Regulatory framework for transmission licensees under BETTA

Volume 3: The SO – TO Code and other contractual interfaces between transmission licensees

An Ofgem/DTI consultation

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1. Scope of this volume

1.1. Volume 2 of this consultation set out the legal framework that will underpin the relationship between transmission licensees under the British Electricity Trading and Transmission Arrangements (BETTA). This framework includes the Electricity Act 1989 (as amended)(the Electricity Act), transmission licences, regulated codes (which may be contractually enforceable), contractual arrangements that are required by regulated codes and freestanding, voluntary contractual arrangements. Volume 2 also proposes criteria to be addressed in determining where to place the rights and obligations of transmission licensees within that legal framework.

1.2. Volume 2 discusses matters that Ofgem/DTI propose should be covered in transmission licences under BETTA, including licence conditions relating to the interface between the GB system operator and transmission owners. It also seeks views on the possible introduction of high level reinforcing licence obligations upon transmission owners obliging them to take all required action under the relevant contractual arrangements to ensure that the GB system operator is able to fulfil its obligations under the GB Balancing and Settlement Code (BSC), GB Connection and Use of System Code (CUSC) and GB Grid Code[1]. It also proposes placing equivalent obligations upon the GB system operator.

1.3. The purpose of this volume is to set down and consult upon the scope and nature of the matters that it is proposed should be covered under the legal arrangements between the GB system operator and transmission owners (and between transmission owners, where appropriate) under BETTA. This volume refers where appropriate to matters addressed in volumes 2 and 4 of this paper and in other related consultation papers and does not seek to set out matters that are addressed in the other volumes of this paper or those related documents. As such, this volume should be read in conjunction with the other three volumes that comprise this paper (but, as a minimum, in conjunction with volume 1).

[1] Reinforcement obligations are considered in greater detail in chapter 6.

1.4. In considering the way in which interface arrangements between transmission licensees should be set down, two principal questions arise:

- what is the nature and scope of the interface arrangements that need to be put in place between the GB system operator and transmission owners (and possibly between transmission owners themselves) for BETTA go-live, and
- what should be the ongoing governance of any such arrangements.

1.5. In order to facilitate this discussion, the nature of the interface arrangements between the GB system operator and transmission owners are first set out. Options are then considered for the ongoing governance of these interface arrangements. One such option is a suite of documents comprising a regulated code, the system operator-transmission owner code (the STC) and other categories of document that are required by the STC and will apply between the GB system operator and one or more transmission owners.

1.6. Chapter 2 of this volume considers the nature of the relationship between the GB system operator and transmission owners. Chapter 3 proposes criteria to be used in order to determine the appropriate category of governance to apply to each of the specific matters that constitute the GB system operator – transmission owner relationship. Chapter 4 discusses the form of a regulated code which may be used to set down elements of the GB system operator – transmission owner relationship and Chapter 5 discusses the relationships between this new code and other industry codes. Chapters 6 and 7 include an initial discussion of the scope of the actual provisions that need to be established in order to define the relationships between the various transmission licensees under BETTA, and an initial suggestion as to which of these should be included in the various governance categories that have been identified.

Interaction with "deep SO" incentives

1.7. At present, the system operator– transmission owner (SO-TO)[2] relationship is internalised within the existing transmission licensees who carry out all transmission related activities within their respective authorised areas. In the case of existing arrangements for NGC in England and Wales, different revenue restrictions apply to the provision of transmission network services and to the procurement and use of balancing services[3]. These two revenue restrictions[4] are often referred to as the "TO price control" and the "SO incentives" respectively. The use of the terms "TO" and "SO" in this context reflects the general nature of the activities that are funded from these two separate revenue restrictions[5].

1.8. There is no equivalent of the SO incentive within the revenue restrictions set out in the licences of the two Scottish transmission companies.

1.9. The scope of activities that it is envisaged will be carried out by transmission owners and the GB system operator under BETTA do not necessarily map directly onto the activities covered by NGC's existing transmission network activity and balancing services activity. Whilst it is intended that the incentive arrangements applying to NGC in England and Wales will be used as a basis for the incentives to apply to the GB system operator and transmission owners under BETTA, it is recognised that it will be necessary to consider adjustments to these arrangements in order to reflect the scope of activities, organisational separation and the externalisation of the interface between the GB system operator and transmission owners under BETTA. This is discussed further below.

1.10. Under the SO incentive schemes that have been in place since the New Electricity Trading Arrangements (NETA) in England and Wales were introduced, NGC is allowed to recover the actual costs of electricity balancing and system

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[2] In this instance, SO and TO are the terms which are used to describe the activities covered by the different elements of the existing NGC revenue restrictions.
[3] See special condition AA5A of NGC's transmission licence.
[4] Also referred to as price controls, i.e. the SO price control and the TO price control.
[5] In fact transmission network services comprise all services provided by the licensee as part of its transmission business other than excluded services and the balancing services activity in England and Wales. The balancing services activity is essentially defined as the procurement and use of balancing services.

balancing, adjusted by incentive payments or receipts relating to these costs. The value of any incentive payments or receipts depends upon NGC's performance in relation to a cost target set in advance. If NGC's costs are below the target, it keeps a proportion of the reduction in costs as an incentive payment. Conversely, if its costs are above the target, a proportion of the costs in excess of the target is deducted from NGC's revenue. NGC's overall gains or losses can be limited by applying a cap on payments and a floor on losses. This type of scheme is called a sliding scale or profit sharing incentive. In setting incentive scheme targets, sharing factors, caps and floors, Ofgem aims to provide NGC with a fair balance of risk and reward whilst protecting the interests of customers. The current SO incentive is split into internal and external cost streams. The SO internal costs cover operating costs and capital expenditure other than that related to system reinforcement. The external costs relate to balancing service contracts and electricity purchases and sales for balancing purposes.

1.11. NGC's current SO price control and incentives are intended to expire on 31 March 2003. Accordingly, in October 2002, Ofgem published a consultation document[6] ("the October 2002 initial consultation") that proposed enhancing NGC's SO price control for the period from 1 April 2003 by including "deep" incentives. The deep incentive would encourage NGC to respond to signals from market participants to release transmission capacity incremental to that for which funding has already been allowed in the TO price control (the baseline transmission capacity). Equally, the deep incentives would encourage NGC to make efficient trade-offs between transmission constraint costs and network investments.

1.12. The October 2002 initial consultation proposals comprised a number of elements, as follows:

- a new SO transmission capacity release incentive. Essentially this proposed to give NGC the potential to earn enhanced rates of return for releasing transmission capacity incremental to that included in the

[6] 'NGC system operator incentive scheme 2003/04 – 2005/06: Initial consultation document' Ofgem,

baseline transmission capacities, when the market signals that there is a need for such capacity. The incentive would also expose NGC to the risk that it will fail to achieve its regulated rate of return on these assets for up to 5 years.

- a new SO transmission capacity buy-back incentive. This would require NGC to provide users with access to its transmission system in the form of contractually firm entry and exit transmission capacity rights. NGC would have to buy-back, at market prices, transmission capacity rights which it had sold but could not honour due to there being insufficient actual transmission capacity available. This is essentially a transmission constraints resolution mechanism;

- a revised SO balancing incentive, operating on a similar basis to the existing SO external costs incentive, except that costs relating to transmission constraints would be excluded (and dealt with under the transmission capacity buy-back incentive described above), and

- a SO internal costs incentive, based substantially upon the existing SO internal costs incentive arrangements.

1.13. These proposals were designed to achieve a number of objectives including providing better signals to NGC about future capacity requirements of its customers and providing financial rewards for responding quickly and efficiently to those signals. Furthermore, against the background of the merger between NGC and Lattice[7], it was intended that the proposals would help to ensure alignment between NGC's incentives and those applying to Lattice in relation to the operation of the gas transportation system. This is increasingly relevant given the increasing interactions between the gas and electricity markets.

1.14. In December 2002, Ofgem published its initial proposals for the NGC system operator incentives schemes that should apply from April 2003[8]. These initial proposals set out Ofgem's intention to implement a revised shallow SO

October 2002 Ofgem 67/02.

[7] Lattice Group plc is the owner of Transco plc, the GB gas network system operator.

[8] NGC system operator incentive schemes from April 2003, Initial proposals. Ofgem December 2002

incentive scheme for NGC for a further six month period (ie until 30 September 2003). It also explains Ofgem's intention to introduce a new licence obligation on NGC to use all reasonable endeavours to put in place a transmission access regime based around contractually firm, tradable entry and exit transmission capacity rights by October 2003. Assuming arrangements are developed by October 2003 that have enabled firm, tradable transmission capacity rights to be allocated for the period October 2003 to March 2006, Ofgem proposes that a SO transmission capacity buy-back incentive and a SO balancing incentive, both of which will last until 31 March 2006, should also be put in place from October 2003. Ofgem also indicates that it intends to introduce a SO transmission capacity release incentive as soon as possible after 1 October 2003 and by April 2004 at the latest.

1.15. Whilst there are interactions between the developments relating to NGC's deep SO incentive arrangements and BETTA, Ofgem/DTI are currently of the view that from a BETTA perspective, the interactions between the GB system operator and transmission owners that need to be defined (for example to ensure the delivery of the required transmission capacity) would be common under either a shallow or a deep incentive model (ie the existing incentives placed on NGC's SO activities or the revised proposals to apply from October 2003 set down in the December 2002 initial proposals document). For example, applying NGC's existing incentive arrangements under BETTA, the GB system operator's desire for a transmission owner to invest in additional transmission capacity might be borne of a wish to reduce its exposure to constraint costs. Equally, under the proposed "deep SO" regime the GB system operator's desire for a transmission owner to invest in additional transmission capacity to reduce constraint costs may be driven by a wish on the part of the GB system operator to reduce its capacity buy-back costs. Under either set of arrangements, it will be necessary to understand and develop the incentive arrangements and risk allocation mechanisms applying to both the GB system operator and transmission owners in order to ensure that an efficient quantity of transmission assets is made available for use[9]. It is recognised however, that as the development of BETTA

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[9] It should be noted that the form of the incentive arrangements to apply to transmission licensees under BETTA has yet to be decided. However, the current view of Ofgem/DTI is that the form of arrangements in

continues, it will be necessary to take into account a number of GB specific issues arising from the interaction between BETTA and the development of the deep SO incentive arrangements and any associated introduction of tradable transmission capacity rights. It is intended to consult further upon such matters in due course as part of the ongoing development of BETTA.

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force in England and Wales will be used as the basis for transmission incentives under BETTA, hence the discussion is confined to the existing arrangements and those proposed in the October 2002 consultation. paper.

2. Interface arrangements between transmission licensees

Nature of interface arrangements

2.1. The May 2002 report[10] proposed splitting the functions of the existing transmission licensees between those required to make transmission assets available for use (the transmission owner functions) and those required for system operation activities (the GB system operator functions).

Overview of interfaces

2.2. As outlined in the May 2002 report, it is anticipated that the GB system operator will form the single contractual point of contact for users in respect of connection[11] to and use of the GB transmission system. The GB system operator will rely on the transmission owners to provide the necessary transmission infrastructure and certain associated services in order for it to deliver its services of connection to and use of system to users. It is expected that the GB system operator will find it necessary to procure other services (eg balancing services) in order to meet its overall obligations under the GB BSC, GB CUSC, its transmission licence and elsewhere[12]. Figure 1.1 below depicts at a high level this service provision:

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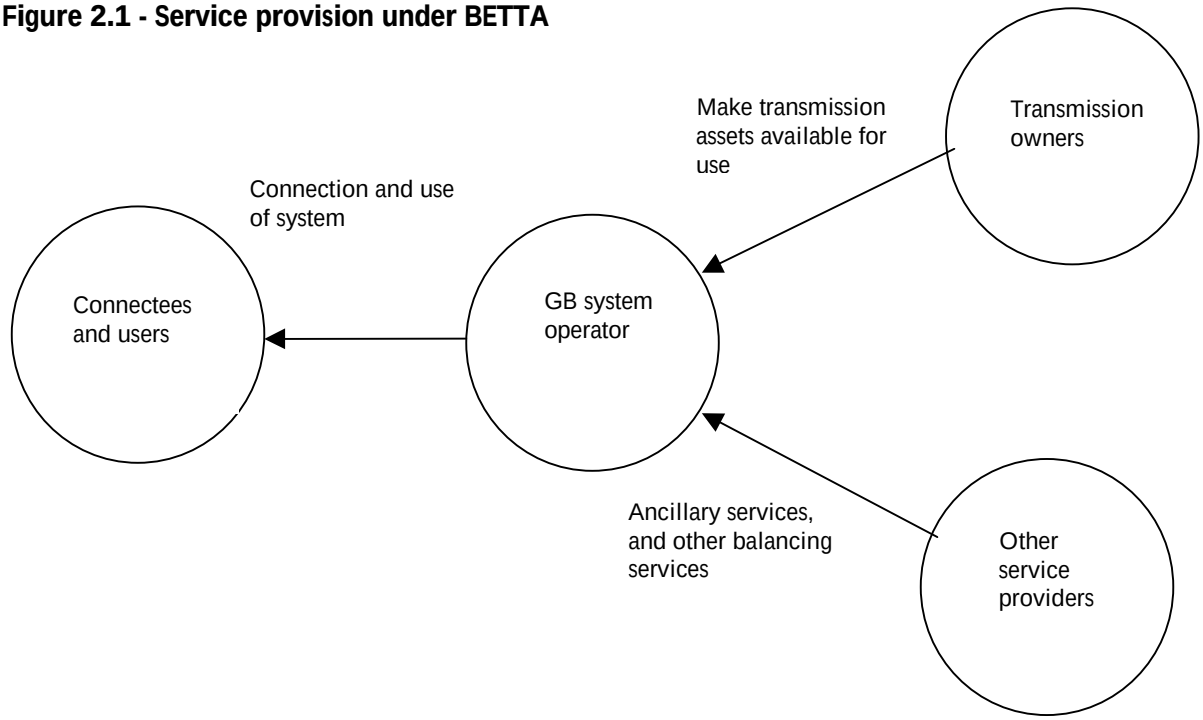
[10] 'The Development of British Electricity Trading and Transmission Arrangements (BETTA): Report on consultation and next steps' Ofgem/DTI, May 2002 Ofgem 38/02.

[11] Ofgem/DTI note that certain aspects of connection are contestable. It is explicitly intended that such contestability will be retained under BETTA and that the existing flexibility to introduce any new proposals for enhanced contestablity will be retained. The role of the GB system operator (and any reinforcing obligations on the transmission owners) in providing connection in this context should be regarded as applying to those elements of connection that are non-contestable, or in their role as a provider of last resort.

[12] It is recognised that the scope of the services that the GB system operator will provide is greater than simply the services of connection to and use of system to users under the CUSC, and that furthermore, the services provided by transmission owners to the GB system operator will require them to undertake, amongst other things, maintenance and construction of transmission assets. It is not intended that figure 1.1 provides an exhaustive description of the services provided between the entities shown above, instead, it is intended to give an overview of the proposed flow of service provision in relation to connection and use of system under the BETTA model.

Figure 2.1 - Service provision under BETTA



2.3. The principal role of the transmission owners may therefore be characterised as providing a number of services required by the GB system operator in order that the GB system operator can deliver a transmission services to users. The transmission owners' service would comprise of making transmission assets (wires services) available for use to the GB system operator. It is anticipated that the GB system operator will be the single purchaser of these wires services (essentially a monopsony), and that the existing transmission licensees will be allowed to undertake transmission owner activities only in relation to an area equivalent to their existing authorised areas[13]. This latter proposal means that, from the commencement of BETTA each transmission owner will be the sole provider of the wires services in those areas (ie they will initially have local monopolies in the provision of these services). Given this, Ofgem/DTI consider that the form of the relationship between the GB system operator and the transmission owners should be subject to regulatory oversight. In this way, it will be possible to constrain appropriately the way in which the GB system operator purchases wires services and the way in which the transmission owners

make these services available (including the prices that they can charge for the provision of such services).

2.4. In general, it is anticipated that the GB system operator will need to procure a variety of wires-related services from the transmission owners so that it is able to discharge its obligations under licence and its contractual obligations under a variety of industry documents including for example, the GB CUSC, the GB BSC and the GB Grid Code. It is also anticipated that the transmission owners themselves will, amongst other things, need information from the GB system operator so that they can discharge their licence and contractual obligations under BETTA. As part of the BETTA reforms, it is considered necessary to set down the arrangements applying in relation to the procurement of wires services from transmission owners by the GB system operator. As discussed in volume 2, it is anticipated that the activities of the GB system operator and transmission owners will both form part of a single revised prohibited activity of "transmission" (which will incorporate both system operation and transmission ownership) under BETTA, and that both types of entity will be required to hold transmission licences in order to carry out their activities. Finally, it is noted that it may also be necessary to set down arrangements between transmission owners under BETTA where they are required to interact in delivering the services to the GB system operator.

Legal framework for interface arrangements

2.5. In the interest of avoiding unnecessarily intrusive regulation, it is not proposed to set down conditions governing the entirety of the arrangements for the provision and procurement of wires services in the transmission licences of the parties involved. Instead, it is envisaged that some of these arrangements will be set down in a regulated code, which is contractually enforceable, and that some will be included in one or more contracts between the GB system operator and transmission owners. It is further anticipated that it may be necessary to set down arrangements governing certain relationships between the transmission owners themselves, and it is also intended that any such relationships will be

[13] See discussion on authorised areas in chapter 4 of Volume 2 of this consultation.

governed partly through the application of appropriate licence conditions (as discussed in volume 2) and partly through codified or contractual relations between the relevant parties.

2.6. Volume 2 has already included a discussion about the scope of matters that it is proposed should be covered in licence conditions for the GB system operator and the transmission owners. Essentially, Ofgem/DTI propose that if a matter is considered to be sufficiently significant that the Authority requires the ability to enforce it directly or so significant that were it to be changed, the licensee should have a chance to object to that change then an obligation in relation to the matter should be included in the relevant licence.

2.7. The existing arrangements applying in England and Wales in relation to the CUSC and to the BSC, in terms of the matters set out in the relevant licence conditions and those set out in the codes themselves and in arrangements required by those codes, give some indication as to the appropriate level of detail to be enforced through licence obligations. However Ofgem/DTI recognise that it is necessary to consider to what extent the structure adopted for the BSC and CUSC is applicable to the proposed arrangements between the GB system operator and the transmission owners (and possibly between transmission owners) under BETTA.

2.8. In respect of many details of the day-to-day operation of arrangements supporting the wholesale electricity market, provision is made for rights and obligations to be enforced through contracts and other agreements between relevant parties (albeit in some cases with recourse to regulatory enforcement if necessary).

2.9. Once BETTA has commenced, Ofgem/DTI envisage that in relation to certain matters, the Authority will have no direct regulatory interest in the subsequent development of the relationship between transmission licensees. For example, and subject to further consideration of the matter, it appears to Ofgem/DTI that whilst the Authority may have a regulatory interest in the broad allocation of duties between the GB system operator and transmission owners in relation to transmission outage planning, it is unlikely to have such a direct interest in the detailed timing of the information exchange between parties required to support

the process. Thus, whilst it will be important to ensure such timings have been agreed between the GB system operator and the transmission owners prior to commencing trading under BETTA, so long as the overall process operates satisfactorily, it may be acceptable to permit the GB system operator and transmission owners subsequently to agree mutually convenient changes to the timings without reference to the Authority.

2.10. Thus, certain matters that need to be in place prior to the commencement of BETTA, and which may be enforced through contractual relations between two or more parties, may have different governance structures affecting their enforcement and amendment after BETTA go-live. Specifically, Ofgem/DTI expect certain matters relating to the interactions between transmission licensees to be captured in a regulated code, the STC, and other matters to be captured in arrangements required by the STC.

Establishment of legal framework

2.11. As part of the introduction of BETTA, it will be necessary for the Secretary of State to be satisfied that appropriate arrangements are in place (including between transmission licensees) prior to taking any decision to commence trading under BETTA. It is therefore intended that use of the powers granted to the Secretary of State under the Electricity (Trading and Transmission) Bill (E(TT) Bill) will provide for mechanisms to ensure that such arrangements are in place. In some cases, this may require the Secretary of State to exercise powers to require licensees to comply with certain contractual obligations (ie through a regulated code and other arrangements required by the regulated code) required to support BETTA.

3. Design of legal framework for interface arrangements

Introduction

3.1. This chapter considers the principal characteristics of the existing regulated codes, and the other arrangements required by those codes, that are currently in effect in the wholesale electricity market. It also proposes criteria to be used in order to determine if matters should be included within the STC, in documents required by the STC or in other contractual arrangements, and then considers how matters should be split between these sets of arrangements.

Existing examples of codification

3.2. Ofgem/DTI recognise that contractual relationships can take several forms and it may be appropriate to apply the same approach to all the matters concerning transmission licensees under BETTA. For example, under existing arrangements in England and Wales, certain contractual matters are set down in regulated industry codes and some are in other arrangements required by those codes. Examples of regulated codes that may provide a model for arrangements under BETTA are the existing BSC and CUSC.

3.3. It should be noted that the contractual interfaces that it is envisaged will need to be established between transmission licensees under BETTA are expected to cover technical, as well as commercial, elements of the interactions between such licensees. Technical issues between transmission licensees and users of their networks are currently covered within their respective Grid Codes. However, Grid Codes are subject to slightly different governance arrangements to those which apply to the BSC and the CUSC.

3.4. One such difference is that Grid Codes do not have framework agreements. The obligation to comply with the Grid Code originates from the relevant connection and use of system agreements and /or licence conditions. This creates a more indirect legal relationship between the transmission licensee and network user than that involved in the BSC and CUSC. In addition, the amendment

procedures defined within Grid Codes are substantially less extensive than those defined within the CUSC and the BSC.

3.5. As noted above, it is likely that the relationships between transmission licensees under BETTA will contain both technical and commercial aspects. Insofar as the commercial aspects are concerned Ofgem/DTI are of the view that, it may be appropriate to ensure that some of the matters between transmission licensees under BETTA should be codified, under a code structured broadly along the lines of the CUSC and BSC and that these arrangements are contractually enforceable through a framework agreement. To the extent that the interface also includes matters of a more technical nature, Ofgem/DTI are of the view that it will be possible to deal with the bulk of such matters in arrangements required by a regulated code with governance arrangements tailored to suit the subject matter. In relation to these elements, it may be appropriate to consider mirroring arrangements set out in existing technical codes such as the Grid Codes.

3.6. The principal characteristics of the BSC and CUSC for consideration are that:

- the requirement to establish, and comply with the codes, the scope of the codes and the key procedures for the modification/amendment of the codes are set down in (in the case of the existing BSC and CUSC) the standard licence conditions for existing electricity transmission licensees

- the codes are given contractual force through framework agreements and hence the rights and obligations in them can be contractually enforced as well as being enforced through the licence obligation to comply with the codes

- certain other licensees (eg generators and suppliers) are required by licence to comply with the codes and to be a party to the relevant framework agreements

- the detailed procedure for modification/amendment is set down in the code itself, and relies upon parties to the code[14] to propose and to progress changes. Changes can only be made as a consequence of a direction by the Authority or with the consent of the Authority, and

- disputes are normally resolved, depending on the nature of the dispute, either by referral of the matter to the Authority for determination (to the extent that the dispute relates to a regulatory matter) or through the application of a defined resolution mechanism, eg arbitration.

Criteria for inclusion within the STC or arrangements required by the STC

3.7. In the context of the relationship between transmission licensees under BETTA, Ofgem/DTI propose that a matter should be covered in the STC or in arrangements required by the STC where it satisfies the criteria set out below.

3.8. It should be noted that these criteria are separate and distinct from the criteria set down in the May 2002 report which, it has been proposed, should be used to allocate transmission functions between the GB system operator and transmission owners. Ofgem/DTI consider that a matter should be covered in the STC or those arrangements required by the STC if it is such that:

- its amendment is likely to give rise to the need for consequential amendments to licence conditions and/or other matters that are to be set down in core industry documents (eg the GB CUSC, GB BSC, GB Grid Code, Distribution Code etc.)

- its amendment is likely to have a bearing on the rights and/or obligations afforded to licensees who are users of a transmission system or parties to other core industry codes (eg the GB BSC, the GB CUSC), and

- given the other matters contained either in the STC or the arrangements required by the STC, it would be consistent, practicable and convenient

[14] And, in some cases, certain bodies other than parties.

for it also to be covered either in the STC or the arrangements required by the STC.

Criteria for inclusion within the STC (Codification)

3.9. In addition to the criteria set out in paragraph 3.8, Ofgem DTI propose that a matter should be covered specifically within the STC itself (or codified) if:

- there is a regulatory interest in the manner in which the activity is carried out on an ongoing basis.
- given the other matters contained in the STC itself, it would be consistent, practicable and convenient for it also to be covered in the STC itself.

3.10. Ofgem/DTI's initial consideration of the contents/design of the new codified arrangements (ie the STC) is outlined in chapter 6. The proposed governance arrangements to apply to the STC are set down in chapter 4.

Arrangements required by the STC

3.11. Ofgem/DTI envisage that some matters that need to be in place to support the interface arrangements between transmission licensees under BETTA that do not satisfy the criteria set out in paragraph 3.9 will, instead of being set down in the STC, be set down in arrangements required by the STC. Generally speaking, matters that do not satisfy the criteria for codification, but which must be contractualised in order to support efficient operation of the interface, may be set down in documents of the following types:

- standard arrangements required by the STC, where the procedure by which such arrangements may change is set down in the regulated code. These would be arrangements that can be changed without the approval of the Authority, but where amendments to the procedure for varying such arrangements would require Authority approval. Typically, the procedures for change would include obligations to consult and take into

account the views of relevant parties. Ensuring that an appropriate procedure for change is in place provides assurance that a proper consultation process will be followed and that it will adequately take into account the views of parties with interests in the matter concerned prior to any decisions being taken to amend the arrangements. It should be noted that these types of documents tend to be publicly available, and

- separate contractual arrangements required by the STC. These may fall into two categories:
  - bespoke agreements between the parties concerned, and
  - contractual arrangements that must be in place for go-live and are therefore likely to be designated by the Secretary of State, but that can then be amended without Authority consent or direction and without the Authority governing the process by which such amendments are made.

3.12. It is possible therefore that a number of such issues may be enshrined in arrangements which are required by the STC. These may take the form of standard arrangements required by the STC ("STC subsidiary documents") (in the same way, for example that BSC Service Descriptions and BSC Procedures exist under the BSC) or in separate contractual arrangements required by the STC ("separate contractual arrangements") (in the same way, for example that they exist under the CUSC). The transmission licensees may also seek to facilitate their interactions by setting down arrangements within other contracts which are not required by the STC. Such arrangements would reside outside of the regulatory framework and are therefore not consulted upon within this volume.

3.13. Ofgem/DTI consider that, in certain instances, the governance arrangements applying on an ongoing basis to matters relating to the GB system operator / transmission owner interface should be best defined by the transmission licensees themselves, whom, it is anticipated will be required to ensure that the necessary arrangements are in place for commencement of BETTA.

3.14. For the purposes of this consultation, an initial list of the issues that Ofgem/DTI (with input from STEG in some areas) consider as appropriate for inclusion in the STC or its subsidiary documents and separate contractual arrangements is included in chapter 7, to help provide a picture of the arrangements that may need to be established for BETTA.

3.15. Certain matters listed in chapter 7 also appear in the discussions on design of the STC in Chapter 6 which proposes a high level structure and matters for inclusion within the STC. For example, it is suggested that arrangements applying in relation to transmission outage planning may appear both in the STC itself, and in its subsidiary documents and separate contractual arrangements. Broadly speaking, it is envisaged that the main processes in which there is a particular regulatory interest will be captured within the main body of the code, while the more detailed processes and specific responsibilities (which need to be set down so that the licensees can meet their obligations under their licences, the STC and other codes) can be set out in the STC subsidiary documents and in the separate contractual arrangements. The criteria outlined earlier in this chapter should inform the eventual content of the STC and of the arrangements required by the STC.

3.16. It is intended that further consultation on the exact matters to be codified (in the STC) and those which should be captured in the STC subsidiary documents and separate contractual arrangements will take place in subsequent consultation documents as set out in the timetable chapter in volume 1.

Views invited

3.17. Ofgem/DTI invite views on the proposed approach to defining the contractual interface between the GB system operator and transmission owners as outlined in this chapter. In particular, Ofgem/DTI invite views on the use of the BSC and CUSC as a broad guideline for development of STC governance.

4. Codified arrangements

Introduction

4.1. This chapter focuses upon the detail of the governance arrangements that it is proposed would apply to codified arrangements since it is clear that at least some of the matters arising which relate to the interface between transmission licensees will need to be codified.

The need for a new code

4.2. It is appropriate to consider whether or not any of the existing industry codes would constitute a suitable vehicle for the incorporation of interface arrangements between transmission licensees under BETTA. Whilst it is recognised that the contractual arrangements for some services purchased by the GB system operator from transmission owners will continue to be set down partially or wholly in the GB CUSC, GB BSC and GB Grid Code (for example relating to the acquisition of certain ancillary and balancing services purchased through the Balancing Mechanism), Ofgem/DTI's initial thinking is that it is appropriate to develop a separate code dedicated to the treatment of the interface arrangements between the GB system operator and transmission owners. There are a number of reasons for this:

- based on an initial view of the scope of the matters to be included (which are set out in chapter 6), the interface arrangements are likely to be of a detailed technical and commercial nature which will impact upon the transmission licensees alone. As a consequence, placing them in a document dedicated to such matters and with a suitably designed governance structure would better enable the document to be developed in a manner tailored to meet these separate and specific requirements

- one of the principal changes underpinning the BETTA reforms is the introduction of arrangements whereby access to the transmission system is provided by an entity which does not have affiliates with interests in

generation or supply[15]. To the extent that the arrangements between the GB system operator and transmission owners were set down in one of the existing industry codes (eg the GB CUSC or the GB BSC), then, in the absence of specific preventative steps, this may re-introduce some transmission owner influence over the provision of services from the GB system operator to those using the transmission system. This could arise as a result of matters of legitimate interest to transmission owners being set down in a document which also dealt with matters outside their legitimate interest. In order to avoid such complications, it is considered that the matters involving only the GB system operator and transmission owners should be separated from matters involving the GB system operator and users of the transmission system[16]

- separating the arrangements from those in the GB CUSC and the GB BSC should provide greater clarity on the respective roles of the GB system operator and transmission owners under BETTA, ie it will help to underpin the role of the GB system operator as the single provider of transmission services to users, and those of the transmission owners as service providers to the GB system operator, and

- whether the arrangements are incorporated into an existing document or into a new document does not, at first sight, appear to affect significantly the amount of work required to set down the new arrangements and their associated governance, hence, there may be no practical benefits, from a development perspective, from their inclusion into the GB BSC or GB CUSC. However, their inclusion may serve to detract from the development of these documents more generally for BETTA.

4.3. Hence, Ofgem/DTI proposes that the codified arrangements between the GB system operator and the transmission owners under BETTA should be set down

[15] Other than for the purpose of balancing the system under BETTA, the activity of generation or supply in GB, or of trading electricity in GB, or the carrying out of any other relevant activity which may conflict with the carrying out of the activities of the GB system operator in an independent and non-discriminatory manner, should not be undertaken by the party itself nor by any of its affiliates.
[16] Ofgem/DTI acknowledge that there may be instances where transmission owners will have a legitimate interest in proposed changes to the CUSC and BSC. This is discussed further in chapter 5.

in a new industry code, the STC. As set out in chapter 3, it is proposed that the structure of this new code should be based upon that which currently applies to the BSC and CUSC.

Parties to the STC

4.4. Volume 2 proposed that all transmission licensees will be subject to a licence obligation to adopt and comply with the STC, which will set out the terms under which transmission assets will be made available by the transmission owners to the GB system operator. It is also proposed that transmission licensees will be required by licence obligation to sign up to a STC framework agreement (similar to the existing BSC and CUSC framework agreements) which will create contractual obligations between the transmission licensees. Given the nature of the activities to be covered by the STC, it would seem inappropriate for parties other than transmission licensees to be bound by its provisions.

4.5. Ofgem/DTI therefore anticipate that a necessary and sufficient condition for accession to the STC (or its framework agreement) will be that a party has a transmission licence in GB. The issue of participation of other entities in the ongoing governance of the STC is discussed further below.

STC amendment process - general

4.6. Licence conditions which oblige the establishment and adoption of existing industry codes, such as the BSC or CUSC, make provision for the modification or amendment of those codes. This facilitates the ongoing development of arrangements in order to ensure that the code can evolve over time in accordance with changing market conditions and in the light of experience gained. A code change process should be sufficiently inclusive so that all relevant views will be sought as part of the amendment process (which the Authority can then have regard to when making its decision) but not so encumbered that changes will take an unnecessarily long time to progress.

4.7. It is worth noting that during the course of NGC's drafting of the CUSC and the subsequent consultations it became clear that it was desirable for the equivalent of "modifications" in the BSC and the Network Code to be known as "amendments" in the CUSC. This is because the term modification had a

different meaning associated with it during the life of the Master Connection Use of System Agreement (MCUSA), namely to represent a change to physical assets at a user's site. Given that it is envisaged that the STC will also be dealing with matters relating to transmission, the term "amendment" seems appropriate for describing changes to the STC.

Right to propose STC amendments

4.8. The purpose of the STC is to establish and codify contractual relationships between transmission licensees. As the only parties to the STC, it would appear appropriate to permit all transmission licensees to propose STC amendments. It is however, necessary to consider further whether third parties (who are not signatories to the STC framework agreement) should be permitted to raise STC amendments and whether third parties should participate directly in the progression and analysis of STC amendments.

4.9. Section F2.1 of the existing BSC identifies that the following parties can propose modifications to the BSC:

- parties to the BSC (other than BSCCo and BSC Clearer)
- the Gas and Electricity Consumers Council (energywatch)
- other bodies representative of interested third parties as may be designated by the Authority, and
- in certain circumstances, the BSC Panel itself.

4.10. Similarly, section 8.15.1 of the existing CUSC identifies that the following can propose amendments to the CUSC:

- parties to the CUSC
- the Gas and Electricity Consumers Council (energywatch)
- a BSC Party, and
- in certain circumstances the CUSC panel itself.

4.11. The reason that the scope of those who are permitted to raise BSC modifications or CUSC amendments extends outside the scope of the parties to the relevant framework agreement is that it is recognised that the arrangements within the documents could have a direct impact upon those who are not parties to it[17] or, in the case of energywatch, upon those whose interests they represent.

4.12. Whilst certain changes to the STC may impact on users to the extent that the effectiveness of the GB system operator – transmission owner interface may influence the ability of the transmission licencees (and the GB system operator in particular) to deliver a transmission service to users, at this stage in the development of the STC it is not clear to what extent changes to the everyday operational arrangements within the STC will affect third parties. As discussed below, Ofgem/DTI consider that a significant proportion of the content of the STC will deal with the services that the transmission owners are required to provide to the GB system operator in order that the GB system operator can subsequently provide (different) services to users. Moreover, Ofgem/DTI intend that the processes set down in the STC should be such that they are driven by the way in which services are to be provided to users of the transmission system, rather than the other way round. Hence the STC would be seen as a document that supports the arrangements in the GB BSC, GB CUSC, GB Grid Code and the discharge of licence obligations. On this basis, it is not clear that changes to the STC should impact directly upon third parties.

4.13. However, in making changes to the GB CUSC, GB BSC, GB Grid Code etc, it will be necessary to consider whether or not consequential changes are needed to the STC in order to support the change. Furthermore, if a change is proposed to the STC which would result in significant efficiency savings, and would also have a knock-on impact (however minimal) on the arrangements in the GB BSC, GB CUSC, etc., then it may well be in the overall interests of the industry for the change to be made. It is therefore possible that changes to the STC could drive changes to other industry documents.

[17] See for example, the discussion in para 4.70 onwards in 'NGC's Connection and Use of System Code and associated licence changes', an Ofgem/DTI consultation document, Ofgem 10/01 February 2001.

4.14. Due to the potential knock-on impact for users through codes such as the GB BSC and the GB CUSC, it is anticipated that the STC amendments process will need to allow adequate scope for the involvement of all interested parties (ie including those who are not necessarily parties to the STC itself). Furthermore, assuming that amendments to the STC will only be capable of being made following a direction by the Authority, it will be necessary for the Authority to take into account and consider the impact of any interacting changes to other industry documents (the GB BSC, GB CUSC, etc). The interaction between changes to industry codes is discussed further in chapter 5.

4.15. It is also necessary to ensure that the amendments process does not become encumbered with unnecessary or spurious amendment proposals. As a consequence, Ofgem/DTI believe that it is important that rights to raise STC amendments are only given to third parties to the extent that they have a legitimate interest in the arrangements.

4.16. Therefore, Ofgem/DTI's initial view is that the right to propose amendments to the STC is restricted to:

- transmission licensees
- such other person or persons with relevant interests (eg energywatch) as may be designated by the Authority, and
- parties with the right to propose change to user facing codes such as the GB BSC and the GB CUSC but only in the circumstances described in chapter 5.

Scope of those consulted on STC amendments

4.17. Irrespective of whether or not third parties are permitted to raise STC amendments, Ofgem/DTI believe that the consultation process on proposed STC amendments should solicit views from transmission users and that an analysis of these views together with an assessment of the impact of the proposed amendment on transmission users should be included in the final report on an STC amendment sent to the Authority, together with copies of the views

provided. The final report should have special regard for any impacts upon users based upon wide-ranging consultation with users.

STC panel and the need for a BSC Company (BSCCo) equivalent

4.18. Industry codes, such as the CUSC or the BSC, provide for the establishment of standing committees responsible for, (amongst other things), processing change to their provisions. These committees are referred to as panels and comprise representatives from parties to the relevant code and certain other organisations, typically Ofgem and energywatch. The duties of the panel are defined within the relevant code and, in some cases, in the licence of the body charged with establishing the panel.

4.19. Broadly, industry code panels perform, as a minimum, two roles. They:

- progress amendments, and
- provide a recommendation to the Authority on whether or not an amendment should be made.

STC panel

4.20. It is proposed that an amendment panel, equivalent to those outlined above in respect of the BSC and CUSC, should be established in order to progress amendments to the STC and to provide a recommendation to the Authority on whether or not an amendment to the STC should be made.

4.21. Given that it is envisaged that there will be relatively few STC parties, Ofgem/DTI consider that it should be possible to streamline the process for appointing the membership of such a body compared to those included in the CUSC or BSC. For example, Ofgem/DTI consider that the STC panel should be attended by each STC party and do not necessarily consider it necessary for voting to take place to elect transmission licensee panel members. Instead it would be possible for the transmission licensees to each decide upon their own members. Ofgem / DTI also consider that the STC panel constitution should include a seat for a representative of the Authority.

4.22. Such a streamlined approach has been adopted by the British Grid Systems Committee (BGSC), the body charged with co-ordinating change and other matters pertaining to the BGSA. The BGSC includes Ofgem as a non-voting member and performs a co-ordinating role, considering proposals developed by working groups such as the Joint Interconnection Planning Group (JIPG). The BGSC proceeds with a minimum of administrative burden and regulatory intervention. However, the extent to which such arrangements could effectively process amendments to the STC is open to question particularly in light of the natural tension that is likely to exist between the GB system operator and transmission owners.

4.23. In light of the proposal to allow non-STC parties with relevant interests to propose amendments, it may also be appropriate to make provision for third party representation within the STC panel processes. Ofgem/DTI consider that this could be addressed in one (or both) of the following ways:

- STC panel constitution to include a seat for a representative of interested parties who are not signatories to the STC framework agreement (non-STC parties). Such parties would include customers and users of the transmission network, and/or

- STC panel procedures to be drafted in such a way that the involvement of non-STC parties could be sought in relation to the development of specific amendment proposals, and, in the case of an amendment raised by a non-STC party, the STC panel would be required to invite that party to committee meetings or meetings of any sub-groups.

4.24. Ofgem seeks views on these options at the end of this chapter. The outcome of Ofgem/DTI deliberations, taking into account the views of respondents, will have a bearing on the name of the body responsible for progressing amendments to the STC, but for the remainder of this document it is referred to as the STC panel.

The need for a BSCCo equivalent (administration of the STC)

4.25. One area in which the modification/amendment processes of the existing BSC and CUSC differ is in relation to the activities carried out by BSCCo under the

BSC. Section C of the BSC identifies amongst other things that the role of BSCCo is to provide and procure facilities, resources and services required for the proper, effective and efficient implementation of the BSC, including a secretariat service for the BSC modification process. Under the CUSC, one of the roles of NGC is to carry out the equivalent of the activities ascribed to BSCCo under the BSC. Thus, NGC is both "owner and operator" of the CUSC amendments process[18] reflecting the fact that the CUSC is the main vehicle by which NGC recovers charges for connection and use of its system (ie its core business activities).

4.26. Insofar as the STC is concerned, Ofgem/DTI consider that it will, to a degree, administer itself given that there are likely to be only three or four signatory parties. To that extent, Ofgem/DTI do not currently propose the establishment of a body responsible for the effective and efficient implementation of the STC. However, the administration of matters relating to STC amendments and disputes is an issue that will need to be addressed.

4.27. Ofgem/DTI believe that, in order to avoid ambiguity as to who is responsible for administration of the STC amendment and dispute processes, it would be desirable for a single entity to be charged with taking forward this role. Ofgem/DTI propose that the GB system operator should be charged with providing the secretariat service to support the STC amendment and dispute processes. This does not, however, mean that Ofgem/DTI believe that the GB system operator should in any way be considered to be "leading" the amendments processes. Whilst the STC will be a document of significant importance to the GB system operator, as it will dictate how wires services are provided, it will be of equal importance to the transmission owners, and it is considered appropriate to ensure that they should play an integral role in progressing amendments.

[18] See for example para 4.6 onwards in in 'NGC's Connection and Use of System Code and associated licence changes', an Ofgem/DTI consultation document, Ofgem 10/01, February 2001.

System changes and recovery of associated costs

4.28. One further area in which the role of the GB system operator and the transmission owners under the STC may differ slightly from the arrangements under the CUSC and BSC is in the identification of system changes required to support amendments. Under the CUSC, NGC is primarily responsible for developing systems (with which users are required to interface) to support its commercial operation (eg billing systems etc). Under the BSC, BSCCo contracts with service providers to procure the necessary support for central services (and again BSC parties are required to interface with these central systems). Whilst the impact on users' / BSC parties' systems and processes are taken into account in considering CUSC amendments/BSC modifications, these systems and processes are generally outside the direct scope of those required to support the central processes set down in the CUSC/BSC themselves. Under the STC however, Ofgem/DTI envisage that, to the extent that systems and processes are in place to support its operation, such STC central systems and processes will be operated partly by the GB system operator and partly by the transmission owners. Hence in order to deliver STC amendments the central supporting systems and processes of both the GB system operator and transmission owners may need to change. Ofgem/DTI therefore propose that each transmission licensee will bear responsibility for effecting any changes to its own systems necessary to support an amendment to the STC.

4.29. Effecting change to supporting systems raises the issue of the costs to be borne by parties to the STC. Ofgem/DTI would expect certain costs arising from changes to STC support system (ie systems operated by STC parties to support STC arrangements) to be included within the allowable revenues of the transmission licensees. The arrangements that apply to NGC in respect of BSC and CUSC costs may offer guidance on how such arrangements could be progressed.

4.30. Currently, changes in costs resulting from certain changes to the BSC and CUSC can result in adjustments to the allowable revenues specified within NGC's transmission licence. However, these costs can be accounted for on both an ex-ante and an ex-post basis. As an example of the former, NGC's current SO incentives include an allowance for costs relating to certain changes to the BSC

and CUSC which had been proposed but had yet to receive approval from the Authority at the time the incentives were set. However, other changes to the BSC and the CUSC could constitute an "income adjustment event" as defined within NGC's transmission licence. Such events may prompt adjustments to be made to NGC's allowable revenues under its SO incentives.

4.31. Similarly, Ofgem/DTI would expect that any fundamental change to the STC arrangements would be likely to prompt a review of baseline costs for one or more of the transmission licensees. Any such review would need to take account of how any operational efficiency savings for one or more of the transmission licensees arising as a consequence of the changes would be treated. The issues of cashflow between transmission licensees and allowable revenues under BETTA will be considered in a forthcoming consultation on charging and price controls.

Stages of STC amendment process

4.32. Although there are differences between the processes applying to CUSC amendments and BSC modifications the same basic principles apply to each. In each case some form of definition and/or assessment of the proposed change takes place, views of interested parties are sought, and the process culminates in a report to the Authority. The final report to the Authority assesses the proposed amendment against the relevant objectives set out in NGC's transmission licence and typically makes preliminary recommendations in relation to the process and timescales involved with implementing the amendment. It is proposed that this same broad format should be adopted for the STC amendments process, although Ofgem/DTI recognise that the detail of the exact steps needs to be considered further (for example whether or not to have separate definition and assessment phases in relation to amendments).

Views invited

4.33. Ofgem/DTI invite views on the following matters:

- that transmission licensees should be required to, and only transmission licensees should be permitted, to become parties to the STC

- parties to the STC and such persons with relevant interests, in particular energywatch, as may be designated by the Authority should be permitted to propose amendments to the STC
- a STC amendments panel should be established
- the STC panel constitution should include seats for STC parties and for Ofgem to also attend panel meetings
- the appropriate vehicle for representation to the STC Panel by non-STC parties that have the right to propose amendments(ie membership of the panel and/or provision for involvement in certain circumstances)
- if the STC panel is to include a seat for a non-STC party representative(s), who should the non-STC party(ies) be and how appointed
- the GB system operator should be charged with providing the secretariat function of the STC amendment process
- a similar approach to transmission price control revenue adjustments as that employed in the BSC and CUSC should be used to fund STC amendments, and
- the STC amendment process should take a form similar to that in operation under the CUSC and BSC.

5. Interactions between codes

5.1. BETTA will include, in addition to the STC, versions of the BSC, the CUSC and the Grid Code, all of which will have GB-wide application. It is clearly possible that any change proposed to one of these codes may impact upon another. The design of the existing BSC, CUSC and Grid Code in England and Wales is such that in many areas, the interactions between them are limited, and changes to one document can be progressed in isolation. In addition, the governance arrangements for the change processes all have mechanisms to ensure that a wide constituency of interests and expertise is consulted so as to ensure that any potential interactions are identified and addressed.

5.2. For example, the BSC modification procedure requires, as a part of the assessment phase for a proposed modification, that a report is prepared that identifies, among other things, the impact of the proposal on the core industry documents[19]. Should an impact be identified it is normal for a proposed change to the affected document to be progressed in parallel with the BSC modification.

5.3. The position of the STC is different. Part of the STC's role is to enable the reinforcement of obligations placed on the GB system operator through other codes (predominantly the GB CUSC), where the GB system operator cannot fulfil the obligation without receiving the services provided by transmission owners. Thus, changes to such obligations (for example, in the GB CUSC) on the GB system operator have the potential to reflect directly on the arrangements in the STC and on the service provided by the transmission owners to the GB system operator.

5.4. It is important therefore to find an effective mechanism to ensure that transmission owners' can adequately represent their views when changes to codes have the potential to impact on the STC and on the use of their assets in providing services to the GB system operator.

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[19] Core industry documents are defined in the Transmission Licence, Standard Condition C1 as "document which (a) in the Secretary of State's opinion are central industry documents associated with the activities of the licensee and authorised electricity operators, the subject matter of which relates to or is connected with the BSC or the balancing and settlement arrangements and (b) have been so designated by the Secretary of

5.5. There are many ways in which such a mechanism, or group of mechanisms could be designed. For example, it has been suggested that it would be appropriate to give transmission owners rights to propose modifications or amendments to the GB BSC, GB CUSC and GB Grid Code or to provide them with a seat at the relevant panels.

5.6. Ofgem/DTI believe that it is important that the transmission owners are given a distinct and separate voice in cases where proposed changes to codes could impact upon the services that they provide (under the STC). However, Ofgem/DTI believe that it would not be appropriate to provide transmission owners with the ability to propose changes to codes outside their area of interest. Under BETTA, for example, it is intended that the GB CUSC will set down the services to be provided by the GB system operator to users, and will not deal directly with service provision by the transmission owners to the GB system operator.

5.7. Ofgem/DTI therefore propose that the following principles should be incorporated into the modification or amendment processes for each of the GB BSC, the GB CUSC, the GB Grid Code and the STC:

- transmission owners should have the right to propose change (ie to raise modifications and/or amendments) to the GB BSC, GB CUSC, and GB Grid Code but only in instances where that change is necessary to bring about consistency with the STC or with a proposed amendment to the STC

- parties with the right to propose change to the GB BSC, GB CUSC and the GB Grid Code should have the right to propose amendment to the STC but only in instances where that change is deemed necessary to bring about consistency with the GB BSC, GB CUSC, or GB Grid Code or a proposed change to the GB BSC, GB CUSC, or GB Grid Code

- in making final recommendations to the Authority upon proposed changes to each Code, the relevant change administration body (eg

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State."

BSCCo for the BSC) should recognise any associated change proposals to other codes. In the case of the STC, the relevant body would be the STC panel, and

- where a change is raised in relation to the GB CUSC, GB BSC or GB Grid Code which would require a consequential amendment to the STC, the respective panel would seek the views of transmission owners on the amendment/modification to the GB CUSC, GB BSC or GB Grid Code and include those views in its report to the Authority.

5.8. Ofgem/DTI consider that this approach would safeguard the right of parties to industry codes to influence and initiate change to other codes so as to protect the integrity of the arrangements which govern their own activities, whilst limiting the opportunity for the proposal of extraneous change.

Views Invited

5.9. Ofgem/DTI invite views on the proposal outlined above for changes to the modification or amendment processes in the GB BSC, GB CUSC, GB Grid Code and for the inclusion of the proposals on how the interaction between the STC and other industry codes should be managed.

6. Design of the STC

Introduction

6.1. This chapter covers the matters that Ofgem/DTI initially consider appropriate for inclusion specifically within the main body of the STC. Its contents capture the initial views arising from discussions in STEG. The role of STEG is discussed further in volume 4.

Overview of STC structure

6.2. Currently, Ofgem/DTI envisage that the STC would contain five sections identified below. Ofgem/DTI propose this as a "first cut" intended to stimulate input from respondents and this is in no way a pre-judgement of the eventual structure of the STC. At this stage Ofgem/DTI are more concerned with providing an outline of the intended content and purpose of the STC to stimulate full consultation on its scope and governance.

Section A – General enabling provisions

6.3. Ofgem/DTI anticipate that this section will cover legal "boiler-plate" conditions, financial arrangements and governance, perhaps including the following:

A1) Parties and participation

A2) The panel

A3) Administration of the STC

A4) Amendment procedures

A5) Process for determining payments / revenue allocation between licensees

A6) Credit cover, invoicing and payment

A7) Communications

A8) Reporting

A9) Revenue allocation disputes, and

A10) Other general matters.

Section B – Operational interface between STC parties

6.4. This section will cover the arrangements for the real-time operation of the transmission system and for operational planning (ie arrangements applying in relation to transmission outage planning). These issues have been discussed at some length with existing transmission licensees at STEG and the results of these discussions and Ofgem/DTI's initial views on these matters are laid out in volume 4 of this paper. It is intended that the outcome of these discussions, and subsequent consultations will be included in this section of the STC.

6.5. Ofgem/DTI consider that the high-level processes associated with carrying out certain operational activities should be codified. There are two reasons for this. First, it is anticipated that significant changes to the responsibilities of the GB system operator and transmission owners in relation to these processes may require a reallocation of transmission related revenues and may impact on transmission licence conditions. Second, Ofgem/DTI believe that in many cases, changes to the allocation of responsibility for carrying out certain activities may give rise to competition concerns. For example, if the scope of the activities carried out by the transmission owners in certain areas was increased, this might provide an inappropriate opportunity for a transmission owner with generation and supply affiliates to favour its affiliated interests to the detriment of other generators and suppliers.

6.6. In developing the STC, further consideration will need to be given to the level of detail on such issues that needs to be set down in the STC.

Section C – Investment planning and new connections

6.7. This section will cover procedures to ensure co-ordination of investment planning and arrangements for new connections. As with the contents of section B, these issues have been discussed in STEG and are covered in detail in volume

4 of this consultation. Again, the exact level of detail on these issues that needs to be included in the STC is a matter for further consideration.

Section D – Conditions necessary to secure consistency with user-facing codes

6.8. As described in chapter 4, Ofgem/DTI expect that the STC will, to some degree, support the other codes, such as the GB CUSC and the GB BSC, and will be a means to facilitate their effective operation. Volume 2 proposes that obligations to implement and comply with the user facing codes such as the GB CUSC, GB BSC and GB Grid Code will rest with the GB system operator under BETTA. However, volume 2 also proposes a licence obligation on the transmission owners to take all the actions required under the STC to ensure that the GB system operator is able to fulfil its obligations under these codes.

6.9. The provisions in this section will be drafted with the intention of supporting the fulfilment of these obligations, that is, in providing the necessary reinforcing arrangements, not covered elsewhere in the STC, to enable the GB system operator to fulfil its obligations under the other codes. This section may, subject to further consideration, also place obligations on transmission owners to enter into certain contracts with users. These issues are discussed in detail in volume 4 of this consultation.

6.10. Ofgem/DTI believe that it is appropriate that such issues are reinforced in the STC, primarily because it is anticipated that there will be an interaction between the operation of the provisions of the STC and the provisions of the various user-facing codes. Many of these reinforcing provisions will fall naturally into certain sections of the STC. For instance, the GB CUSC connection provisions will drive the activities that the transmission owners are required to carry out in relation to future new connection offers (so that the information they provide is consistent with the provisions of the GB CUSC) and it is likely these activities will be defined within Section C of the STC.

6.11. However, there may be provisions within user facing codes which need to be backed off within the STC but may not necessarily be appropriate for inclusion

in sections A to C and section E. It is anticipated that such provisions will be captured within section D of the STC.

Section E – Rights and obligations between transmission owners

6.12. Section E will cover the establishment of any rights and obligations between transmission owners (rather than simply between the GB system operator and transmission owners), to the extent that this proves necessary.

6.13. At this preliminary stage the main, but not the only[20], area of interaction between transmission owners envisaged as potentially being required to be codified is in the investment planning process. To the extent that such transmission owner interactions need to be set down in relation to investment planning, Ofgem/DTI's view is that it would probably be appropriate for them to be codified. This is because, amongst other things, changes to the processes associated with transmission planning may have an impact upon the allowable revenues of the various transmission licensees (and consequently may have an impact upon their licences). Furthermore, Ofgem/DTI believe that overall, the processes associated with transmission investment planning may have a significant impact on competition in the wholesale market, and as such it is appropriate that they should be codified.

6.14. Whether or not it is appropriate to codify any other arrangements that it may be necessary to put in place between transmission owners will depend upon the nature of the requirements, and it is proposed that these should be considered on a case-by-case basis as and when the need for them to be in place to support BETTA is identified.

6.15. The following paragraphs examine in further detail the possible contents of each of the sections A-E.

[20] This section may also cover, amongst other things, issues relating to ownership and access to assets around the boundaries of transmission owners' areas, such as are currently covered in the BGSA.

Possible content of section A – General enabling provisions

6.16. The outcome of consultation on matters such as appropriate signatory parties, amendments and STC administration will be covered in sections A1 to A4 of the STC.

6.17. Sections A5 and A6 will set down the processes for determining the payments to be made between the transmission licensees. Ofgem/DTI anticipate that this will principally include arrangements for payments to be made by the GB system operator to the transmission owners, but provision may also need to be made for payments to be made by transmission owners to the GB system operator, and possibly, for payments between transmission owners.

6.18. In developing these arrangements, consideration will be given to determining who should have the obligation to determine the individual charges to be paid. Exactly what processes and systems are needed to support these arrangements will, to an extent, depend upon the form of regulation applied to the GB system operator and to the transmission owners. Ofgem/DTI anticipate that the amount that the GB system operator and transmission owners are permitted to recover under the STC charges would be linked back explicitly to the revenue restrictions in their respective licences.

6.19. Sections A5 and A6 will also set out appropriate billing timescales and other arrangements. Sections A5 and A6 will also contain any arrangements for security cover between the GB system operator and transmission owners, the treatment of bad debt and interest on over and under payment[21]. These arrangements will need to take account of the general flow of funds and the defined billing cycle.

6.20. It will be necessary for a number of communications issues to be covered in the STC. Ofgem/DTI envisage that, in a similar fashion to the BSC, it will be necessary to cover the general arrangements applying to communications in A7

[21] A consultation on issues relating to credit cover and the transmission licensees is intended for Spring 2003.

of the STC. Ofgem/DTI's initial view is that it will be necessary to provide arrangements for:

- general communications under the STC
- invoicing and payment
- system operation
- investment planning and new connections, and
- other / miscellaneous communications.

6.21. There will be a number of reporting requirements between licensees in relation to different activities. The detail and frequency of such reporting requires examination and will be specified in section A8.

6.22. Section A9 will set down the arrangements applying in relation to disputes under the STC, as outlined in chapter 4, with different entities acting as final arbiter of different types of dispute.

6.23. Ofgem/DTI consider the "other general matters" in Section 10 would cover commencement and term, default, confidentiality, audit, liability and non-charging related dispute resolution. These are fairly standard elements of most industry codes and agreements. The detail of these sections will be developed as drafting of the STC progresses.

Possible content of section B – Operational interface between STC parties

6.24. Given that operational interface issues are discussed in volume 4, they are not discussed further in this chapter. Furthermore, the appropriate level of detail on these matters that should be contained in the STC as opposed to the subsidiary documents and separate contractual arrangements is currently uncertain. However, Ofgem/DTI's initial view of the types of matters that may be covered includes:

Operational issues

- definition of the high-level operational responsibilities and a review of the general nature of the role of the GB system operator and the transmission owners
- determination of detailed responsibilities for carrying out switching of the live transmission system
- arrangements for remote and on-site switching
- ownership and maintenance of associated equipment
- procedures for carrying out switching
- operation outside specified asset parameters
- determination of detailed responsibilities for carrying out safety switching
- returning assets to service and commissioning new assets
- development of control room procedures (based on existing internal procedures)
- fault management – actions to be taken in the event of a fault on a transmission asset. Communications requirements, rights and responsibilities
- emergency action – setting out various scenarios
- black start/significant de-energisation of transmission system/islanded systems/civil emergency
- the pre-emptive actions required if an emergency is likely
- action in the event that an asset failure is imminent
- failure of monitoring equipment/associated computing systems telemetry

- form of communications (ie from whom to whom, by what medium, content) in each of the above circumstances
- condition monitoring of equipment and/or identification of maintenance requirements
- maintenance responsibilities
- information exchanges
- transmission owner-driven maintenance requirements
- GB system operator-driven maintenance requirements
- arrangements for dealing with "under-performing" assets
- arrangements for decommissioning assets

Operational planning issues

- definition of the transmission system to be made available to the GB system operator in various operational planning timescales. The GB system operator will need this for planning balancing services etc.
- arrangements for developing an initial transmission outage plan
- arrangements for agreement of the outage plan for GB
- preparation of plan, rules by which the baseline plan is constructed (eg information on generation outages)
- initial consolidation of the plan by the GB system operator (including demand and generation assumptions) and the rules governing rescheduling of outages by the GB system operator
- publication of the baseline outage plan (when, what, who sees it, confidentiality issues)
- transmission owner involvement in production of the baseline outage plan

- the formal process for discussion of the baseline plan with distribution network operators where transmission outages require support from distribution networks
- arrangements for the changes to baseline outage plan in response to requests from transmission owners and GB system operator requests
- the formal process for consideration (responsibilities, timescales, formalisation of requests, obligation to amend in certain circumstances)
- the financial consequences of request
- the arrangements for ex-ante indication of the flexibility of the outage plan and associated costs
- provisions applying in different timescales (eg emergency outage requests, emergency return to service requests)
- arrangements applying in the case of an event requiring the delay of a planned outage
- arrangements for returning assets to service and commissioning new assets
- development of commissioning plan
- testing (of both asset and associated telecoms/monitoring equipment), and
- arrangements for decommissioning assets.

Possible content of Section C – Investment planning and new connections

6.25. It is not proposed to discuss in great detail issues relating to investment planning and new connections in this section of the consultation paper as these are covered in volume 4. Again, however, at a high level, the possible scope of this section may include:

New Connections

- general roles of the GB system operator and transmission owners
- details of the process to be used in responding to a new connection application
- information exchanges
- timescales for technical studies to be conducted
- arrangements for approval of connection design and/or associated infrastructure requirements
- dispute provisions
- provision of connections works (interaction with contractual arrangements in place between the GB system operator and connectee)
- implications of competition in provision / construction of connection assets
- carrying out non-contestable works – monitoring, GB system operator role, timescales, delays, liabilities etc
- commissioning and decommissioning (see above)
- reporting
- dispute/issue management (ie disputes/issues raised by the connectee)
- arrangements to address impact of new connections on neighbouring transmission networks

Investment planning

- definition of "system" to be made available to the GB system operator by the transmission owner over the longer-term ie definition of what the transmission owner has to deliver in investment planning timescales

- details of the planning process to be followed
- arrangements for developing initial transmission investment plans
- initial preparation of plan
- consolidation/production of GB-wide plan (GB system operator to co-ordinate)
- publication of baseline investment plan (who gets to see it and when)
- interaction with distribution network operators
- timescales for development of plan/interaction with development of baseline outage plan
- publication of plan
- involvement of GB system operator in developing plan/formal establishment of a planning forum
- interaction with balancing services contracts incorporation of GB system operator
- changes to baseline investment plan, and
- issues associated with failure to deliver baseline requirements.

Possible content of section D – Conditions necessary to support GB system operator obligations under user-facing codes

6.26. Ofgem/DTI anticipate that the STC will need to reinforce certain obligations on transmission owners which are placed on the GB system operator in a variety of industry codes on transmission owners. Ofgem/DTI suggest that this subsection would include these reinforcing provisions to the extent that such issues have not already been covered in earlier sections. Below is a very preliminary

analysis of areas of the GB BSC, GB CUSC and GB Grid Code[22] in which reinforcing obligations may be required within the STC. The proposals are based on the proposals for the GB versions of these documents that have been set out in earlier Ofgem/DTI consultation papers[23]. It is not intended to be exhaustive and respondents are invited to submit their views at the end of this chapter.

The GB CUSC

6.27. Of the three main "user-facing" codes relating to electricity transmission services, the GB CUSC would appear to the one whose efficient operation is most reliant upon the GB system operator/transmission owner interface and therefore the STC. The following paragraphs consider the type of GB CUSC provisions that will need to be reinforced within the STC.

6.28. Under BETTA, a user will only be able to gain access to the electricity transmission system via the GB CUSC. In order to provide this service to the user, the GB system operator will have to procure provision of asset services from the transmission owner and it is intended that this will be the subject of STC reinforcement provisions.

6.29. The GB CUSC is likely to oblige the GB system operator to grant users a connection to the transmission network and to ensure that the connection remains energised and operational subject to some exceptions. These obligations are likely to involve the commissioning and operation of assets, and the GB system operator will require information about those assets. The GB system operator will rely on transmission owner services, most probably provided in accordance with the STC, in order to meet these obligations. The

[22] It is anticipated that a number of other industry documents will also need to be reviewed in order to determine whether the GB system operator requires services from the transmission owners in order that it may discharge its obligations under such documents. As such, it is not considered that the BSC, CUSC and Grid Code represent an exhaustive list of those documents which may give rise to the requirements for reinforcement provisions.

[23] 'The Grid Code under BETTA', Ofgem/DTI consultation on the development of a grid code to apply under BETTA, December 2002; 'The Connection & Use of System Code under BETTA', Ofgem/DTI Consultation on a CUSC to apply throughout GB, December 2002; 'The Balancing and Settlement Code under BETTA', Ofgem/DTI Consultation on a BSC to apply throughout GB, December 2002 Ofgem 80/02.

STC will also be the contractual vehicle for the transmission owner to recover baseline revenues through the GB system operator for these services.

6.30. There may be various technical and capacity parameters set out in the provisions of the GB CUSC. In the event of the user breaching these provisions, the GB system operator may well have the right to withdraw part or all of the connection / use of system services. However, the intended purpose of such provisions is to prevent the user from jeopardising the integrity of the transmission assets and thus would appear to be for the benefit of the transmission owner. It would therefore seem appropriate for the STC to contain arrangements that reflect the GB CUSC technical and capacity parameters, which if breached by the user would allow the transmission owner to withdraw the service of provision of transmission assets to the GB system operator. Such an action may take the form of de-energisation or disconnection.

The GB BSC

6.31. The extent of the arrangements within the GB BSC that will need to be backed off in the STC would appear to be very limited in comparison with those identified within the GB CUSC. The following gives a general outline of the provisions which may need to be covered.

6.32. The GB BSC may require the GB system operator to de-energise plant under certain conditions of default. The STC will be required to support this process, probably by requiring the transmission owner to undertake necessary works subject to certain safety conditions.

6.33. The transmission owner may require metered data for operational purposes. Some of this data may be collected via the process or systems defined in the GB BSC or GB Grid Code. The STC will require the pass through of necessary data from the GB system operator to the transmission owner.

The GB Grid Code

6.34. The following gives an overview of the provisions within the GB Grid Code which may need to be backed off within the STC.

6.35. The Planning Code will provide the GB system operator with information from users concerning proposed developments and data which may be used by the GB system operator and transmission owners to plan and develop the transmission system and to produce the Seven Year Statement. At least some of this information will be required by the transmission owners in order to support the efficient fulfilment of its licence obligations and the STC may be the appropriate vehicle for its transfer.

6.36. In a similar manner to the Planning Code, the STC could oblige transmission owners to provide information to the GB system operator on the transmission network.

6.37. The Planning Code specifies the Standards to be used in the planning and development of the transmission system. It is uncertain yet what planning standards will apply under BETTA, and who will bear the responsibility for review and for effecting modifications where appropriate to those standards. This will be further considered when developing the detailed licence obligations on transmission licensees and in developing the detailed process in relation to system planning in the STC (and the subsidiary documents and separate contractual arrangements), and as such will be the subject of future consultation planned for January 2003. The extent of any STC reinforcement provisions in this area will be determined at least in part by the outcomes of this consultation.

6.38. The Operating Codes cover operational liaison, testing, monitoring, and maintenance. Many of these processes will require interaction between the GB system operator and transmission owners and as such will need to be reinforced within the STC.

6.39. Much of the Balancing Code is concerned with pre/post gate closure processes and frequency control, and such activities may become the responsibility of the GB system operator alone. However, one section of Balancing Code 2 covers emergency instructions to network operators and is therefore likely to be reinforced within the STC if not covered in section B.

6.40. The Connection Conditions specify the minimum technical, design and operational criteria to be complied with by users (including all embedded power

stations over 50MW). It is anticipated that it may be necessary to restate these criteria in the STC.

Views Invited

6.41. As discussed at the beginning of this chapter, the matters considered for inclusion in the STC as set out above are not intended to be exhaustive. Ofgem/DTI invite views on the initial proposals for the structure and content of the STC as outlined in this chapter. Views are also invited on other matters that respondents consider should be included in the STC.

7. STC subsidiary documents and separate contractual arrangements

7.1. It is expected that the legislative arrangements to support the introduction of BETTA will give the Secretary of State powers that can be used to ensure that the complete set of necessary contractual arrangements are in place between transmission licensees prior to the commencement of trading under BETTA[24]. However, as described in chapter 2, whilst on an ongoing basis there will be matters that will properly continue to be subject to regulatory oversight (and therefore codified within the STC) Ofgem/DTI anticipate that there will be others matters for which such a level of oversight on an on-going basis is deemed unnecessary. Some of these other matters may be captured in the STC subsidiary documents. Similar to documents required by the BSC and CUSC, Ofgem/DTI propose that the STC should set out the process that must be followed to change STC subsidiary documents and separate contractual arrangements but that subject to following these processes, changes may be made without a decision by the Authority. Ofgem/DTI will seek the advice of the existing licensees (including in their capacity as transmission owners under BETTA) and the GB system operator (once the party that it is anticipated will carry out this role is identified) in order to progress further detail of these matters and will consult upon these matters as laid out in the timetable chapter in volume 1.

7.2. Assisted by discussions at STEG, Ofgem/DTI have already made some initial progress in identifying the possible scope of the ongoing arrangements that will need to be in place between the GB system operator and transmission owners to support the operation of BETTA. Ofgem/DTI recognise that this scope will need to be refined over time as further detail of the role of the GB system operator and the transmission owners is developed. Further consideration of the detailed allocation of functions and responsibilities to the GB system operator and transmission owners will, for example, dictate the nature of the interfaces needed. The GB system operator and transmission owners will be requested to

[24] Whilst it is anticipated that this will include transitional arrangements, the focus of consideration in this paper is the arrangements between the GB system operator and transmission owners that will need to be in

progress development of these matters as part of the further development of the BETTA project.

7.3. This chapter sets down an initial list of processes and procedures that it is envisaged will need to be in place prior to the commencement of trading under BETTA. Whether or not it will be necessary, ultimately, to include these processes in the STC, or in the STC subsidiary documents and separate contractual arrangements, remains to be further considered.

7.4. The following processes have been identified during discussions at STEG:

i) Processes for carrying out switching of (live) transmission circuits, (to the extent that the circuit cannot be switched remotely –and/or the transmission owner has a role in developing detailed switching plans or carries out switching) including:

- arrangements for withdrawing and returning assets to service
- control room procedures
- arrangements for dealing with "under performing" assets, and
- arrangements for voltage control on a national and local level.

ii) Processes for de-energisation and/or isolation and return to service of circuits and associated arrangements for hand-over of control.

iii) Processes for safety switching – the interface to handle temporary removal of assets and then returning them to service, including:

- processes for maintaining operational safety/efficiency, and
- processes for preserving network security/plant integrity.

iv) Arrangements for co-ordination of outages/switching/security issues etc/ with connectees (ie distribution companies, users etc).

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v) Processes for alarm handling, including:

- alarm interpretation
- alarm categorisation
- notification of alarm action (from transmission owner to GB system operator), and
- alarm action.

vi) Processes for fault reporting and subsequently dealing with faults. This may include a requirement for specifying standby arrangements and service levels.

vii) Processes for outage scheduling, including:

- an outage definition process – preparation of plan/iteration with GB system operator
- an outage placement process
- processes for identifying customer requirements/cost implications
- provisions to apply in all timescales (emergency outage requests, emergency return to service requests)
- arrangements to apply in the event that outages are delayed, and
- processes for decommissioning assets.

viii) Emergency procedures (eg action in the event of storms, treatment of isolated assets, black start procedures).

ix) Investment planning and design processes.

x) Processes for handling new connections:

- arrangements for approval of connection design and/or infrastructure requirements
- timescales/studies to be conducted
- arrangements for implementing connections assets (monitoring/timescales/delays/liabilities), and
- processes for commissioning assets.

xi) Processes for commissioning new equipment (including specification of information required in relation to the equipment).

xii) Processes for equipment decommissioning (including specification of information required in relation to the equipment).

xiii) Arrangements for nomenclature of assets.

xiv) Safety procedures to be used in dealings between GB system operator and transmission owners.

xv) Specification of control equipment/telemetry/protection etc which each transmission owner will deliver with its transmission assets.

xvi) Functional specification of the information to be exchanged between the GB system operator and transmission owner, including a statement of where the data needs to be provided and to what degree of reliability.

xvii) Asset register for operational purposes, including associated list of asset ratings/other technical parameters for purposes of operation (eg asset reliability).

xviii) Information flows required for transmission charging purposes (ie for GB system operator to charge connectees/users) plus information flows for transmission owner to charge GB system operator.

xix) Post event information provision from GB system operator to transmission owners relating to usage/operation of assets.

xx) Data exchange requirements.

xxi) Training and authorisations requirements for GB system operator and transmission owner staff/representatives. Arrangements for system(s) testing.

Views Invited

7.5. Ofgem/DTI seek views from respondents on the processes to be covered in the STC, or the STC subsidiary documents and separate contractual arrangements, and any proposed additions or deletions.

7.6. Ofgem/DTI also seek views on any of the issues discussed in this volume and in particular those relating to the proposed codified and contractual relationships between the GB system operator and transmission owners, and the proposed form of that contractual relationship.