504**

Dear David

Grid Code Consultation T/02

I would confirm that SP Transmisson broadly support the proposals in the Grid Code Consultation T/02. However we would make the following detailed comments.

- In general the proposals are reflective of the requirements to meet operation of both systems up to and through 'cut-over'. There will remain the need for close co-operation and communication between the three transmission licensees prior to the point of cut-over to minimise any unforeseen matters arising particularly in relation to both MW and MVA_r dispatch.
- We believe that it would be more logical for the proposed changes for GC A2 to sit within GC A3, as A2 relates to transition and A3 cut-over. Section A3 already exists.

Yours sincerely

David Nicol

Hynes, Patrick

From: david.m.ward@magnox.co.uk
Sent: 11 January 2005 12:16
To: Payne, David - NGT House
Cc: nigel.burrows@magnox.co.uk
Subject: Consultation Document T02/04

To:

David Payne
Industry Codes, Commercial Frameworks
National Grid Company plc
National Grid Transco House
Warwick Technology Park
Gallows Hill
Warwick CV34 6DA

(By Email)

David

Grid Code Transitional Consultation Document T02/04 ?Grid Code - BETTA Go-Live cut over requirements?

Thank you for sending me this consultation document. This email is the formal response of Magnox Electric plc to this Consultation Paper. (Magnox Electric plc is a part of British Nuclear Group, which itself is currently part of BNFL). This response is not confidential.

The proposed cut-over requirements on the day before BETTA starts all seem sensible to us. They may be relevant to us to the extent that they may apply to our Chapelcross power station in Scotland. This power station is closed, but remains as a directly connected demand site with a normal demand at the moment of 3-3.5MW, although on a few occasions it has peaked to 8MW. As a consequence, under GB Grid Code BC1.4.2(a) (ii) we may need to submit PNs for Chapelcross if it is to be treated as a single BM unit. We would like to avoid such submissions if that can be arranged, but in the event that we cannot avoid them, to start submissions from 11:00am on 31 March does not present undue difficulties.

Regards**David Ward**

Magnox Electric plc
Berkeley Centre
Berkeley
Gloucestershire, GL13 9PB
United Kingdom

Phone: +44 (0)1453 813631
Fax: +44 (0)1453 812845
Mobile: +44 (0)789 906 4052
Email: david.m.ward@magnox.co.uk

Magnox Electric plc is a part of British Nuclear Group

----- End of message

Hynes, Patrick

From: Ian.McGrath@scottish-southern.co.uk
Sent: 02 February 2005 17:49
To: Payne, David - NGT House
Subject: Grid Code - BETTA Go Live Cut over requirements Consultation Response to T02/04

Dear David,

Grid Code - BETTA Go Live Cut over requirements

Please find below the response from SSE Generation Ltd and SSE Supply Ltd towards the GB Grid Code Consultation T02/04. We welcome the invitation to respond on such an important subject of Transmission Despatch and Energy Balancing.

Response:

In general the proposed arrangements are pragmatic in the approach for notification to the GBSO and we support many of the points in the consultation, but there are a few areas which we feel discriminate against the Scottish supply and Generation participants compared to their counterparts in E&W. We feel the transitional procedures for Scottish Users should be simple, effective and with minimal risk to all participants. We would like to propose changes to the transitional arrangement proposals to remedy this and allow all participants to start BETTA on a level playing field with the other participants throughout GB.

At the initiation of the NETA arrangements, generators migrated to the 00:00 initiation of the new market arrangements by offering in their physical notifications 4 hours ahead of the start time. Any generators which were requested to move by the current system operator, from their intended PN at 0000 were automatically given bid-offer instructions based on the plant dynamics to allow these generators to return to their planned positions. No generator was left in a position which was different from their planned PN if they had been instructed to a different position by the system operator before NETA go-live.

In Scotland depending on any incidents, the stations could be instructed by the Scottish System operators to be 600-800MW away from their intended PNs and being subject to potentially high market exposure (system buy and sell prices). The proposals do not discuss or address these commercial issues.

Description of the proposed amendments and their effects

We welcome the approach for Scottish system operators to liaise with NGC directly in despatch decisions in the final hours of operations under the Scottish arrangements. This will ensure incidents are discussed and plans are developed to restore the system status quo expeditiously. It will also mean that Scottish System operators who instruct Scottish Generators away from their intended running and initial PN position from 1200 will be known to the GB system Operator (GBSO).

The proposal in point 29 discusses the potential for Scottish Generators to be in a different position from their intended PN due to a third party instruction, in this case the Scottish System Operators. NGT suggests that Scottish Generators should restore their plant to their PN as soon as they can at Go-Live after such an instruction. This however means that the Scottish Generator(s) (and potentially a supply business purchasing their output) would be out of balance from their intended PN and subject to cash out pricing (system buy / sell prices) due to a System operator instruction outwith their control. It also means that the system from 00:00 will be long or short requiring the GBSO to request balancing mechanisms action from the other plant in GB creating an increase in commercial risk for those affected Parties - due to cash out prices reflecting the prices of the bid/offer acceptances.

Our proposal for point 29

Our view is that prior to Go Live any Scottish System Operator instruction to move Generators from their intended running is a deemed balancing mechanism instruction (and contract) to balance the Scottish System.

In the transitional arrangements we have the NETA arrangements (with system balancing managed by NGT) and the Scottish Arrangements, where the Scottish System operator instruct generators to different intended positions dependant on system events. If an event happened on the network, other generators will be asked to provide higher or lower output to balance the system. In Scotland, these instructions would be managed by the Scottish System operators. These instructions are the equivalent of the balancing mechanism instructions managed by the GB system and could be deemed to be so.

As NGC will be taking over all the responsibilities of the Scottish System Operators at Go-Live, they are effectively taking over the ongoing obligations from the Scottish system operator from Go-Live. If a system instruction is sent to a Scottish Generator or large demand customer which is still active at 24:00, NGC should be obliged to continue with this instruction until the system is restored to its "normal state". A Balancing mechanism instruction should be sent by NGT to the Generator or demand customer of appropriate, sufficient magnitude and duration to restore the generator/ customer back to its intended position (or longer if the system requires a longer period of despatch and the plant offers the best commercial solution).

This is no less than what would be expected from any service company taking over the enduring obligations of another company providing these services.

Point 30. This point only considers the operational issues involved with a Scottish Generator being unable to meet its physical notification at Go-Live. There are three reasons for the Generator being at a different position from its intended running at Go-Live:

1. Ancillary services (due to Scottish System Operator requesting services)
2. Scottish System Operator instruction to increase / reduce load
3. Plant difficulties.

Both 1 and 2 above are outwith the Generators control. Point 3 is at the Generators' own risk. For this point, only, the GBSO should not have any obligations to provide Balancing mechanism instructions to the affected Generator (s)

However the the GBSO should have ongoing obligations to fulfill the Scottish system operator instructions and subsequently provide appropriate Balancing Mechanism instructions (post Go-Live) to the affected Generator (s) to return the Generator to its submitted physical notification.

Point 31. This point confirms that system balancing instructions by NGC or the Scottish system operator to Parties can have an impact to the Scottish Generators and supply businesses ability to deliver their physical notification from Go-Live.

It does show that NGC are thinking along the similar line to our new proposal above and are suggesting new bid-offer acceptances should be given to the generators (or supply companies) affected by system instructions to the interconnector BMU. This point substantiates the earlier arguments that ongoing instructions from System operators prior to BETTA GO-Live should become part of the ongoing obligations for the GBSO post Go-Live to give Generators a mechanism to return to their submitted PNs post Go-live.

Under an interconnector BOA, the E&W system operator does not know which combination of Generation / supply is providing the variation from the PN prior to Go-Live. Under this scenario, Scottish System Operators and the E&W system operator should be having a dialogue with the different Generators / Suppliers who are providing this service and agree the magnitude of active

power movement attributable from individual generators to provide the instructed BOA movement from the combined interconnector physical notification. Individual BOAs can then be instructed to these generators for implementation at Go-Live reflecting their percentage contribution to the instructed BOA of the interconnector PN.

e.g. a 100MW Bid reduction to deviate from the PN on the interconnector flowing south could be due to three generators reducing 50/30/20MW. Three BOAs would be sent by NGC to these generators to start at Go Live to continue with their pre-GoLive profile, or the BOA can be profiled to allow the stations to ramp back to their Go-Live submitted PN post Go-Live.

We welcome the suggestions that a GB based BOA would remedy individual generators or suppliers contribution to a bid-offer instruction on the interconnector to ensure they are exempt from cash-out pricing for providing the service pre-Go_live assuming their output is not restored to their physical notification at Go-Live.

Point 34

We are concerned with the restriction of three days, rather than five days, being proposed for new participants only, before the 1st April for submitting BC1 data.

As NGC themselves state in their proposal:

“..... experience of enabling submissions from E&W participants indicates that despite qualification testing, IS issues are often encountered when the first “live” submission is made”

By proposing the three days NGC are nearly halving the available time left to Scottish Participants who need to have time for submitting “live data” and addressing any issues from the NGC systems or elsewhere. They have more activities to complete in this transitional time than “normal operations” and yet NGC are proposing this reduction in time to

“ minimise the risk of interrupting normal operations on Easter Sunday”

NGC’s reasons to cut-short a participant’s right to a minimum 5 days for entering data is puzzling. It appears NGC consider the Easter Sunday “normal operations “ as being more important than the successful implementation of Go-Live for BETTA.

It could probably be considered that Easter Sunday is an ideal day for system switch-over due to the lower forecast demands and lower system activity on that day.

An alternative would be to increase the duration of the allowable participants in Scotland to give market participants a 7-14 days window ahead of Go-Live, if NGC are concerned about staff resourcing on the Easter weekend, but new Scottish participants should not be disadvantaged by any unwillingness by NGC to work on Easter Sunday.

There are a substantial amount of new BMUs being introduced in Scotland due to the BETTA arrangements, which need to have populated data for Go-Live, and tested . Scottish participants who have no experience of the NETA arrangements need to have the time to identify / modify and rectify their systems (or NGC systems) if faults develop. We would strongly suggest that Scottish market participants are allowed more than 5 days to submit BC1 data due. At a minimum, a 5 day window should allow Parties to submit and test the large volume of BMUs which will need “live submissions” into the NGC systems.

Point 35 pragmatic , no comments

Point 36 pragmatic concept but would refer back to earlier comments on the 5 days

Point 37 pragmatic, no comments

Scottish Hydro-Electric, Southern Electric, SWALEC and S+S are trading names of the Scottish and Southern Energy Group.

From: Hynes, Patrick
Sent: 08 February 2005 09:10
To: 'david.m.ward@magnox.co.uk'; Payne, David - NGT House
Cc: nigel.burrows@magnox.co.uk
Subject: RE: Consultation Document T02/04

David, thank you for your response.

I note your support. I have forwarded your comments on to Operations and Trading about submission of PNs. They will investigate the need for you to send PNs. The submission of PNs can of course be defaulted, where the demand is constant this may be the best approach.

Patrick Hynes
Senior Commercial Analyst
Phone 01926 656319 / Mobile 07899 063593
E- mail patrick.hynes@ngtuk.com

From: Hynes, Patrick
Sent: 31 January 2005 15:59
To: 'David Nicol'
Cc: Payne, David - NGT House
Subject: RE: Consultation T02/04

David, thanks you for your response.

In terms of your detailed comments we agree with both.

In the report to the Authority I will recommend, as suggested in a response, that the text be in placed in GC A3.

Many thanks.

Patrick Hynes
Senior Commercial Analyst
Phone 01926 656319 / Mobile 07899 063593
E- mail patrick.hynes@ngtuk.com

Date: 10 February 2005

Ian McGrath
SSE Generation Ltd / SSE Supply
Ltd

By email to: Ian.McGrath@scottish-southern.co.uk

Commercial Frameworks
Industry Codes

National Grid Company plc
NGT House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

Tel No: 01926 656319

Dear Ian

**Re:- SSE Generation Ltd and SSE Supply Ltd response to Grid Code
Consultation Paper T02/04**

Thank you very much for your response to the above consultation. I note that you have not requested your response be kept confidential and therefore, along with this reply, it will be appended to the report that NGC sends to the Authority and places on our industry web site.

We note your general support for the approach adopted in the consultation. I also note you have some concerns that the proposals discriminate against Scottish supply and generation participants. In this letter I seek to further explain the rationale for the approach NGC have proposed, and why we believe this results in less risk for all parties involved and any 'affected' party can either manage its perceived exposure or would receive appropriate compensation.

In summary, we believe that your proposed suggestions would result in an increased risk to supply businesses. We also believe that the imbalance compensation mechanisms within the BSC should mitigate the risk for generation if the circumstances you describe were to occur.

National Grid does not believe that the transition from the Pool to NETA is a suitable model for transition from NETA to BETTA. The main reasons for this are:

- At the start of NETA the 'Gate' was up to 4 hours in advance of real time. Since NETA, through BSC modification P12, the 'Gate' has been reduced to 1 hour ahead of real time and this dramatically reduces any perceived risk.
- NETA transition was the transition from a centrally despatched market to self despatch. This is not the case with the transition to BETTA. We understand that the generation businesses in Scotland act with a certain level of autonomy within the Scottish market and through the Scheduling and despatch codes nominate



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outputs. Similar to NETA, the Scottish System operator then moves a generator away from those nominated levels. Therefore Scottish Generators have far greater control over their position than E+W generators did under the POOL.

- The major participants within the Scottish market with flexible plant that could be affected in the manner you suggest are familiar with the NETA arrangements and participate in the NETA market through the interconnector and as England and Wales Users.
- National Grid does not have the ability to manage actions taken in the Scottish Market pre go-live, where as under NETA transition NGC took account of the post go-live impacts on prices in pre go-live decisions.

On the last point, we note that if NGC were to be required to issue 'deemed Bid-Offer Acceptances (BOAs)' to all Scottish participants there would be a risk that a BOA at £99999 (+/-) could be accepted. The consequences of this would be to provide a windfall gain to a single, or number of, generation parties at the expense of all other Users, including Scottish Suppliers and Consumers.

The largest loss on the Scottish system is 1200 MW. In the event 1200MW is lost this will, in theory, need to be replaced. In the very short term this is provided from Shared Operating Reserve, of which approximately 90 percent is supplied from England and Wales through the BGSA. Therefore the volume of exposure for Scottish plant would be very much reduced. Where any party was out of balance at go-live, for the benefit of the system, it would most likely receive adequate compensation because the market as a whole would be out of balance due to the generation loss.

This later point about the SBP and the SSP post go-live reflecting where plant has been lost pre go-live will obviously extend up to the gate closure period. After this the User who has lost plant could trade out of such a position or / and manage its operational position through adjusting PN submissions. This stability clearly further reduces the risk following go-live to any negative exposure.

As noted earlier, the gate closure has been reduced to 1 hour, taking account of the Shared Operating Reserve above, this leaves approximately an hour where actions could be taken in the Scottish Market that may lead to a generator being away from their notified PN. Beyond this period a Generator could re-declare their PN. Based on our understanding, 1 hour is quite short timescales to synchronise plant, other than hydro. In any case, one would expect that only synchronised plant or fast acting plant could react in such timescales.

Where fast acting plant, such as hydro or OCGT, is being used the generator can clearly manage its position post go-live in a number of ways. Firstly, the generator can reduce its output as suggested by NGC, the ramp rate being consistent with the Grid Code, this allows the Generators to significantly reduce the volume which it would be paid at system sell price. The generator may chose to accept the system, sell price. As noted above, if the loss was so significant that it results in a significant volume being provided by an individual generator, one would expect the System Sell Price to be adequate compensation. A Generator may also to choose to submit

economic bid / offer data into the GB market. In this latter case NGC would most likely accept the BOA on normal economic grounds.

In your response to paragraph 29, you suggest a supply business would be out of balance as a result of a generator being away from its PN under BETTA, this is not actually the case. Firstly, a PN may not always directly relate to a contractual position, and secondly, the supplier imbalance is completely independent of its contractual counterparty once a trade has been notified, but is governed by its allocated metered volume through the SVA process. I would not expect a supplier purchasing electricity from a generator who has been despatched by the Scottish System operator to be exposed in any such way. Any actions that NGC takes in England and Wales post go-live will be at the prevailing BOA price, were the Scottish parties to be the most economic choice naturally they would be selected – there would be no question of discrimination.

I think your last point, sums up our position very well– *‘It also means that the system from 00:00 will be long or short requiring the GBSO to request balancing mechanisms action from the other plant in GB creating an increase in commercial risk for those affected Parties - due to cash out prices reflecting the prices of the bid/offer acceptances.’* – clearly, Users can not be exposed to Bid / Offer acceptances that are unlimited at go-live. Where the system was length had been driven by an event in Scotland the generation would be receiving ‘positive’ payment for providing corrective action.

As mentioned earlier if the loss in Scotland is a significant one would expect the imbalance prices to be ‘positive’. Were NGC to issue deemed BOAs, all parties could be exposed to extreme prices through BSUoS and imbalance payments. Therefore we do not support your proposed deemed BOA option. We consider that NGCs proposal would provide suitable compensation through imbalance for significant variances, where as SSEs proposal would put all parties, other than the generator concerned, at risk to extreme payments. For minor variances the exposure should be very limited and the generator can respond quickly to manage this.

In terms of System Operator action that would cause a generator to reduce output, this would mainly be in response to a fault on the system or a demand estimation error. Clearly, where a local fault occurred NGC would have little choice but to continue the action taken by the Scottish System Operator , and the generator would receive the appropriate compensation. A planned outage causing a constraint is also likely to be dealt with in a similar manner. Demand estimation, although not exact, will be fairly well known an hour or so before real time and therefore we would not expect this to be a significant factor.

On the provision of Ancillary services, the GB arrangements will start from go-live, so any payment will be made under the BETTA arrangements. Where the terms are economic NGC would require the Generator to provide these from go-live. In reviewing the text we believe that it could benefit from some clarification. Payment for reactive provision is on delivery, and clearly one would not expect the system requirement for reactive power, that has a significant local element, to change over go-live. Therefore we propose that all generators should continue to provide the reactive service unless instructed by NGC otherwise. This will be clarified in the text to the Authority. Provision for frequency response is slightly different, although there is a locational element, it is in response to the system frequency as can be considered GB wide. In order to reduce any exposure to Generators, we will amend the text to clarify that at go-live, unless indicated otherwise by NGC, a Generator

should revert to Limited Frequency Sensitive Mode operation from go-live. In the event that NGC requires frequency response from a particular generator from go-live, it will issue a frequency instruction to the generator prior to go-live, to become effective at Go Live. The generator will receive compensation in the normal manner from go-live until the instruction is cancelled by NGC.

Clearly, NGC is not taking over the same service that has been provided to the Scottish System Operator and therefore NGC cannot be expected to take on any implied obligations. NGC's primary obligations in this respect are to operate the GB system as a whole, in a safe, secure and economic manner. The decisions taken by the Scottish System Operator under the Scottish arrangements would have been under completely different market arrangements, with different conditions, prices and obligation to those applicable under BETTA arrangements.

Our point under paragraph 31 was not intended to imply that NGC is thinking along the same lines. In producing the consultation NGC considered it right to highlight the possible consequences and these are discussed in 31. Clearly, if Scottish generators put in interconnector prices that are economic in the hour up to go live NGC would be obliged to use these should they be required. NGC would be purchasing these on the basis of the interconnector BMU price pre go-live, were this price to be carried over into the BETTA market one would expect NGC to buy the equivalent plant at the same cost under BETTA. The Generator has full control over the pre and post go-live bidding strategy and plant availability for such services and therefore can control such a situation. Again we fail to see the impact on supply businesses who's contracts would have been met under BETTA, and therefore would be at greater risk if exposed to windfall gains by a generator through the Balancing Mechanism.

The example quoted fails to recognise that the prevailing offer price could be at £-99999 and the dynamics may cause the volume to be significant. In such circumstances the generator is the only 'winner', all other parties, including suppliers, would be exposed to significant costs. Under your example, where the post go-live dynamics and cost result in the most economic BOA clearly NGC would, subject to the other factors that a System Operator needs to take in to account, purchase such a BOA.

On the issue of 3 versus 5 days, or possibly 7-14 days, in relation to the submission of data prior to go-live. I have asked our IS providers to reconsider. Unfortunately, they are fully committed to achieving the current plan and such a change at this late stage cannot be accommodated. The 3 day window has been communicated with Scottish users (including SSE) in our regular project teams liaison meetings since the middle of 2004 and our approach has not changed.

For a number of factors Easter Sunday is not the perfect day for a switchover. As you are no doubt aware, in exporting areas a lower demand puts significant stress on a network, and as you correctly point out, Easter is an extremely low demand time. Also a switchover, or submission of data from Easter would require staff from not only NGC but nearly all other participants to be available, although I can assure you that our key implementation staff are expecting to be working throughout this weekend to achieve a successful go-live. There is also the added complication this year that clock change is that weekend, and I am sure you are aware of the

resources that are committed across the industry to ensure the clock change process runs smoothly.

On point 38, as discussed earlier, NGC do not believe it is in the best interests of the industry in general for NGC to be accepting deemed BOAs. We note, that where the prices offered by such Scottish Generators under BETTA immediately post go-live were economic NGC would, subject as above, purchase these. In the event the BOAs were not economic, clearly other users should not be exposed to such prices and a Generator would receive imbalance compensation and be able to move to PNs at go-live to reduce any perceived exposure. The likely volume out of balance will be proportional to any event, and thus one would expect the imbalance price to reflect this. In submitting information to the pre go live market, Scottish Generators should recognise that this needs to be managed with their post go-live position under BETTA.

I appreciate your point on the IT system outages. As mentioned above, we are working hard to achieve a successful go live and unfortunately moving the outage to the night before would involve key project staff having to work continuously from 30th through to the 1st. Therefore we are not able to accommodate this request, although I assure you that we will be doing our utmost to reduce the outage time and hence the impact on participants.

Once again thank you for your comments. I hope this reply has been useful in explaining why NGC believe the that our proposed way forward, where Generators managing their position by returning to PNs at midnight, is less of a risk to all participants than NGC accepting deemed BOAs.

If you have any further queries on cutover please do not hesitate to contact myself or David Coan at Wokingham.

Yours Sincerely

Patrick Hynes

APPENDIX C
Distribution List

Distribution List for Consultation Paper T02/04

Paper and/or electronic copies of the Consultation paper sent

ABB Equity Development Co Ltd
Accord Energy
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Notification of Consultation paper on the Industry Information website.

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APPENDIX D

Consultation Paper T02/04



National Grid

GRID CODE TRANSITIONAL CONSULTATION DOCUMENT

‘Grid Code - BETTA Go-Live cut over requirements’

The purpose of this document is to consult on the above Grid Code Modification Proposal with authorised electricity operators liable to be materially affected by the proposed changes

Consultation Ref	T02/04
Issue	1.0
Date of Issue	24 December 2004
Responses required by	31 January 2005
Prepared by	National Grid

DOCUMENT LOCATION

National Grid website:

http://www.nationalgridinfo.co.uk/grid_code/mn_consultation_papers.html

DISTRIBUTION

Name	Organisation
AEO's	Various
GCRP Members/Alternates	Various
Interested Parties	Various
National Grid Industry Information Website	

Introduction

1. The transitional provisions in the NGC's Transmission Licence and the Grid Code provide for NGC to consult on GB activation of specific obligations needed to manage implementation of BETTA in the Transition Period.
2. Condition C19 of the Transmission Licence requires NGC to use all reasonable endeavours to identify any matters which are not addressed in the transition provisions of, amongst other things, the Grid Code, but which should in NGC's opinion be so addressed and to submit details of such matters to the Authority.
3. The General Conditions of the Grid Code contain transitional provisions including those for the Grid Code 'cut-over' arrangements to be put in place for the final transition to BETTA. NGC are currently anticipating Go-Live to be on 1st April 2005.
4. These provisions also provide for the process in relation to transitional consultations. NGC is required to inform the Authority of its consultation plans. Following this NGC shall consult in accordance with the instructions of the Authority.
5. A Grid Code transitional consultation document (Ref T01/04) has been issued to cover the provisions of OC2 data in advance of the cut-over to BETTA. Section 12.6 of that consultation made reference to 'a further consultation' which would consult on additional aspects of the code which require 'switching on' prior to Go-Live.
6. This consultation considers those additional aspects of the Grid Code which it is considered prudent to make effective in advance of BETTA Go-Live (assumed to be midnight (0000hrs) on 1st April 2005).
7. NGC has informed the Authority of its intention to consult on the issues in this consultation and has been instructed by the Authority to do so directly with parties likely to be affected by such requirements.
8. This consultation is concerned with 'cut-over' requirements, as covered for under General Conditions GC.A3.1, in relation to the period immediately prior to Go-Live where parts of the Grid Code will need to be activated for Scottish Users prior to Go-Live. Activation in the context of this consultation is the switching on of obligations for Scottish Users to comply with the obligations listed in Appendix 1 to this consultation which will take effect before Go-Live and which will reside in the transition section of the GB Grid Code General Conditions.
9. The transitional requirements in the Grid Code can be broadly split into three main areas: Energy Balancing (frequency control), Transmission Despatch (switching) and market reporting. NGC have looked at the cut-over process for each of these areas and it is our view that, in terms of the Grid Code, only Energy Balancing requires explicit provision in the Transitional section of the Grid Code.
10. Following receipt of comments on the issues contained in this Paper, NGC intends, in accordance with the instructions of the Authority, to send to the Authority :-

-
- (a) a report on the outcome of its review, including this consultation process;
 - (b) the proposed revisions to the Grid Code which NGC reasonably thinks fit for the achievement of the objectives of the Grid Code referred to in Conditions 14 and 19 of the Transmission Licence and the General Conditions of the Grid Code; and
 - (c) any written responses received in relation to this consultation.
11. The report to the Authority and any responses not marked as confidential will subsequently be made publicly available on NGC's website.
 12. The revisions to the Grid Code proposed by NGC and sent to the Authority then require approval by the Authority and will, if approved, come into force on such date (or dates) agreed between NGC and the Authority. NGC will notify interested parties of that date once the Authority has directed the modification.

Overview of process

13. Of the three main areas referred to earlier, Energy Balancing, Transmission Despatch and market reporting, this consultation proposes that only Balancing Codes 1 and 2 and Operating Code 7 are affected.
14. Market reporting prior to Go-Live is to be carried out exclusively by Elexon via the Elexon website. The exact details of this reporting are being covered in the Elexon transitional consultations. For this reasons the activation of Balancing Code 1 prior to Go-Live excludes BC1.5.1, BC1.5.2 and BC1.5.3. Therefore no changes to the Grid Code are considered necessary for cut-over purposes in relation to market reporting.
15. The high level approach for Transmission Despatch is that Scottish Users should continue to liaise with the respective Scottish system operator under the Scottish Grid Code up to Go-Live. After Go-Live Users should liaise with NGC as required under the GB Grid Code (except for as specifically provided for in the GB Grid Code i.e. OC8). For a period before Go-Live we expect that transmission licensees will be exchanging information on transmission despatch that may have an effect on or after Go-Live. This is therefore the reason why no changes to the Grid Code are considered necessary for cut-over purposes in relation to transmission despatch.
16. For Energy Balancing, as with Transmission Despatch, the process will be for Users to liaise with the existing system operator up to Go-Live and NGC after Go-Live. Although, in order to maintain system security immediately after Go-Live and for NGC to forecast for the following day, it will be necessary for NGC to be provided with the data submitted under BC1 in the normal timescales i.e. initially at 1100 hrs the day before Go-Live and updated until Gate Closure.
17. In order to facilitate a smooth change over, NGC will also require the facility, under BC2, to issue instructions from 2300hrs (1 hour before Go-Live) in relation to the period after Go-Live only. NGC will not issue despatch instructions to Scottish Users covering the period before Go-Live. The wider

obligations in BC2 will also need to become active from 2300 hrs, to cover the period after Go-Live, in respect of the data previously submitted under BC1. Again, as with Transmission Despatch, the Scottish system operators will be liaising with NGC on the conditions on the Scottish system prior to Go-Live.

Overview of BC1 and BC2

18. BC1 covers the submission of data to the GBSO in advance of Gate Closure. From this data NGC ascertains which BMUs will be connected to the transmission system at any given time, and whether the combined electrical output is sufficient to meet the national electricity demand at that time. NGC consider whether those BMUs indicated to operate will enable them to ensure the integrity of the GB Transmission System and compliance with the security and quality of supply standard is maintained.
19. Under BC1, NGC principally receives the following data items:
 - a) Physical Notification Data: providing a time-profiled planned MW delivery or consumption for each BMU. This is the level at which the BMU is planned to operate in the absence of any technical problems or instructions from NGC. It is a compulsory data item.
 - b) Maximum Import/Export Data: indicating the maximum MW delivery or consumption for each BMU. This indicates the maximum delivery or consumption volume that may be instructed. NGC may not issue an instruction which would take a BMU beyond this level.
 - c) Dynamic Data: indicate the parameters by which the BMU will change its input or output in response to a instruction from NGC. Any instruction from NGC must adhere to these dynamic parameters.
 - d) Bid Offer Data: are volumes and associated prices by which NGC may alter the physical input or output of a BMU. Trading agents may only provide Bid Offer Data if their BMU has installed an electronic terminal for receipt of such instructions from NGC.
20. BC1 requires that this data is provided for all BMUs (including interconnector BMUs) by 1100hrs on the day before the operational day (which starts from 0500hrs the following day). However, this data may be provided to NGC up to 5 days in advance.
21. Following initial submission by 1100hrs on the day ahead of the operational day, BC1 obliges BM Participants to use reasonable endeavours to ensure the data held by NGC is accurate at all times. All data items submitted under BC1 can be revised up until, but not beyond, Gate Closure for the settlement period to which they apply.
22. In the event that the data items referred to within BC1 are not submitted for a BMU by 1100hrs on the day ahead, NGC creates BC1 data in accordance with the published Data Defaulting Rules (contained within the Data Validation, Consistency and Defaulting Rules, available from NGC's industry information website). In general, with the exception of the dynamic data set, NGC's systems will initially be populated with zeros for all User submitted data. Dynamic data will be set to normal values. If no other data is submitted this will be used in the defaulting routine. Therefore NGC would encourage

Scottish Users to submit more realistic data prior to 1100 hrs on the day before Go-Live

23. BC2 details the actions and interactions between NGC and BM participants after Gate Closure. NGC takes the most recent submission of data under BC1 to be the final notification for a BMU. BC2 obliges BM Participants to adhere to good industry practice by operating their BMUs in accordance with the data provided to NGC, unless technical or safety considerations require them to do otherwise, or unless they receive an instruction to deviate from NGC.
24. Under normal circumstances, an instruction from NGC for a BMU to deviate from its notified operating regime will take the form of a Bid-Offer Acceptance (BOA). This will be issued in accordance with the prices and parameters declared in a BMUs BC1 submission prior to Gate Closure. Once accepted by NGC, a BOA forms a binding contract between NGC and the BM Participant for delivery or consumption on the specified BMU, unless technical or safety considerations prevent its delivery. NGC may issue BOAs at any point from Gate Closure until 2 minutes prior to the start time of the BOA.
25. BM Participants may not submit Physical Notification or Bid Offer data to NGC in respect of settlement periods that the Gate Closure has occurred. However, they may resubmit Maximum Export/Import and Dynamic Data from the control point of the BMU to reflect any changing conditions. Any BOAs subsequently issued will adhere to these revised parameters.
26. BC2 also details other instructions that NGC may issue to BM Participants from time to time for delivery by a specified BMU. Among others, these include:
 - a) Ancillary Service Instructions: these include instructions for the BMU to operate in frequency responsive mode, or to adjust the reactive power produced or consumed by a BMU. Such instructions are usually issued electronically and can be either coincident with, or independent of a BOA for active energy. NGC will issue Ancillary Service instructions in accordance with the relevant MSA or Ancillary Services Agreement for that BMU, and in accordance with the Maximum Export/Import limits and Dynamic Parameters provided under BC1 and BC2.
 - b) Emergency Instructions: these are issued by NGC when action is required from a BM participant in order to help preserve the integrity of the GB Transmission System. Instructions may depart from normal Balancing Mechanism operation and parameters declared under BC1 and BC2. BM participants should use all reasonable endeavours to respond to Emergency Instructions unless safety implications prevent them from doing so.

Description of the proposed amendments and their effects

27. In preparation for Go-Live, and in accordance with the normal arrangements in BC1, it is proposed that Scottish Generators inform NGC (through the submission of physical notifications) of the electrical output they expect their units to deliver from Go-Live. It is envisaged that through the Scottish Grid Code Scheduling and Despatch arrangements these will correspond to the despatch instructions they receive from the Scottish Grid Control centres. To assist with a smooth transition, the Scottish system operators will also liaise

with NGC directly in respect of despatch decisions in the final hours of operation under the Scottish arrangements.

28. From 2300hrs on the day before Go-Live NGC will be able to issue BOAs applicable from Go-Live. If issued, Users would be expected to begin to follow/deliver these BOAs at or from Go-Live. At Go-Live, the enduring GB arrangement will take effect, with Scottish generating stations following their Physical Notifications as submitted previously under BC1.
29. It is feasible that between the first GB Gate Closure (2300hrs) and Go-Live (midnight), Scottish Generators may be issued with instructions from the Scottish Grid Control Centres which result in them being unable to meet the Go-Live PN position they have advised to NGC. In this event they should follow the Scottish despatch instruction until Go-Live and immediately post Go-Live take controlled actions to return to their PN in accordance with their declared (to NGC) ramp rates. If NGC requires an alternative course of action it will issue BOAs accordingly.
30. If a Scottish Generator is unable to meet its Physical Notification at Go-Live, and is unable to resubmit it to NGC because Gate Closure has passed, they should re-declare their Maximum Export/Import parameters in accordance with BC2.
31. Up to Go-Live, NGC may issue BOAs to the Scottish Interconnector BMUs against the physical notification and Bid Offer data provided by them under BC1. In the final two settlement periods prior to Go-Live, NGC will liaise with the EISO to understand the implications, if any, on the new GB BMU(s) at the point of Go-Live before the issue of any BOA to the existing Scottish Interconnector BMUs. This is expected only to be an issue where the BOA would not allow the interconnector BMU to return to FPN prior to Go-Live and therefore give a potential need for a GB based BOA to commence immediately at Go-Live for the relevant new Scottish BMU(s).

Enabling BC1

32. In order to achieve secure and economic energy balance, NGC will begin its in depth analysis of the energy position on the GB Transmission System at the day ahead stage, generally following receipt of the BC1 submissions at 1100hrs. In order to carry out this analysis for the first day of BETTA Go-Live, information is required on Scottish Generating Units by this point. The analysis is repeated continually up to real time and activating the relevant sections of BC1 at 1100hrs would ensure all BM participants (including Cascade Hydro Schemes and Embedded Exemptable Large Power Stations) provide NGC with accurate data for its analysis.
33. It is proposed that this should be achieved by activating at 1100hrs on the day before Go-Live, those sections of BC1 under which BM Participants submit data pertaining to the operation of their BMUs.
34. Although it is proposed that the obligations under BC1 be formally switched on at 1100hrs on the day prior to BETTA Go-Live, NGC will be enabling submissions from Scottish BM Participants prior to this as set out in the legal drafting. As noted previously, under normal arrangements participants can submit BC1 data up to 5 days prior to the operational day. For the BETTA Go-Live date of 1st April, this would permit first submissions to be made on

Sunday 27th March (Easter Day). Experience with enabling submissions from new E&W participants indicates that despite qualification testing, IS issues are often encountered when the first 'live' submission is made. To minimise the risk of these interrupting normal operations on Easter Day, it is proposed to limit advance submissions from Scottish Users for the operational day of BETTA Go-Live to 3 days for new participants only. Thus for these participants, NGC's systems would accept submissions from 1100hrs on 29th March 2005.

35. Activation of the relevant sections of BC1 at 1100hrs on the day prior to BETTA Go-Live provides for participants to submit data relevant for the periods from the start of the following operational day. The Grid Code defines the operational day as starting at 0500hrs. In order cover the period from Go-Live up to 0500hrs NGC propose that this be amended for Scottish Users which would allow for submission of data from Go-Live to 0500hrs. Consequently, submissions made by Scottish Users by 1100hrs on 31st March 2005 should cover the period 0000hrs 1st April 2005 to 0500hrs 2nd April 2005.
36. Activation of the relevant sections of BC1 and the additional provision covering from Go-Live up to 0500hrs as described in the previous paragraph allows for participants to submit data for operational periods from BETTA Go-Live. However, to ensure a smooth transition from the existing through to the enduring GB arrangements, NGC is actively encouraging participants to submit accurate data for new Scottish BMUs for periods in advance of BETTA Go-Live. For new or existing participants with BMUs that become active at BETTA Go-Live, submissions will be accepted from 1100hrs on 29th March 2005 for any periods beyond 1200 on 29th March 2005. Any data submitted for such BMUs for periods in advance of BETTA Go-Live will not be released to the BMRA in either raw or aggregated form, nor used to set any imbalance prices until BETTA Go-Live.
37. In addition, the Scottish system operators will be liaising directly with NGC for several hours prior to Go-Live. This will include the Scottish system operators informing NGC of Scottish despatch instructions that will or may have an impact on cut over and NGC informing the current Scottish system operators of relevant GB data submissions and plans at the point of Go-Live.
38. Gate Closure for the first period of system operation under BETTA occurs at 2300hrs of the previous day. As explained previously, beyond this point, BM Participants are unable to issue further updates to physical notifications or Bid Offer Data. To enable participants to provide revisions to BM Unit data post Gate Closure, it is proposed to activate BC2 as detailed below.

Enabling BC2

39. As described above, the Grid Code permits NGC to issue BOAs to a BMU at any time after Gate Closure. To ensure that Scottish BMUs are not discriminated against immediately post BETTA Go-Live, NGC requires the ability to issue BOAs to Scottish BMUs from the first Gate Closure. It is therefore proposed that BC2 be activated from 2300 hrs 31st March 2005 to allow this. For the avoidance of doubt, any such BOA issued would not require the commencement of any energy delivery or consumption (including ramping up or down) from a Generator before Go-Live.

40. In addition to issuing BOAs from Gate Closure, the GB Grid Code permits NGC to issue ancillary service instructions and emergency instructions. To avoid discrimination and ensure NGC can operate the GB Transmission System in accordance with its licence obligations, the ability to issue such instructions from the first BETTA Gate Closure for delivery post BETTA Go-Live is required.

OC7 - System Warnings

41. To ensure Scottish Users receive the system warnings applicable for the periods after Go-Live NGC also propose to switch on from 1100 hrs 31st March 2005 the relevant section in OC7. These are referred to in both BC1 and BC2.

IT System Outages

42. To effect the transition to BETTA, NGC envisage the need for 2 IT system outages. Formal confirmation of the dates, times and expected duration for these will be provided to market participants in the normal way (via the System Warnings and Other Messages screen on the BMRS). However, it is envisaged that the first outage will be during early March and the second outage during the afternoon of 31st March 2005.

PROPOSED CHANGES

43. Based on the assumption that BETTA Go-Live date will be midnight on 31 March 2005, it is proposed to insert additional requirements in the transition section of the General Conditions:

BC 1: proposed activation time: 11:00 hrs 31st March 2005 (excluding BC1.5.1, BC1.5.2 and BC1.5.3)

BC1 generally provides for the submission of data for operation of the Balancing Mechanism. It contains a description of the data items that should be submitted and their associated submission timescales. It also provides for the submission of data at the day ahead by Network Operators. Information is provided regarding constraints and embedded generation restrictions that NGC may need to take into account in the operation of the Transmission Network. In addition, it provides for NGC to identify and agree with Users, usually at the day ahead stage, special actions that the User may be required to undertake either pre or post fault.

In addition a transitional provision to cover data for the period from Go-Live to 0500hrs. This effectively extends the submission for the following operation day by 5 hours i.e. 29hrs from Go-Live to 0500hrs on Go-Live +1day.

Users should note that although the data defaulting mechanism described earlier will be used, the obligation in BC1.4.3, '**BM Participants** should use reasonable endeavours to ensure that the data held by **NGC** in relation to its **BM Units** is accurate at all times', covers all the data held by NGC, including that for the period from 00:00hrs to 0500hrs from Go-Live.

BC 2 proposed activation time: 23:00 hrs 31st March 2005

BC2 describes how NGC shall use the information supplied by BM participants under BC1 once the Gate Closure has passed and how participants should operate their BMUs which respect to this data. It also provides for the revision of certain BMU data after Gate Closure. BC2 also covers the process for NGC in issuing of BOAs and various other operational instructions.

OC7.4.8 proposed activation time: 11:00 hrs 31st March 2005

This will ensure Scottish Users will receive the appropriate system warnings, if any were to be issued prior to Go-Live.

- 44. The proposed text that supports these changes is shown in Appendix 1 as double underlined.

COMMENTS

- 45. NGC would be grateful to receive your comments on, or any suggestions you may have in relation to, these proposed amendments to the Grid Code, and any additional views in relation to further activation of the Grid Code for Users in Scotland prior to Go-live.
- 46. All comments would be welcomed and should be sent to NGC by 31 January 2005. Two weeks have been added on to the normal consultation timetable to allow for the holiday period. NGC will review and respond to the comments and then prepare its report to the Authority.
- 47. Respondents should note that unless marked as confidential any responses to this consultation will be published on NGCs Industry Information website. All written responses, whether marked as confidential or not, will be sent to the Authority.
- 48. If you wish to discuss any aspect of this consultation please contact Patrick Hynes on 01926 656319 / patrick.hynes@ngtuk.com or Matthew Ray on 01189 363058 / matthew.ray@ngtuk.com .
- 49. Your formal responses may be:-

Posted to: David Payne
 Industry Codes
 Commercial Frameworks
 National Grid Company plc
 National Grid Transco House
 Warwick Technology Park
 Gallows Hill
 Warwick
 CV34 6DA

Emailed to: david.payne@ngtuk.com

APPENDIX 1

Additional text for GC.A2

GC.A2.13 Cut over

- (a) The provisions of **BC1** (excluding BC1.5.1, BC1.5.2 and BC1.5.3) shall apply to and be complied with by **Scottish Users** and by **NGC** in respect of such **Scottish Users** with effect from 11:00 hours on the day prior to **Go-Live**
- (b) Notwithstanding (a) above, **Scottish Users** may submit data for **Go-Live** 3 days in advance of **Go-Live** on the basis set out in the **Data Validation, Consistency and Defaulting Rules** which shall apply to **Scottish Users** and **NGC** in respect of such **Scottish Users** on that basis and for such purpose.
- (c) The **Operational Day** for the purposes of any submissions by **Scottish Users** prior to **Go-Live** under a) and b) above for the day of **Go-Live** shall be 00:00 hours on **Go Live** to 05:00 hours on the following day.
- (c) The provisions of **BC2** shall apply to and be complied with by **Scottish Users** and by **NGC** in respect of such **Scottish Users** with effect from 23:00 hours on the day prior to **Go-Live**.
- (e) The provisions of **OC7.4.8** shall apply to and be complied with by **Scottish Users** and by **NGC** in respect of such **Scottish Users** with effect from 11:00 hours on the day prior to **Go-Live**.
- (f) In order to facilitate cut over, **Scottish Users** acknowledge and agree that **NGC** will exchange data submitted by such **Scottish Users** under BC1 prior to Go-Live with the Scottish system operators to the extent necessary to enable the cut over.