SP Transmission & Distribution

SP T&D

Your ref

Our ref DT/JM

Date 18 Jun 2004

Contact/Extension

David Thornton /

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David Halldearn
Director, Scotland & Europe
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9 Millbank
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Dear David

Response to Consultation on the GB Grid Code

Please find annexed the SP Transmission response to the above consultation. As ever should you wish to discuss any aspect of this response then please do not hesitate to contact me.

Yours sincerely

David Thornton
BETTA Programme Manager

SP Transmission Limited (SPT)

GB Grid Code

1. INTRODUCTION

SPT welcomes the revised drafting of the GB Grid Code, which was recently published alongside the most recent drafting for the STC. SPT notes Ofgem's comments in the consultation that further drafting may have to be brought forward to the Grid Code in respect of certain areas such as safety, Black Start and communications as debate on these issues is taken forward during STC drafting. SPT intends to play as full a part as possible in this development, and hopes that our comments in this paper will help the process.

This paper should be read in conjunction with two separate papers, our response to the recent STC consultation, and a paper which straddles both consultations, "Grid Code Back Off Provisions for SO-TO Code". The latter paper forming Appendix A hereto attached.

2. MATTERS OF INTEREST

Safety remains a matter of concern to SPT. We recognise though that there is ongoing progress in this matter. Along with others, we have proposed that safety matters are best dealt with in a single document under suitable governance. Ofgem have responded positively to this suggestion by including a Scottish version of OC8 within the Grid Code, which is "pointed to" by the STC, and recommending that the TOs have a seat on the GB Grid Code Review Panel. However, there are still additional matters that need to be fully and properly addressed.

The arrangements put forward between the STC and the Grid Code while requiring the TOs to comply with OC8, do not allow the TOs to require compliance by the Users of OC8. There is therefore a deficit in the legal authority, for example, in the TOs and the Users agreeing alternate procedures to RISSPs under the OC8. This could be dealt with by an appropriate change to the General Conditions of the Grid Code. Please see our detailed drafting below.

SPT welcomes recent discussions on how matters concerning the operational interface involving the GBSO, Users and the TOs should be brought to the attention of Users. Different possibilities have been discussed. One of these methods which SPT would favour, and which is consistent with the treatment of OC8, would be to include additional details for operational liaison for switching in OC7, and for Black Start in OC9.

For matters involving switching, similar care will need to be taken, so that as with OC8 there is no possibility of different texts between the Grid Code and the STC.

4. DETAILED COMMENTS

Definitions

Clause	Comment
Area Manager	SPT notes Ofgem's comments in the consultation, but considers that this definition is capable of clarification. Under BETTA, Site Responsibility Schedules for Scottish sites need to be signed by the User, the GBSO and by the TOs. The GB Grid Code wording in respect of relevant signatories, and the definitions of who they are should be clear on this matter.
Control Calls	The definition "A telephone call … control desk at an NGC Control Centre" is not broad enough to encompass the role of the Transmission Owners in either operational switching, emergency switching or Black Start
Control Telephony	The definition "Method by which User's Responsible Engineer and **NGC Control Engineer(s)** speak to one another … in both normal and emergency conditions" is not broad enough to encompass the role of the Transmission Owners in either operational switching, emergency switching or Black Start
Demand Control Notification Level	This is defined to be "12MW in England & Wales, 0MW in Scotland". Given the 5MW limit for small power stations in both the SPT and SHETL transmission areas, there is no reason for this level to be smaller than 5MW
Emergency Instruction	Both by law and under the STC, the Transmission Owners will be able and indeed required to give emergency instructions. The reference is not broad enough. Given that the TOs will not be involved in the Balancing Market – it may be necessary to add additional wording to the Grid Code (for example in OC7, Operational Liaison) and acknowledge that the TOs might give emergency instructions under a different part of the Code.
Licence	This is defined as "Granted to NGC or User". We question whether this definition is wide enough, given the inclusion in the Grid Code of clauses such as PC6.2.
National Demand	The definition of National demand is roughly "Electricity supplied from GSPs + embedded large + Transmission Losses". We question whether this definition works properly when you consider GSPs which export power to the transmission system
NGC Control Engineer	The definition "Nominated person employed by NGC to direct operation of GB Transmission System" is inconsistent with the TOs roles in Black Start and emergencies.
Operational Switching	The definition "Operation of Plant and Apparatus to the instruction of relevant NGC Control Engineer and User Responsible Engineer" does not recognise that NGC control engineers will not instruct the operation of plant in Scotland. While they will direct the configuration of such plant, instructions will be given by SPT and SHETL control engineers under their safety instructions
Permit for Work for	The reference is wrong. The reference should be to OC8A1

proximity for Work	Appendix E and OC8A2 and Appendix E. SPT will separately forward to Ofgem an example of a Permit to Work form for inclusion in Appendix E.
Point of Isolation	There is a small mistake in the reference which are to "OCA." rather than "OC8A."
Relevant Transmission Licensees	We suggest that SP Transmission Ltd (SPT) and Scottish Hydro-Electric Transmission Ltd (SHETL) should be spelt out in full against this definition.
Responsible Manager	The definition "For safety co-ordination in Scotland .. authorised by a User or Relevant Transmission Licensee to sign on behalf of that User or NGC as the case may be .. " is not sufficient. Under the current proposals for the STC, OC8 will be used as common text for both the Grid Code and the STC. While in the context of the Grid Code, the Relevant Transmission Licensee may be signing on behalf of NGC, in the context of the STC the Relevant Transmission Licensee will be signing on its own behalf (and the User will be signing on behalf of NGC). A proper definition is therefore needed.
Transmission Area	This is currently defined as "Has the meaning set out in the Transmission Licence". There is more than one Transmission Licence, and given the duality of NGC's transmission licence (as GBSO and as asset owner", this definition could cause confusion.
Transmission Licence	Is defined as "the Licence...". This is ambiguous as there will be more than one Transmission Licence.
Transmission System	Again the definition the "licensees transmission system" in the Transmission Licence is unlikely to work given the multiple ownership of the transmission system.
Transmission System Demand	This definition of demand suffers the same problem as "National Demand" in that it does not allow for exporting GSPs.

Construction of References

2(viii)	Given that the Transmission Owners will be bound into parts of the Grid Code via the STC, this clause ("nothing in the Grid Code is intended of shall derogate from NGC's statutory or licence obligations") needs widened to include both SPT and SHETL.

Planning Code

PC5.2	This confidentiality clause re CUSC application data needs to be extended to allow such data to be passed to the TOs (as for example PC5.4)
PC 6.2	Technical & Design Criteria. We note that these have been carried over from the Scottish Grid Code (SGC). SPT will separately respond to Ofgem in respect of governance of Planning Standards. However, there is a significant difference between the SGC and the GBGC in that the wording in the SGC makes these standards of potential application, while the proposed wording in the GBGC makes these standards mandatory. As an example of this, please see our comments below under PC C Part 2, item 7.
PC B	The example single line diagram should be generalised to show the ownership of any Transmission Owner.
PC C Part 2	SPT Technical Design criteria. Of the items in the list, we would

	note that items 1 and 3 are the current SPT Planning Standards, and will be covered by the proposed new GB SQSS. Neither is it necessary to include items 4 or 6, item 4 is covered in CC6.1.7, while item 6 is covered by CC6.1.5. Item 7 refers to ER P24 in respect of AC Traction Supplies. A number of new connections are no-longer being strictly designed to this standard because of the new two phase supply arrangements.

Connection Conditions

CC 6.2.1.2b	This clause as drafted does not properly handle equipment in Scotland prior to 1st January 1999, which would not have had a Bilateral Agreement with NGC at that time. It would be discriminatory to treat it differently from plant installed in England and Wales at that time.
CC 6.2.1.2b	SPT will bring forward a proposed list of proposed relevant technical standards.
CC 6.2.1.2d	Any other relevant standard in respect of quality assurance. To be approved by SPT as well as NGC
CC 6.3	General Generating Unit Requirements
CC 6.5.2	Description of Control Telephony – same problem as in the definition of Control Telephony – refers to NGC Control Engineers TO needs acknowledged for * routine switching, * emergency actions etc
CC7.3	Site Responsibility Schedules. These are for more than just site operational staff and NGC Control Engineers. They also inform the TOs' control engineers as well. Please see our comments under "Area Manager" in respect of signing Site Responsibility Schedules.
CC7.6.2	The statement "Where a Transmission Site contains exposed HV conductors, unaccompanied access will only be granted to individuals holding an Authority for Access issued by NGC" is incorrect. NGC have no authority to grant access to Transmission Sites owned by either SPT or SHETL. The relevant TO will grant access.
CC7.8	Users and NGC to make available staff to take necessary safety precautions. It will be the TO who will make staff available. This is another safety related issue which needs properly backed off and appropriate rights granted.
CC A1.1.2	This wording is not as wide as that in CC7.3.1, which acknowledges the role of TOs in Site Responsibility Schedules. Agreement to prepare an SRS as per the bilateral must be backed off with the TOs.
CC A1.1.8	Accuracy Confirmation. SPT is content that NGC and User are involved – what provision is to be made for TOs?
CC A1.1.9	See discussion under "Area Manager". The TOs need to be signatories as well as NGC.
CC A1.1.10	The Site Responsibility Schedules need to be distributed to Users, NGC and the TOs.
CC A1.1.12-15	Alterations and Urgent Changes. NGC will require to back off relevant rights and obligations to the TOs.
CC Appendix	SPT Site Responsibility Schedules contain more detail than shown on the pro-forma in the England & Wales Grid Code. Under the STC

	development process, we have brought forward detailed proposals. Once these are agreed, they should be included in the Grid Code as a regional variation.

General Conditions

GC4.2	The TOs have rights of review in respect of CC6.1, CC6.2, CC6.3, OC8 and GC11 only. Their legitimate interest is wider than that. For example, safety matters are dealt with in the Connection Conditions section 7. The Planning Code deals with technical and design criteria to which the TOs 'transmission systems' are planned and developed.
GC4.3 (xi)	Comment in respect of GC4.2 applies here.
GC4.6	Joint working arrangements in respect of STC. Reciprocal change provisions should be included to require the Grid Code Review Panel to consider changes initiated by the STC.
GC5.1	Communications with Users who are not Generators or Suppliers: All instructions and communications are between "NGC Control Engineer" at "NGC" "Control Centre" Provision has to be made to recognise that communications and instructions will be passed between the TOs and Users (e.g. switching, emergency instructions).
GC5.2	Comment in respect of 5.1 applies here.
GC5.3	See previous notes on Control Telephony
GC5.4	Since the TOs will be in communication with both NGC and Users, the TOs need to know if either NGC's or a User's control centre is moved. Users will need to know if a TO's control centre is moved.
GC6.1.1	Data and notices submitted either to NGC or to Users. Provision has to be made to recognise that data and notices will be passed directly between TOs and Users – as for example those envisaged under OC8A2.4.1.1(a).
GC6.1.3	Comment in respect of GC 6.1.1 applies here.
GC12	There needs to be a general permissive power to enable NGC to provide all data/information to the TOs where that is required by the General Conditions or by the STC.
GC13	The inclusion of clause 13 is unhelpful. We question the objective of its inclusion. The Grid Code is understood by SPT to be a technical code not capable of direct enforcement between Users except as a matter of contract under the CUSC. In other words the Grid Code is not a contract of itself. Any obligations contained therein are enforced through and given contractual effect by the CUSC only. To insert clauses specifically excluding TO enforcement and more worryingly stating that clauses are to be enforced by NGC detracts from the technical character of the document and implies that the Grid Code is a separate contract in its own right. If it is intended that the Grid Code will become directly enforceable as a contract in its own right by anyone, then SPT will expect that appropriate exclusion of liability clauses are also inserted which would specifically provide 3rd party rights to the TOs, in respect of such limitations. The question of inclusion of "boilerplate" would also need to be reviewed.
GC Annex	Scottish Electrical Standards for SPT. SPT will bring forward proposals to appropriately complete this schedule in respect of SPT's Transmission System.

Constitution

4.1.2	Comment in respect of GC4.2 applies.

Operating Codes

OC5.7	Black Start Testing. Since it is proposed that the TOs will be involved in Black Start, the TO will need to be involved in testing as well. The current drafting is not rich enough to describe the proposed arrangements in Scotland.
OC5	Table. Second line in table is incorrect CC6.1.5(b) is 2% in Scotland for Phase (Voltage) Unbalance. Third line of table only applies in England and Wales
OC6.4.1	Refers back to OC1. But OC1 points to OC6. Times based on 11.00 in OC6 but 10.00 in OC1.
OC6.2.2 OC6.5.3(b)	Demand reduction uniformly across GSPs. Need to add 6.5.3(b) to the list of exceptions
OC7	Generally. The code is not rich enough with regard to operational liaison. Please see the introductory remarks.
OC8A1, OC8A2	The document would be clearer to read if these sections were labelled OC8A and OC8B, thus reducing a level of numbering throughout
OC8A2	SPT are unsure how this document is to be backed off and enforced.
OC8A2.1.1	Should NGC be mentioned in OC8A2.1.1?
OC8A2.4.2.2	SPT welcomes this clause, but considers that this clause is an example of how thought needs to be given as to how the TOs and Users comply with these obligations.
OC8A2.3.1	Should NGC be included? As this code only applies in Scotland, the phrase "In Scotland" is redundant, and the Relevant Transmission Licensees should be included directly in the list. The Transmission Owners will need to be involved in safety co-ordination in respect of External Interconnections.
OC8A2.5.4.7	The proposals are different to those currently in the Scottish Grid Code which split work and testing into two distinct processes. This avoids any problems from differences of interpretation. If you allow "minor" testing under work conditions then both parties could be carrying out testing which individually is not a problem but when combined may become a safety issue. This also relies on User's knowledge of what may affect the Transmission system. SPT experience of some non-ESI Users is not reassuring in this matter. SPT considers that work and testing should be separated as per the current provisions of the Scottish Grid Code.
OC8A2.5.5.2	As in OC8A2.5.4.5, the text should read "number, including prefix and suffix (where applicable)"
OC8A2 Appendix E	SPT will separately provide an example Permit for Work form.
OC9.4	Black Start as described in OC9.4 is not rich enough to describe Scottish Black Start. As currently drafted it does not inform the User that the Transmission Owners will carry out Black Start in Scotland.

Balancing Codes

BC 2.6.2	Please see our remarks under Emergency Instruction. It may be necessary to either broaden this provision, or to put in other provisions elsewhere, such as in OC7.
BC2.9	Examples of emergency Instructions, and the requirement that Users will comply without delay, and may only be rejected on safety grounds. Please see our remarks under BC2.6.2. This clause must be carried over into any clause broadening the definition of emergency instructions to include TOs.

Data Registration Code

DRC	The England and Wales DRC Schedules have not been updated to reflect proposed changes to the GB Grid Code Schedule 5 – 50kV Schedule 6 – Load transfer capability 12MW Schedule 12 – Customer Demand Management 12MW Schedule 12 – needs references to Network Operator Demand Management in control phase (OC1 & OC6)

APPENDIX A **SP Transmission Limited (SPT)**

Grid Code

Grid Code Back Off Provisions for SO-TO Code (STC)

1. INTRODUCTION

Ofgem/DTI have recently set out more substantial drafting in respect of both the STC and the Grid Code to apply under BETTA. Based on these drafts SPT has been able to carry out some initial analysis on what provisions of the Grid Code will require to be backed off in the STC. The results of this analysis are included below. It is to be hoped that this will assist Ofgem with their ongoing detailed analysis and in particular will inform Ofgem of the areas where SPT consider that back-off provision should be made.

SPT continue to support the work of Ofgem and the DTI and trust that this note can form the basis of further Grid Code/STC drafting. As ever SPT would welcome the opportunity to discuss these areas in detail should this be deemed appropriate.

The purpose of this document is to set out SPT's high - level review of the Grid Code. This review identifies areas of the Grid Code that raise areas of legitimate interest to TOs. Please note that this review should be read in conjunction with SPT's responses to both the STC and Grid Code consultations of April and May respectively.

2. AREAS OF LEGITIMATE INTEREST TO SPT

Initial key areas of interest are now listed and discussed.

- Asset integrity is a key area of interest. Certain provisions of the Grid Code are designed to reflect the fact that User assets should not be operated in a manner that is damaging to TO assets. These provisions are important to the business of a TO.
- One of the TOs prime responsibilities is the planning and construction of their transmission networks and User connections. This requires an interaction between the technical standards to which both the transmission system and User plant and apparatus is designed, built and operated. The TOs need equal rights with NGC in setting these technical standards.
- A TOs continued ability to discharge its functions is a key matter. In order to do so it will require, for example, data and information. The transfer of that information must be provided for. The transfer of information must be recognised and accepted by Users, and provided for in the STC.
- Safety continues to be of paramount importance for SPT. SPT are pleased that the provisions of OC8 in particular have received some attention. However, some back-off provisions are required

in the STC to make these provisions fully effective. We have suggested some drafting in our STC response.

- There are other safety critical matters referred to within the Grid Code, which are not currently referred to or backed off in the STC. These include, for example, matters discussed under CC7.2 – CC7.8 and the CC Appendix such as Responsibility for Safety, Site Responsibility Schedules, Access and Maintenance. These must be properly treated between the Grid Code and the STC.
- Enforcement is a key matter. TOs must have the ability to either police Users or require that NGC does so. Users in breach should be subject to appropriate sanctions. It is essential, e.g. regarding asset integrity or compliance with appropriate technical standards that the TOs legitimate interests are protected.

3. MECHANISMS FOR PROTECTING SPT'S LEGITIMATE INTERESTS

We understand that the current Ofgem/DTI approach is that Grid Code obligations etc are backed off through the STC. We require that the GBSO will take full responsibility for the Users' actions as a consequence.

4. REVIEW OF THE GRID CODE

4.1 Planning Code

Clause	Comment
Planning Code	Generally, TOs should be able to require NGC to provide planning data (standard and detailed) derived from Users.
PC.2.1(b)	TOs should be able to require NGC to provide planning information derived from Users for planning and developing the system and for facilitating existing and proposed connections.
PC 4.3	TOs should be able to require NGC to provide data from Users submitted under this clause.
PC 4.4	TOs should be able to require NGC to provide all the relevant User data when making a connection application to the TO.
PC.4.5	TOs should be able to require NGC to seek further time to carry out more detailed studies, and to require Detailed Planning Data.
PC 5.5	TOs should be able to require NGC to update Planning data as values are confirmed or replaced by validated data.
PC.A.7	TOs should be able to require NGC to provide additional information on new types of configurations and operating arrangements.

4.2 Connection Conditions

Clause	Comment
Connection Conditions	Generally, TOs need to be able to require NGC to pass various information from Users to the TOs in respect of connections. Additionally, there are various matters in respect of connections which need to be agreed between NGC and the User. These agreements need to be agreed and backed off with the TO who may have various requirements arising from the design of a connection and its system.
CC.5.2(a)	NGC should be required to pass the relevant Data etc to the TOs
CC.5.2(b)	NGC should be required to pass the details to the TO.

CC.5.2(c)	As well as providing the information to the TOs, NGC should be required to agree with the TO whether such procedures are satisfactory.
CC.5.2(d)	NGC should be obliged to require the User to provide this information for the purposes of the TO in respect of Site Responsibility Schedules.
CC.5.2(e)	NGC should be required to pass this information to the TO.
CC.5.2(f)	NGC should be required to pass this information to the TO.
CC.5.2(g)	NGC shall require the User s to provide this information to the TO.
CC.5.2(h)	The STC should facilitate the TOs in taking the lead role in agreeing RISSP prefixes with Users, and this clause needs appropriately amended and backed off. (Note that there is a variation in the proposed Scottish version of OC8).
CC.5.2(i)	NGC should be required to ensure that this information is passed to the TO.
CC.5.2(j)	NGC should be required to ensure that this information is passed to the TO.
CC.5.2(k)	NGC should be required to ensure that this information is passed to the TO.
CC.5.2(l)	NGC should be required to ensure that this information is passed to the TO.
CC 6.1	General: NGC should be required to ensure to the TO that the operation of the transmission system meets the relevant requirements of CC 6.1
CC6.1.4	Before agreeing any voltage variation with a User, NGC must first agree that variation with the TO and the agreement appropriately backed off. For the protection of the TO's assets, NGC should be required to ensure that the voltage limits in CC 6.1.4 must apply across the whole of the TO's transmission system, and not just at the User connection points.
CC.6.1.5(a)	Any agreement regarding harmonics in a NGC/User bi-lateral should be agreed beforehand with the TO and appropriately backed off. TOs shall be entitled to require NGC to ensure that relevant planning levels specified in G5/4 are not exceeded.

CC.6.1.5(b)	Provision should be made that requires NGC to operate within these parameters.
CC.6.1.7	NGC should be required to ensure that User's load continues to meets appropriate characteristics, and to operate within design limits for fluctuating load.
CC6.2	General: NGC should be required to ensure to the TO that Users connections meet the required standards, and any specific technical conditions agreed with the Users in a Bilateral Agreement. Any agreements to vary, or special conditions required by NGC or the TO must be agreed and suitably backed off.
CC.6.2.1.1(c)	NGC should be required to advise the User of the earthing requirements specified by the TO.
CC6.2.1.2(a)	NGC should be obliged to require the User to comply with any of the relevant Scottish Technical Standards reasonably required by the TO.
CC.6.2.1.2(c)	NGC should be required to pass this information to the TO.
CC6.2.1.2(d)	NGC should be required to assure the TO that User Plant and Apparatus meets the relevant requirements, and that any equivalent standard is agreed with the TO.
CC6.2.2.2.2(a)	Any fault clearance times agreed in a Bilateral have first to be agreed with the TO and appropriately backed off.
CC6.2.2.2.2(b)	NGC should be required to facilitate co-ordination of protection settings with Users to the satisfaction of the TO.
CC6.2.2.2.2(c)	NGC should be required to assure the TO that User equipment meets these characteristics
CC6.2.2.2.2(d)	NGC should be required to assure the TO that User equipment meets these characteristics
CC.6.2.2.3.1	Any requirements for the provision of Protection equipment should be agreed with the TO and backed off prior to its inclusion in a Bilateral Agreement
CC.6.2.2.3.2	Requirements for circuit breaker fail protection should be agreed and backed off with the TO prior to incorporation in a Bilateral Agreement
CC.6.2.2.3.4	Requirements for pole-slipping protection should be agreed and

	backed off with the TO prior to incorporation in a Bilateral Agreement.
CC.6.2.2.5	Any protection and relay settings must first be agreed and backed off with the TO, before their inclusion in a Bilateral Agreement.
CC.6.3.2.	Requirements for Users other than Generators are similar to those for Generators. NGC will be required to ensure that Users comply with the general requirements and specific requirements in the Bilateral Agreement. NGC will be required to reach agreement with the TO on specific details before incorporation in the Bilateral Agreement, and these details will need appropriately backed off.
CC 6.3	General: NGC should be required to ensure to the TO that Users Generating Units meet the required standards, and any specific technical conditions agreed with the Users in a Bilateral Agreement. Any agreements to vary, or special conditions required by NGC or the TO must be agreed and suitably backed off.
CC 6.3.2	NGC will be required to ensure that Users comply with these requirements.
CC.6.3.3	NGC will be required to ensure that Users comply with these requirements.
CC.6.3.4	NGC will be required to ensure that Users comply with these requirements.
CC.6.3.6	NGC will be required to ensure that Users comply with these requirements.
CC.6.3.7	NGC will be required to ensure that Users comply with these requirements.
CC.6.3.8	Any requirements for excitation control facilities must first be agreed with the TO, before their inclusion in a Bilateral Agreement.
CC.6.3.10	NGC will be required to ensure that Users comply with these requirements.
CC.6.3.11	NGC will be required to ensure that Users comply with these requirements.
CC 6.4.2	NGC will be required to ensure that Users comply with these

	requirements.
CC.6.5.4	The TO should be able to oblige NGC to require Telephony for control purposes between the User and the TO. This is needed for both routine switching and for emergency actions.
CC.6.5.6	NGC shall be required to specify any additional TO requirements in respect of alarms and indications needed for the safe control of the connection.
CC.6.6.1	The TOs should be able to require NGC to make provision for any additional TO system monitoring requirements to ensure the integrity of our system.
CC7.2.1	The TO shall require NGC to require that the User complies with the TO safety rules.
CC.7.2.3	NGC shall be obliged to comply with the opinion of the TO when forming its response to the User.
CC 7.2.4	The TOs need to be able to require NGC to apply for permission on its behalf.
CC7.2.5	It would be useful to have rights to guarantee the TO of the protection afforded by this clause
CC.7.2.6	NGC to procure that the User will notify the TO.
CC 7.2.7	The TOs will require NGC to procure the Users co-operation in agreeing to, and adhering to the Site Responsibility Schedule
CC 7.3	The TOs will require NGC to procure the Users co-operation in agreeing to, and adhering to the Site Responsibility Schedule – recognising that the Site Responsibility Schedule is also for the benefit of the TOs.
CC.7.4.7	NGC should be required to ensure this information is prepared and to pass this information to the TO.
CC.7.4.8	NGC must procure that the User will carry out these obligations and that the documents are distributed to the TOs..
CC.7.4.10	NGC should be required to ensure that this information is prepared and thereafter that NGC pass this information to the TO.
CC.7.4.13	NGC should carry out this role for the TO where they wish to change numbering. Where the User wishes to change the numbering then NGC shall procure that new drawings are made

	available to the TO.
CC.7.5	TOs will have to prepare drawings for Users – and need to agree with NGC the relevant timings to be inserted in the Bilateral Agreement. NGC will be required to procure User drawings for the TOs in agreed timescales. Any changes to drawings will have to be after proper consultation with the TO.
CC.7.7	NGC to procure that the User will carry out these obligations, and to procure appropriate rights of inspection of test results and maintenance records.
CC8.2	If an enhanced capability (eg reactive power) is required to facilitate a connection, then the TO will need to require NGC to procure this service as a condition of the connection, and to assure the TO of its existence in a back-off agreement.
CC.A.1.1.2	NGC to procure that the User will carry out these obligations.
CC.A.1.1.9	NGC to procure that the User will carry out these obligations, and also to sign it itself
CC.A.1.1.10	NGC to procure distribution of the Site Responsibility Schedules.
CC A.1.1.11	NGC to procure that the User will make the Site Responsibility Schedules readily available, and will do so itself.
CC.A1.1.12-15	NGC to procure that the User will carry out these obligations.
CC.A.1.1.16	NGC should be required to pass this information to the TO.
CC.A.1.1.17	Where a User notifies NGC of the intention to de-commission then NGC must inform the TO

4.3 Operating Codes

Clause	**Comment**
OC.2.4.1	In general NGC should be required to pass the relevant outage information to the TO. This information is clearly needed to allow the TO to plan their system outages.
OC.2.4.2	In general NGC should be required to pass this information to the TO. Information such as performance charts will have a bearing on planning the system

OC.5.4	The TOs may require to carry out monitoring of their systems, which may include monitoring of Users against CC.5.4.1(b). The TOs should be able to require NGC to make provision for any additional TO system monitoring requirements.
OC.5.5	NGC should (in limited circumstances) be required to issue an instruction requiring a test at the instigation of the TO.
OC7	General: OC7 needs to be amended to reflect the TOs role in switching on the network, and their interaction with Users. Users need to clearly understand the distinction in the roles played by the GBSO and the TOs, how the roles of the GBSO and the TOs can change under emergency conditions, and who to contact and who might contact them under different circumstances. With such additions to OC7, appropriate rights need to be backed off to the TOs, and NGC to require Users to comply with these obligations.
OC7.4	Since the TOs are responsible for monitoring their own assets on their network, the TOs will require NGC to report on operations or events that impact on each TO's network. Similarly, NGC should pass on Transmission System Warnings to the TOs as well as to Users.
OC.7.5	NGC should advise the relevant TO of Integral Equipment Tests (IET), and allow the TOs to adequately assess the impact on their system, and to respond and agree to the notification appropriately.
OC8	General. The TO has significant responsibilities for safety. Its rights and obligations under OC8 need to be properly backed off. As one example, NGC should be require that Users supply a list of safety co-ordinators to the TO.
OC9.4	General: This code must be amended to recognise the proposed role of the TOs in Black Start in Scotland, and to give them appropriate rights to implement the agreed Black Start plans. These rights and the Users corresponding obligations must then be backed off into the STC.
OC.9.6	During a joint system incident, the TOs management structure will need to be in contact with Users as well as NGC as it develops and executes its service restoration proposals to

	allow NGC to configure the network. Rights in respect of incident management centres need to be backed off.
OC.10	Following events on the network, NGC should be required to assist the TOs in understanding the impact of events on their assets through event reporting, providing additional information to the TOs where reasonably requested, and participating in joint investigations with the TOs.
OC11`	The TOs rights in respect of numbering and naming of its plant and apparatus must be respected and backed off
OC.12	A TO needs to be able to require NGC to in turn require a system test. All other system tests should require NGC to advise the TO.
BC2	General: BC2 covers the issuing of emergency instructions. On safety grounds, the TOs will have rights to issue emergency instructions and these will need backed off under the Grid Code. While the rights to issue emergency instructions under BC2 could be backed off, it may be preferable to put in rights in respect of emergency instructions under OC7 and to back those off.