Small Generator Issues under BETTA

An Ofgem/DTI Conclusions Document

May 2004 96/04

Summary

This document sets out Ofgem/DTI's conclusions on small generator issues under the proposed British Electricity Transmission and Trading Arrangements ("BETTA"). The package of measures set out have been developed in the light of responses to Ofgem/DTI's November 2003 consultation paper and feedback received at Ofgem/DTI's seminar on small generator issues held in Glasgow in February 2004.

BETTA requires changes to a suite of industry codes, documents and licenses. The impact on small generators of BETTA depends on how these changes interact. The changes will be most noticeable for generators in Scotland, given that the proposed GB documents and codes are based on those that prevail in England and Wales currently. Ofgem/DTI therefore concluded that a separate strand of consultation based on the theme of small generators was appropriate. The focus of this consultation strand was the position of small, transmission connected generators in Scotland.

A key factor in the considerations has been the different statutory definition of transmission in Scotland, where the transmission system includes the network of lines at 132kV (which form part of the distribution network in England and Wales), and the consequence that small generators in Scotland can be connected directly to the transmission system. The objective of these measures is to ensure that small transmission connected generators are not unduly disadvantaged in the GB market.

The key elements of the package of measures are:

- confirmation of Ofgem/DTI proposal set out in the November consultation document to provide small transmission connected generators in Scotland with a discount against transmission use of system charges for an interim period of three years. The discount is expected to be in the range of £2.50 to £3.50 per kilowatt, and

- an amendment to the GB Connection and Use of System Code ("CUSC") to relieve, in certain circumstances, the obligation on small transmission connected generators to be a party to the GB Balancing and Settlement Code ("BSC").

The document also sets out Ofgem/DTI's views in respect of the operation of the GB Grid Code and small generators, and more detailed elements of how smaller generators might trade within a GB market.

Implementation of these measures within the legal framework under BETTA will require further consultation on the detailed legal text. This consultation will be progressed in June 2004.

Table of contents

1. Rationale

1.1. The objective of the British Electricity Trading and Transmission Arrangements (BETTA) reforms is to implement new trading and transmission arrangements that are designed to promote the creation of a single competitive wholesale electricity trading market and to introduce a single set of arrangements for access to and use of any transmission system in Great Britain (GB).

1.2. The rationale for BETTA was set out initially in an Ofgem consultation paper of December 2001[1] ("the December 2001 consultation") and reaffirmed in a joint Ofgem/DTI report of May 2002[2] ("the May 2002 report"). DTI has also published a Regulatory Impact Assessment (RIA) which assesses the likely costs and benefits of the BETTA reforms. The RIA was published in draft in May 2002 for consultation, and published in final form with the draft Electricity (Trading and Transmission) Bill (the 'E(TT) Bill') in January 2003.

1.3. The December 2001 consultation set out Ofgem's view that it was appropriate and timely to implement market based wholesale trading arrangements in Scotland. It was proposed that the most appropriate way of achieving this was through the creation of GB balancing and settlement arrangements, a common GB transmission charging regime, common terms throughout GB for connection to and use of the transmission system, removing the current commercial arrangements surrounding use of the Scotland-England interconnector assets and incorporating those assets into the GB transmission system and the creation of a GB system operator responsible, at a minimum, for balancing the GB transmission system.

1.4. It was also proposed that the basis for consultation on the arrangements to apply across GB should be the arrangements in place in England and Wales. Consequently, consultation has been progressed by Ofgem/DTI on the detail of GB versions of the Connection and Use of System Code (CUSC)[3], Balancing and

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[1] 'The Development of British Electricity Trading and Transmission Arrangements (BETTA): A consultation paper', Ofgem, December 2001: Ofgem #74/01.
[2] 'The Development of British Electricity Trading and Transmission Arrangements (BETTA): Report on consultation and next steps' Ofgem/DTI, May 2002: Ofgem #38/02.
[3] Connection & Use of System Code under BETTA: Volumes 1 and 2 – Ofgem/DTI, June 03 #46/03 and #45/03

Settlement Code (BSC)[4] and Grid Code[5]. In addition, in December 2003 Ofgem/DTI published its conclusions document on the framework for transmission charging under BETTA. Subsequently, the National Grid Company ("NGC") has started a process of consultation on GB transmission charging methodologies, which will culminate in a set of proposals being brought forward for approval by Ofgem.

BETTA and small generators

1.5. In designing the package of individual consultation documents for the BETTA project, Ofgem/DTI decided that the theme of small generators warranted a separate consultation. While issues affecting small generators arise in the individual codes upon which Ofgem/DTI was already consulting, it was considered that the overall consultation process would be enhanced if the particular issues affecting small generators across the range of industry codes and documents were pulled together for consideration as a whole. This process was designed to complement the consultation processes in respect of the individual codes and documents.

1.6. Consequently, in November 2003 Ofgem/DTI published a consultation document on small generators issues under BETTA[6]. The specific issues consulted upon were drawn from a range of sources, including issues raised by the Trade and Industry Committee (and the parties who gave evidence to the Committee) through its scrutiny of the draft E(TT) Bill, and through responses to related BETTA consultation documents.

1.7. The purpose of this document is to present Ofgem/DTI's conclusions following that process of consultation.

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[4] The Balancing and Settlement Code under BETTA: An Ofgem/DTI conclusions and consultation on the legal text of a GB BSC – Volumes 1 and 2 – Ofgem/DTI, June 03 #40/03 and #39/03

[5] The Grid Code under BETTA – Ofgem/DTI conclusions and consultation on the text of a GB Grid Code and consultation on change co-ordination between the STC and user-facing industry codes: Volume 1 – Ofgem/DTI, Sept 03 #111/03

[6] Small Generator Issues under BETTA: An Ofgem/DTI Consultation Document – Ofgem/DTI, November 2003 #145/03

2. Timetable

2.1. The target date for BETTA Go-Live is April 2005[7]. The implementation of BETTA requires primary legislation, and the Government has brought forward the necessary legislation as part of the Energy Bill. The Energy Bill had its Third Reading in the House of Lords on 20 April 2004.

2.2. The specific consultation on small generators issues will, along with the other strands of consultation under BETTA, feed in to the delivery of the GB documents and industry codes underpinning BETTA.

2.3. The specific proposals in this document impact on the Connection and Use of System Code ("CUSC"), transmission licences and the charging methodologies of the GB system operator, and in order to implement its conclusions Ofgem/DTI will consult on associated draft legal text in respect of the CUSC and transmission licensees. The impact on the charging methodologies of the GB system operator is anticipated to be consequential to changes to transmission licenses and as such will not require separate consultation by Ofgem/DTI. This will be progressed during spring and summer 2004 and is expected to take the form of 'mini-consultations'.

[7] Subject to Royal Assent to the Energy Bill in July 2004

3. Background

3.1. This chapter provides a summary of the BETTA reforms and the process of consultation to date. It also provides some background material on the legislation required to implement BETTA, and on wider issues of Government energy policy.

BETTA

The proposals

3.2. In the December 2001 consultation Ofgem set out its model of reform to enable all consumers in GB to benefit from more competitive wholesale markets. The set of proposed reforms outlined in that paper was termed BETTA.

3.3. The four principal elements of BETTA are:

- the introduction of a common set of trading, balancing and settlement arrangements across GB
- the introduction of a common set of transmission pricing arrangements and a common set of contractual provisions for access to and use of the transmission system across GB
- the introduction of independent balancing arrangements, through the creation of a single GB system operator that is independent from generation or supply interests, and
- removal of the current commercial arrangements surrounding use of the Scotland-England interconnector and incorporation of those assets into the GB transmission system.

3.4. A key theme running through these proposals is the notion of non-discriminatory access to the same market for all generators and suppliers across GB.

3.5. In the May 2002 report Ofgem/DTI published conclusions in the light of responses to the issues raised in the December 2001 consultation and provided additional information on key matters associated with progressing BETTA. In

that paper Ofgem/DTI concluded that the development of effective competition across GB is contingent upon the creation of a GB system operator that is independent[8] of generation and supply interests and that it is appropriate to allocate certain transmission related functions (including, at a minimum, GB system balancing) to the GB system operator. Ofgem/DTI also concluded that it is appropriate to introduce GB balancing and settlement rules and a single set of contractual and charging arrangements across GB for access to and use of the transmission system.

3.6. Following the May 2002 consultation paper, Ofgem/DTI has consulted further on the detail of the BETTA proposals. This process is ongoing. The key areas of detailed consultation are as follows:

- Transmission licenses under BETTA
- Generation, Supply and Distribution licences under BETTA
- BETTA and the Settlement Agreement for Scotland (SAS)
- a GB BSC
- a GB CUSC
- a GB Grid Code
- an SO-TO Code
- price controls and incentives
- recovery of costs under BETTA, and
- GB transmission charging arrangements.

3.7. Further information on each of these topics, including copies of published documents and associated contact names and details, can be found on Ofgem's website.

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[8] Other than for balancing services under BETTA, the party should not undertake itself, nor should it have affiliates who will, be undertaking the activities of generation or supply in GB, or be trading GB electricity, or be carrying out any other relevant activity which may conflict with the party carrying out the activities of the GB system operator in an independent and non-discriminatory manner.

3.8. Of particular relevance to this paper have been the proposals developed on the GB Codes and in relation to the development of GB charging arrangements.

3.9. On 30 September 2003, Ofgem/DTI published a second consultation document on the Grid Code under BETTA[9]. This paper set out Ofgem/DTI conclusions and consultation of the text of the GB Grid Code and consultation on change co-ordination between the STC and user-facing industry codes. The September 2003 paper noted that a detailed comparison of the two existing Grid Codes, with the identification of further regional differences between the two existing codes that may need to exist at BETTA Go-Live would be considered in a series of mini-drafting consultations. A number of these have subsequently been published on Operating Codes, Planning Code and the Data Registration Code.

3.10. Ofgem/DTI published third consultation documents on the BSC and the CUSC on 28 November 2003[10] and 16 December 2003[11] respectively. These set out conclusions and second consultations on draft legal text for Codes to apply across GB. Conclusions and draft legal text on these Codes was published on 30th April 2004[12][13].

3.11. In August 2003 Ofgem/DTI published a consultation document in two parts on the issue of transmission charging and the GB wholesale electricity market[14]. Part 1 concerned proposed changes to the regulatory framework to implement GB transmission charging arrangements. In Part 2 DTI sought views on the issue of whether licence obligations on the GB system operator should be augmented to provide lower charges for renewable generators. In December 2003 Ofgem/DTI published conclusions on Part 1 of the August paper[15] and shortly after NGC as initial GB system operator initiated a consultation on GB transmission charging

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[9] The Grid Code under BETTA, Ofgem/DTI conclusions and consultation on the text of a GB Grid Code and consultation on change co-ordination between the STC and user-facing industry codes' – Ofgem, September 2003 #111/03

[10] The Balancing and Settlement Code under BETA, Ofgem/DTI Conclusions and second consultation on the legal text of a GB BSC – Ofgem, November 2003 #152/03

[11] The Connection and Use of System Code under BETTA – Ofgem/DTI conclusions and second consultation on the legal text of the CUSC to apply throughout GB' – Ofgem, December 2003 #167/03

[12] **The Balancing and Settlement Code (BSC) under BETTA: Ofgem/DTI Conclusions and publication of near final legal text of the GB BSC - Volumes 1 and 2 – Ofgem, April #92/04a/b**

[13] **The Connection and Use of System Code (CUSC) under BETTA: Ofgem/DTI Conclusions and publication of near final legal text of the GB CUSC - Volumes 1 and 2 – Ofgem, April #91/04a/b**

[14] Transmission Charging and the GB Wholesale Electricity Market – Ofgem/DTI, August 2003 #86/03

[15] Transmission Charging and the GB Wholesale Electricity Market – Ofgem/DTI conclusions on Part 1 – Ofgem/DTI, December 2003 #159/03

methodologies[16]. NGC has subsequently published a further consultation on this subject[17]. NGC's consultation will culminate with the submission of proposals to Ofgem for approval around October 2004.

Legislation for BETTA

3.12. The implementation of the BETTA reforms as set out in the December 2001 and May 2002 consultation papers requires primary legislation. The necessary legislation was published in draft form in January 2003, and was the subject of pre-legislative scrutiny by the Trade and Industry Committee. The Committee published its findings[18] on 8 April 2003. The Government subsequent response to the report can be found on the Committee's website[19].

3.13. Subsequently, the Government has brought forward the legislation required to implement BETTA as part of the Energy Bill. The Energy Bill received its Second Reading in the House of Lords on 11 December 2003, and having completed its passage through the Lords, it is anticipated that it will receive its Second Reading in the House of Commons shortly.

The Energy White Paper

3.14. In February 2003 the Government published its Energy White Paper, "Our energy future – creating a low carbon economy" (the "White Paper")[20]. The White Paper set out four goals for the Government's energy policy:

- to put ourselves on a path to cut carbon dioxide emissions by some 60% by about 2050, with real progress by 2020
- to maintain the reliability of energy supplies
- to promote competitive markets in the UK and beyond, and

[16] GB Transmission Charging: Initial Thought Consultation – NGC, December 2003
[17] GB Transmission Charging: Initial Methodology Consultation – NGC, April 2004
[18] 'The British Electricity Trading and Transmission Arrangements: Pre-legislative scrutiny of the draft Electricity (Trading and Transmission) Bill. Fifth report of session 2002-03. Volumes 1 and 2 – www.parliament.uk/parliamentary_committees/trade_and_industry.cfm
[19] www.parliament.uk/parliamentary_committees/trade_and_industry.cfm
[20] Energy White Paper, Our energy future –creating a low carbon economy, Presented to Parliament by the Secretary of State for Trade and Industry by Command of Her Majesty, February 2003

- to ensure that every home is adequately and affordably heated.

3.15. The White Paper stressed the importance of changes to the pattern of generation over coming years to contribute towards the creation of a low carbon economy, including an aspiration to see 20% of electricity supplied from renewable sources by 2020. The White Paper also stated that liberalised and competitive markets will continue to be a cornerstone of energy policy in providing a framework for these shifts in the pattern of generation to occur efficiently. The White Paper recognised that additional measures, such as the Renewables Obligation and carbon emissions trading schemes, are necessary where market mechanisms fail to place a sufficient value on outcomes that contribute to longer term reductions in carbon emissions.

3.16. The White Paper also noted that it is vital for the trading arrangements in England and Wales not to discriminate unduly against small generators. As the intention is to use the England and Wales arrangements as the basis for the development of the GB arrangements, an implication of this statement not explicit in the White Paper itself, is that trading and transmission arrangements under BETTA must not discriminate unduly against small generators. While the White Paper recognised that some changes have been made to the trading rules in England and Wales to this end, it was noted that this work must continue.

4. Legal Framework and licence exemptions

Ofgem/DTI proposals

4.1. The November document described key elements of the legal framework in respect of smaller generators, and sought views on a proposal to amend the secondary legislation that determines the criteria under which generators are not required to hold a generation licence in order to remove prevailing differences in the rules applying to generators in Scotland relative to other parts of GB.

4.2. For generators connected after 30 September 2000 the licence exemption regime is identical. A generator is licence exempt if they:

- do not export more than 10MW from any one generating station or do not export more than 50MW (where the declared net capacity is less than 100MW)
- only generate electricity at a generating station which is on an offshore installation and who only supply such electricity to premises which are part of an offshore installation, or
- apply successfully for an individual licence exemption to the Secretary of State.

4.3. However, for generators connected to the system in England and Wales on 30 September 2000, there are two additional criteria under which an individual generator could be licence exempt. If they:

- only provide electrical power from generating stations which are not normally capable of exporting more than 100MW, or
- were not required to submit those stations to central despatch (so long as their maximum generation capacity has not been increased since 30 September 2000).

4.4. Ofgem/DTI sought views on a proposal to harmonise the arrangements by extending to GB the two criteria above currently limited to England and Wales only.

Respondents' views

4.5. Five respondents commented on the issue of harmonising the framework for licence exemption. Of those four supported the proposal.

4.6. One respondent, while supporting the harmonisation of licence exemption provisions, did not agree with the restrictions placed on small generators in England and Wales which if replicated GB wide would mean that licence exempt generators with multiple conditions in their exemption would have these conditions locked in.

4.7. Two respondents considered that Ofgem/ DTI should clarify in its subsequent proposals paper that it is not the size of the generator at the site but the Licence Exempt Status which determines the licence exemption framework. One of the respondents noted that a Party capable of generating more than 100MW can be licence exempt if the power station is part of a site that also contains demand to net off the generation. The other respondent argued that this point is relevant in the context of whether a distribution connected generator pays transmission charges.

4.8. One respondent felt that the wording of the proposal in paragraph 4.31 of the paper was misleading and that the actual meaning could be derived from paragraph 4.29. The respondent welcomed further clarification.

Ofgem/DTI conclusions

4.9. Ofgem/DTI are aware that the licence exemption regime is one factor of many that can influence the obligations placed on generators within the overall regulatory and contractual framework. Obligations are also contained in industry codes and contracts. The Scottish Grid Code, for example, places obligations on generators, which are given contractual effect through connection agreements. To illustrate, in the north of Scotland all generators in excess of 5MW (i.e. only 10% of the size below which a generation licence is not required) are considered to be 'large' in terms of their potential effect on the network, and face the same obligations under the Code as other large generators.

4.10. In terms of the specific issue of whether the licence threshold for automatic licence exemption should be harmonised, Ofgem/DTI are acutely aware that

such a step must not in any way reduce the extent to which system integrity can be maintained. If the current arrangements, including the prevailing extent of licence exemptions, reflect what is needed to maintain system integrity, then it would not be prudent to amend the rules for licence exemptions unless alternative measures were in place to ensure that appropriate obligations can be specified in a robust, contractually enforceable manner. BETTA, per se, must not result in a reduction in the ability of the system operator to do its job.

4.11. Ofgem/DTI consider that such a robust, contractually enforceable framework can be delivered under BETTA, and this issue is discussed in more detail in chapter 5. While is it Ofgem/DTI's expectation that such arrangements will be delivered under BETTA, the decision as to whether to amend the rules for licence exemption will be deferred until this has been demonstrated to be the case.

4.12. Ofgem/DTI note that one element of the licence exemption regime today is for individual exemptions to be subject to conditions, following consultation by DTI. This will not change under BETTA.

5. Transmission issues

5.1. This chapter summarises responses and sets out Ofgem/DTI's views in respect of the transmission-related issues discussed in the November document upon which respondents commented. The issues discussed were:

- definition of transmission, and the status of the 132kV transmission network in Scotland
- transmission charging and small, transmission-connected generators, and
- CUSC and Grid Code obligations.

5.2. These issues are discussed in turn below.

Definition of transmission

5.3. The November document restated Ofgem/DTI's view that BETTA should not trigger a change to the definition of the transmission system in GB. This view was set out by Ofgem and DTI during the process of pre-legislative scrutiny of the draft E(TT) Bill, including in the Government's response to the final report of the Committee. A number of parties had suggested that the definition of transmission should be harmonised across GB. All these parties suggested that harmonisation should be achieved by reclassifying 132kV lines in Scotland to be distribution, rather than by reclassifying 132kV lines in England and Wales to be transmission.

5.4. On balance Ofgem/DTI considered that the arguments in favour of no change were significantly stronger than the arguments in favour of reclassifying 132kV lines as distribution in Scotland. The reasons were as follows:

- the existing distinction drawn in the licensing regime between transmission and distribution is not arbitrary. It reflects the physical purpose of different sets of wires. The primary purpose of the 132kV network in Scotland is the bulk transfer of electricity. It is clear, even through the most cursory inspection of the network in Scotland, that a system excluding 132kV lines would not be sufficient to transfer bulk

flows of energy around Scotland, i.e. to perform the function of transmission

- while it could be argued that under certain circumstances some 132kV wires in England and Wales facilitate the bulk transfer of energy (i.e. perform the function of transmission), and that conversely some 132kV wires in Scotland perform the function of local distribution, Ofgem/DTI are of the view that a (principally) voltage-based definition of transmission continues to be robust when considered in aggregate, i.e. that the existing boundary of 132kV and above in Scotland and above 132kV in England and Wales should continue to be used to differentiate between transmission and distribution. Although this assessment might change over time, as a consequence of growth in embedded generation, currently there is an order of magnitude difference between Scotland and England and Wales in the proportion of 132kV network that primarily serves the purpose of transmission

- the range of licensees activities, and whether the current allocation of activities between distribution and transmission in Scotland (and potentially in other parts of GB), is a much wider issue than BETTA, and by implication outside the scope of the legislative powers being sought to implement BETTA

- the objective of BETTA is to deliver open and non-discriminatory access to a GB transmission system as a means of promoting wholesale competition. A reclassification of 132kV in Scotland would, by reducing the scope of the transmission system, reduce certain benefits arising from BETTA for a significant proportion of current and, importantly, future generators and 132kV connected demand customers. Such parties would not benefit from the ability to contract for connection and use of system with a system operator independent of generation or supply interests, and

- a reclassification of the 132kV network in Scotland as distribution would change the pattern of cost recovery. Distribution costs are recovered from local users, while transmission costs under BETTA will be recovered from GB transmission users. Significant investment in the

132kV network in Scotland to accommodate new generation in Scotland would, if 132kV were reclassified as distribution in Scotland, be paid for by distribution users in Scotland. This would appear inequitable, given that the primary purpose of the investment would be to facilitate electricity flows from Scotland to other areas of GB.

Respondents' views

5.5. Fourteen respondents commented on this issue. Of those, six respondents supported the proposal that 132kV circuits should continue to be treated as transmission in Scotland. Four of these respondents argued that the definition of transmission assets should continue to reflect the usage to which the assets are put and not the voltage at which those assets are energised. Two respondents noted that where there are issues of potential discrimination stemming from the different definitions of transmission then these should be addressed through changes to industry codes.

5.6. Five respondents argued specifically for the reclassification of 132kV circuits as distribution. Of those a number of respondents disputed the point made in the November paper that the 132kV circuits serve a different purpose in Scotland from the purpose they serve in England and Wales. Four respondents pointed out that although there are parts of the 132kV network in England and Wales which currently perform a transmission function, in the interests of consistency all 132kV is classed as distribution. One respondent argued that the treatment of 132kV as transmission in Scotland was not due to a difference in functionality but rather owed more to the legal definitions of transmission stemming from the ownership of the network.

5.7. At the same time four respondents noted that the key differences between transmission and distribution are becoming increasingly blurred as a result of the growth of distributed generation and the separation of the energy balancing function into a separate system operation function. These respondents considered that the arrangements should respond to ongoing developments of the network and that the market structure should thus not be based on a distinction between transmission and distribution that could rapidly disappear.

5.8. Several respondents believed that the decision to retain 132kV as transmission circuits in Scotland would disadvantage generators connected at that voltage in Scotland. Five of these respondents argued that the result would be to deny generators connected at that voltage the trading options open to generators connected at the same voltage in England and Wales, in particular, the ability to confer embedded benefits. Those respondents also argued that embedded benefits should be made available to all 132kV connected generation in Scotland.

5.9. Four respondents considered that the key issue was not the classification of 132kV in Scotland but that small generators directly connected at 132kV should be treated in a non-discriminatory way. Another respondent believed that consistent treatment of small generation is important as it will make costs more predictable and thus easier for such schemes to secure project finance. In turn this will encourage renewable generation to come forward.

5.10. One respondent, while recognising that there are good reasons why the GB system operator should operate the 132kV system in Scotland, suggested that the 132kV system could not be treated as distribution and the GB system operator operate as an agent for the distribution licensee.

Ofgem/DTI conclusions

5.11. Ofgem/DTI remain of the view that the statutory definition of transmission should not be amended pursuant to the implementation of GB transmission and trading arrangements under BETTA. The key reasons why Ofgem/DTI remain of this view, in the light of respondents' views, are:

- the 132kV network, which forms a substantial part of the transmission system in Scotland, is required to transfer bulk energy from generation to demand in Scotland. A transmission network which excludes 132kV lines in Scotland would be demonstrably incapable of transferring bulk energy to the extent required in Scotland

- in contrast, because of the interconnected 275/400kV transmission network in England and Wales, overall the 132kV networks in England and Wales performs a fundamentally different role than that of the 132kV

networks in Scotland which are to facilitate bulk transfer from generation to centres of demand, and

- the definition of transmission in statute is not, as some respondents would appear to contend, arbitrary. The separate licensing of transmission and distribution in Scotland was considered as recently as 2000 under the implementation of the Utilities Act.

5.12. In respect of other comments raised by respondents, Ofgem/DTI agrees that the separate definition of transmission and distribution should not *per se* unduly influence the commercial position of market participants. The measures set out later in this chapter in respect of transmission charging are an explicit recognition of this legitimate concern. However, Ofgem/DTI considers the reclassification of the 132kV network in Scotland as distribution to be a disproportionate response to these concerns. The proposal by one respondent to classify 132kV in Scotland as distribution but continue to actively manage the network as a transmission system through an agency agreement illustrates, in Ofgem/DTI's view, the arbitrary nature of such a reclassification.

5.13. In response to parties who contended that trading options should be equalised between 132kV generators in England and Wales and in Scotland, similar arguments apply. It is, in Ofgem/DTI's view, disproportionate to enable transmission connected generators to realise embedded benefits.

5.14. Ofgem/DTI recognises that growth in distributed generation raises a number of complex issues concerning the future operation of distribution networks. Significant work has been undertaken recently by Ofgem in this regard. However, this issue is separate from BETTA. Further, the proposed solution to reclassify 132kV in Scotland as distribution would appear premature and fails to recognise the complexity of the underlying issues.

Charging and 132kV transmission-connected generation

Ofgem/DTI proposals

5.15. The November document presented the results of analysis by Ofgem on the differences in charging treatment between transmission and distribution connected generators in England and Wales, and the implications of extrapolating this model across GB.

5.16. In the light of this analysis Ofgem/DTI set out a view that a simple extrapolation across GB of the charging arrangements applying currently in England and Wales might unduly disadvantage small transmission-connected generators in Scotland relative to generators connected at 132kV in England and Wales. Specifically, Ofgem/DTI highlighted a particular element of the interaction between distribution and transmission charges for small generators which appeared to confer an undue benefit to being distribution connected compared to being transmission connected. This benefit was related to the residual (non-locational) element of NGC's use of system charges.

5.17. Ofgem/DTI expressed a view that charging arrangements which did not recognise this discrepancy might not be as effective at promoting competition, and thereby protecting the interests of customers, as charging arrangements that recognised and made allowance for the discrepancy.

5.18. Ofgem/DTI identified two strands of work that it considered to be appropriate in addressing this issue. First, in the longer term work was required to address the wider question of the interactions between transmission and distribution charging arrangements, in order to ensure more coherent and consistent signals for investment. Secondly, in recognition that the work to deliver an enduring solution was not attainable in timescales associated with a BETTA Go-Live date of 1 April 2005, a focused and proportionate interim measure should be devised to address the issue in the short term. Ofgem/DTI considered that the implementation of such an interim measure would be preferable, in terms of promoting effective competition and reducing discrimination, to doing nothing until such time that an enduring solution could be implemented.

5.19. Ofgem/DTI proposed that, as an interim measure, small generators connected at 132kV in Scotland (i.e. generators who would not be liable for transmission use of system charges if they were connected to a distribution network) should be exempt from the residual (i.e. non-locational) element of NGC's generator use of system charge. In Ofgem/DTI's view this represented a robust estimate of the differences in charges between transmission and distribution-connected small generators that would otherwise prevail, regardless of the actual marginal costs imposed by the presence of the generator on the respective networks.

5.20. Ofgem/DTI sought views on:

- whether it was appropriate to treat small transmission-connected generators differently from other transmission-connected generators
- whether the proposed interim measure was proportionate and consistent with the need to ensure non-discrimination, and
- how such a proposal might be implemented.

Respondents' views

Differential treatment of transmission connected generators

5.21. Of the seven parties who commented specifically on the scope to treat 132kV connected generation in Scotland differently from other transmission connected generation, five expressed the view that this would not be discriminatory. One of those respondents noted that the 400kV and 275kV circuits are wholly different from 132kV circuits in terms of plant specification, design parameters and protection schemes and consequently impose substantially different costs on the system. They therefore argued that a lower charge for generation connected at 132kV would not be discriminatory.

5.22. At that same time the majority of parties agreed that 132kV connected generation should pay something towards use of the transmission network. It was noted that if generators impose costs on the transmission system then they should pay transmission use of system charges. Only two respondents questioned the scope for the removal of transmission charges from connected generation less than 100MW.

5.23. One respondent agreed with Ofgem/DTI in noting that small generators should not be exempted from paying balancing service use of system charges and transmission losses.

Locational charging arrangements

5.24. Nine respondents commented on the wider issue of the locational charging arrangements from which the residual rebate is calculated. Four of these agreed with Ofgem/DTI that locational or cost-reflective charges are appropriate for users of the transmission system. One respondent argued that an effective locational charging policy would result in more optimally placed generation, reduced system losses and hence reduced CO_2 emissions. Another respondent suggested that one solution to address the disparity between distribution and transmission charges would be the application of a consistent ICRP methodology for both.

5.25. The other five respondents questioned the appropriateness of the current locational charging methodology in England and Wales for extension to GB. Four of those respondents argued that the resulting charges from that model would be too high and would stifle generation in the north of Scotland. Those parties argued that locational signals should be removed and uniform ('postage stamp') charging applied or if a locational element forms part of the charges that part of that charge should be capped to be no greater than the postage stamp element. Further, these respondents argued that those charges should not create "mirage incentives" that disappear when generators respond to them by locating at a particular point in the network, and as a consequence changing the locational charges in the following year for generators at that point on the network.

5.26. Another respondent while agreeing that legitimate cost-reflective differences between parties should be reflected in the charges they face questioned whether locational use of system charges would meet this criterion. The respondent argued that the justification for marginal cost type charging in a monopoly transmission network with large sunk costs is open to question as transmission charges should also be stable to ensure the equitable allocation of costs between users that enables generators to take appropriate investment decisions.

Ofgem/DTI proposed interim measure

5.27. Twenty-seven respondents commented on Ofgem/DTI's suggested interim measure of introducing a rebate for small 132kV connected generators in Scotland from the residual charge. Fourteen of those respondents expressed some support for a rebate in the interim although many of those respondents regard the approach as second best to an approach based on capping transmission charges.

5.28. Of those who expressed support for the rebate eleven argued that the level of the rebate required has been understated and that it does not fully capture the differences in costs for 132kV connected generators in Scotland relative to England and Wales. Five parties suggested using a Net Present Value calculation and, based on embedded benefits in England and Wales and figures from NGC's indicative transmission charging paper published in December 2003, presented a range of values for the rebate of between £6/kW and £44/kW. A further three parties argued that the basis of the £2/kW residual saving for small generators calculated by Ofgem/DTI should be further illustrated.

5.29. The respondents who disagreed with the rebate can broadly be separated into two camps. One camp believed a rebate would discriminate against other users of the transmission system. The other camp believed that such an approach would further disadvantage small 132kV connected generators.

5.30. Three respondents argued that the proposal would be discriminatory to other users of the transmission system. Two of those respondents argued that it was not clear why a generator's liability to pay transmission charges should differ by size and considered that if transmission charges are likely to be too high in Scotland then the whole charging basis should be reviewed. The other respondent noted that renewables already receive support through the ROC mechanism and that further subsidies could distort the market.

5.31. The main issue among the other respondents who disagreed with the exemption was that the rebate, by being linked to locational charges, would be subject to change and thus create increased regulatory risk and financial uncertainty for small generators. Six respondents argued that the appropriate approach to remove uncertainty would be to cap generation charges at a fixed level. Three

respondents argued that charges should be capped at the level of deep connection charges levied on 132kV distribution connected generation in England and Wales.

5.32. Two respondents noted that locational elements of the charge would only net-off exactly between the generator and the supplier if the boundaries of the generation and demand charging zones contain exactly the same nodes. Both argued that this is unlikely to be the case under GB arrangements.

5.33. One respondent questioned the 100MW capacity limit of eligibility for the rebate. The respondent noted that there are other potential capacity limit solutions, driven by, for example licence exemption criteria.

5.34. Another respondent pointed out that the position of the Grid Supply Point (GSP) in Scotland at the 132/33kV interface means that the load on the GSP in Scotland is much lower than on the GSP in England and Wales. Where embedded generation exceeds demand and the GSP exports to the transmission network the generator will pay use of system charges on both the distribution and transmission systems.

Implementation Issues

5.35. Thirteen respondents commented on the implementation issues associated with introducing a rebate for small 132kV connected generators.

5.36. Five respondents commented on the issue of whether the creation of a rebate should be enshrined in the GB system operator's licence obligations. Four of those respondents supported the proposal as being appropriate. Two respondents noted that it was the right solution as the issue is broader than NGC's charging methodologies. Another noted that it should be specified in the transmission licence so long as it did not conflict with other transmission licence objectives. One respondent noted that further work was required to demonstrate how the consultation proposals could be implemented in a manner consistent with the objectives of the charging statement and to clarify the impact of the rebate on the calculation of GB transmission network use of system charges.

5.37. In relation to when the discount should be removed, four respondents argued that the interim arrangements should not remain in place for too long and the appropriate timescale would be when longer term arrangements provide a similar environment for all, signalled by moves to shallow charging for distribution connected generators in England and Wales and/or when upgrades to the Scottish transmission system have occurred.

5.38. On the issue of the requirement for a termination date for the existing arrangements two respondents argued that they did not see the necessity for a termination date for a rebate as it would be Ofgem's responsibility to make changes to the transmission licence in the event that a discount was no longer necessary. One respondent argued that the final proposal should include a timetable for an enduring solution to be provided and should set out how this would be achieved.

5.39. One respondent argued that more time should be given for further discussions with the industry before the rebate arrangements are finalised.

Ofgem/DTI conclusions

5.40. Ofgem/DTI remains of the view that all transmission connected generators should be liable for transmission charges. However, Ofgem/DTI are also of the view that the unmodified extension of prevailing charging arrangements as they affect small generators who are 132kV connected in Scotland would place such generators at an undue disadvantage relative to other classes of generator.

5.41. Ofgem/DTI recognise that the identification of this issue, whilst highlighted in the context of GB charging, raises important wider questions about the nature of consistent cost-reflective charging across transmission and distribution. However, Ofgem/DTI also recognises that a full consideration of these wider issues is not practicable in timescales associated with a BETTA Go-Live date of 1 April 2005.

5.42. Given that an enduring solution cannot be delivered in relevant timescales, Ofgem/DTI must consider what steps can be put in place to mitigate the effects on small, 132kV connected generators in Scotland whilst also being mindful of the consequent impact on other transmission users. Further, Ofgem/DTI is

mindful of the benefits of transparency and certainty within the regulatory framework in this area, given its potential impact on investment decisions.

5.43. It is Ofgem/DTI's view that the measure proposed in the November document represents an appropriate balance between all of these considerations. Further, that such a measure can be implemented in a manner which provides regulatory certainty where possible, and minimises the impact of the consequential distortion on other transmission users, and therefore in the market for wholesale electricity.

5.44. While it is inevitable that an element of uncertainty as to future use of system charges will continue, it is Ofgem/DTI's view that, in an environment where users are not able to contract longer-term for transmission capacity, the level of uncertainty is not materially different to that which would prevail in the absence of BETTA. Indeed, it could be argued that Ofgem/DTI's decision to address the identified issue in this explicit manner reduces uncertainty, at least in the short term.

5.45. Ofgem/DTI has, in the light of respondents' comments, also considered in more detail arguments that the level of discount anticipated through this measure was not sufficient to ensure non-discrimination. A number of respondents argued that the measure fell some way short of ensuring equality of treatment between transmission and distribution connected generators of the same size.

5.46. Ofgem/DTI are not persuaded by the arguments that the full range of embedded benefits should be available to small, transmission-connected generators. Indeed, it would appear that such treatment would discriminate against distributed generation.

Implementation

5.47. Ofgem/DTI are keen to implement the proposal in a way which is transparent, and which recognises explicitly the temporary nature of the measure. It is also important to ensure that distortions to the setting of charges on a cost-reflective basis by the GB system operator are minimised.

5.48. Ofgem/DTI therefore proposes that the measure should be set out in a stand-alone licence condition. The condition is anticipated to specify:

- eligible generation
- a level of discount against transmission use of system charges for eligible generation, and
- a date at which the licence condition ceases to have effect.

5.49. The detail of the legal drafting is still to be undertaken, and will be the subject of a mini-consultation in due course. However, Ofgem/DTI would expect eligible generation to be defined as generators connected to the 132kV transmission network in Scotland and with capacity less than 100MW. Such parties who on the basis of size would not be eligible for NGC's generation use of system charges if they were distribution-connected.

5.50. The level of discount will be specified with reference to the residual element of NGC's use of system charge to generators. Ofgem/DTI are still considering whether to specify the level of discount as a £ per kW sum fixed for the life of the licence condition, or linked directly to the level of the residual charge in each year that the discount applies. NGC's recent initial consultation on GB charging methodologies set out the level of residual charge under its two charging scenarios. This showed a residual element of between £2.50/kW and £3.50/kW.

5.51. The licence condition is anticipated to apply for three charging years (or part thereof), commencing from BETTA Go-Live. Consideration would also need to be given to whether and how the discount arrangement might be terminated early if the enduring solution is delivered within three years. The choice of three years represents, in Ofgem/DTI's view, an appropriate balance between ensuring that the measure is definitively and transparently short term in nature, while being realistic as to the potential scope of the work required to identify and implement an enduring solution.

5.52. Ofgem/DTI recognise as a priority the need to progress work to deliver an enduring solution to the identified discrepancy between transmission and distribution charging regimes in GB. Arbitrary differences between transmission

and distribution in the manner in which costs are reflected to generators in charges do not promote efficiency, and are not in the long-term interest of consumers. While the proposed measure is a necessary, short-term mitigating step, it should not be viewed as an appropriate element of the charging regime on an enduring basis.

5.53. All distribution and transmission connected generators that contribute to flows on the transmission networks should make an appropriate contribution toward the costs of transmission. Ofgem has yet to make a final decision on the timing of a work programme to address these issues, but given the importance of these matters it is likely that this review would need to commence soon after the implementation of BETTA in 2005.

The CUSC and small generators

Ofgem/DTI proposals

5.54. The CUSC is the standard form of connection and use of system agreement for users of the transmission system, including generators who are connected to the transmission system. It places obligations on such parties to, for example, pay connection and use of system charges and comply with the Grid Code.

5.55. In the November paper Ofgem/DTI set out the view that the GB CUSC should continue to apply to all transmission-connected generation as is presently the case in England and Wales. However, Ofgem/DTI also requested respondents' views as to whether more explicit measures should be taken under the GB CUSC to enable one CUSC party to take responsibility for the obligations of another.

Respondents' views

5.56. This section sets out respondents' view on the issue of the CUSC and small generators and the specific elements of this issue highlighted by Ofgem/DTI for discussion in the November document.

Obligations on small generators

5.57. Of the twelve respondents who commented on these issues there was an even split between those who considered that small generators should be subject to the same obligations as other transmission connected parties under the GB CUSC and those who argued that small generators should be exempt from its requirements.

5.58. Five respondents argued that all generators connected at transmission should have the same requirements under the CUSC. One of those respondents argued that the requirement for small generators to comply with the CUSC and other obligations is a direct consequence of treating 132kV as a transmission voltage. The respondent further noted that the obligations are needed on smaller generators in Scotland as the impact of a small generator is much greater if connected to the 132kV network than the impact on 275kV and 400kV lines. This is recognised by the level of central despatch limits in Scotland.

5.59. Another five parties argued that small generators connected to the transmission system should be exempt from the CUSC. Each of the respondents noted that by being subject to the CUSC, the conditions of which were designed for large generators, the impact would be significantly more onerous for small generators in terms of additional administrative burden and the associated costs. One respondent further noted that the requirement for small generators to be subject to the CUSC obligations would also make the CUSC unworkable due to the vastly increased numbers of parties affected.

5.60. One respondent noted that in addition to CUSC arrangements, generators in Scotland may have to enter into mandatory interface contracts with the Scottish TOs in relation to issues such as safety and site access which will impose greater costs on transmission generators connected at 132kV in Scotland.

5.61. Another respondent questioned whether all generation less than 100MW could be treated as distribution-connected. The respondent argued that this would create equal treatment insofar as the CUSC, transmission network use of system charging and balancing services use of system charging are concerned.

Transfer of obligations

5.62. Eight respondents commented on the subject of whether there was scope for explicit measures to be taken to transfer the responsibility of obligations to another party. The proposal was supported by five respondents. One respondent argued that the CUSC modification process is the appropriate route for such changes should they better facilitate the CUSC objectives. Another respondent noted that the arrangements should be akin to the current BSC provisions in England and Wales.

5.63. Two respondents noted that such interface services would result in additional costs and that as a result an internal cost would simply become an external cost.

5.64. One respondent argued that more extensive arrangements would be required than the proposed agency arrangements to ensure that exposure to CUSC arrangements does not disadvantage small generators in Scotland relative to England and Wales.

5.65. Another respondent argued that if equivalent arrangements are proposed for transferring obligations to other parties then these would require to be specified in the CUSC.

Ofgem/DTI conclusions

5.66. The CUSC is a contract between NGC and users of its transmission system. Under BETTA, all users of the GB transmission system will contract with the GB system operator. Some form of contractual relationships must be in place between NGC and generators who are connected to the transmission system. The question that Ofgem/DTI must consider is whether the CUSC represents an appropriate contractual basis.

5.67. If small transmission-connected generators were not obliged to be party to the CUSC, then an alternative contractual framework would need to be developed. In Scotland today the contractual framework is determined by the bilateral connection agreements (which in turn require compliance with the Scottish Grid Code) and the contractual arrangements associated with making use of the Scotland-England interconnector. Under BETTA, these prevailing contractual arrangements will fall away.

5.68. There are significant benefits from a standard form of contract, with open governance compared to individual bilateral contracts. This has been demonstrated over a number of years, particularly in respect of the Network Code in gas. The experience of the Master Connection and Use of System Agreement (MCUSA), the precursor to the CUSC, in contrast demonstrated that standard contracts without open, transparent governance have significant weaknesses in terms of flexibility and inclusivity. The CUSC and Network Code arrangements, in ensuring that parties who are affected can influence the development of the contractual framework over time, are a key part of ensuring non-discriminatory access.

5.69. While it is possible that an alternative standard contract could be developed for small transmission-connected generators, Ofgem/DTI is not persuaded by the arguments that this is necessary or appropriate. Such a contractual interface would need to provide for the levying of transmission charges and to require compliance with relevant parts of the Grid Code, as discussed in other parts of this chapter, and it is not clear why other elements of the CUSC represent disproportionately onerous obligations for small generators in comparison to other transmission users.

5.70. Further, Ofgem/DTI remains of the view that a standard form of contract which placed lesser obligations on small generators relative to other transmission users without objective justification would raise issues of discrimination. Some transmission parties would, by definition, bear the cost of the obligations avoided by smaller generators.

5.71. However, Ofgem/DTI does intend to modify the CUSC to remove from exemptible generators the obligation also to be a party to the BSC. As discussed in the following chapter on trading issues, Ofgem/DTI does not consider such a requirement as necessary. Under current BSC rules an exemptible generator (with the BSC being silent on whether such a generator is transmission or distribution connected) can choose either to be a BSC Party itself and accept responsibility for its own export under the BSC, or elect to appoint a BSC Party (e.g. a licensed Supplier) to be responsible for its export on its behalf. There is a recognition therefore that the generator might not be a BSC Party. In Ofgem/DTI's view it is appropriate to enable exemptible, transmission-connected generators to opt for this trading option also.

5.72. In respect of the potential to develop arrangements on the face of the CUSC to facilitate, more explicitly, the transfer of obligations between parties, as a means of smaller generators managing the cost of contracting with NGC more efficiently, Ofgem/DTI can see merits in this approach. While Ofgem/DTI accept the argument that such arrangements might not eliminate costs completely, if there are any economies of scale in this area then there should be potential savings to be made through, in effect, consolidation.

5.73. However, Ofgem/DTI does not consider that they are best placed to develop the detail of such arrangements. Rather, Ofgem/DTI agrees with respondents who noted that the appropriate route for the development of such arrangements, which would benefit from detailed consideration by the industry, is the CUSC amendments process.

The Grid Code and small generators

5.74. This section describes Ofgem/DTI's proposals from the November document and respondents' views in respect of the three Grid Code issues highlighted in that document. Ofgem/DTI's conclusions are set out at the end of the section.

Size bands

Ofgem/DTI proposals

5.75. The Grid Codes currently in place in England and Wales and in Scotland place different obligations on generators in respect of the technical operation of the respective transmission systems. A key area of difference relates to the definition of size bands in determining what obligations apply to any individual generator. The England and Wales Grid Code has three size bands whereas the Scottish Grid Code has size bands in relation to 'central despatch limits'. The obligations which relate to those bands reflect what has been considered necessary, in the view of the transmission licensees, to ensure system integrity and maintain planning and operating standards.

5.76. In the November paper Ofgem/DTI proposed that to ensure continued system integrity and that relevant standards could continue to be met it would be appropriate initially to retain the individual obligations and size bands currently

in place while placing an objective on the GB system operator to minimise regional differences in the Grid Code. While harmonisation remains the longer term aim this should follow a comprehensive process of review based on experience of operating a GB transmission system.

Respondents' views

5.77. Three respondents argued that the current obligations in the different Grid Codes should be retained and reflect regional variation. One of the respondents noted that it is imperative to ensure that the transition to a GB Grid Code must not reduce system integrity or the ability to meet operational standards.

5.78. On the other hand four respondents argued that the proposed size band definitions are inappropriate. Three of these respondents noted the view that those bands would impose significantly more onerous obligations on the operators of small plant connected to the transmission system in Scotland compared to equivalent generators in England and Wales. One of the respondents argued that it may be appropriate to change the definition of small generators in Scotland to be consistent across GB.

5.79. Two respondents supported the view that it was appropriate to seek to harmonise obligations in the longer term in order to minimise regional differences. One of the respondents noted that a comprehensive process of review was required in light of operating a GB transmission system, otherwise generators would incur significant costs in the interim in setting up systems and processes.

5.80. One respondent argued that a new class of 'micro' generation should be created and defined as less than 100kVA. The respondent argued that generators of that size should not have to enter into agreements with the system operator or pay transmission charges.

Mandatory ancillary service obligations

Ofgem/DTI's views

5.81. In England and Wales the obligations to provide mandatory ancillary services, such as reactive power and frequency response, are set out in the Grid Code.

These arrangements include an exclusion from the requirement to provide such services for Small Power Stations (less than 50MW) and for hydro units and renewable energy plant not designed for frequency and voltage control. In Scotland by contrast all generators regardless of size are required to be able to provide all mandatory ancillary services except by agreement with the relevant transmission licensee (SP Transmission Limited or Scottish Hydro Electric Transmission Limited). In addition while there are arrangements in England and Wales set out in the CUSC for compensating generators in the event that such services are required, no such compensation arrangements exist in Scotland.

5.82. In the November document Ofgem/DTI set out the view that, given the current levels of provision of mandatory ancillary services in England and Wales and in Scotland are appropriate to ensure system integrity, these levels of provision should be retained in the GB Grid Code. Under BETTA, all generators will need to comply with all aspects of the GB Grid Code that apply to them unless there is an explicit carve-out on the face of the Grid Code or a derogation has been granted to the relevant licensee by Ofgem.

Respondents' views

5.83. A range of views were expressed regarding the future treatment of the requirement to provide mandatory ancillary services.

5.84. Two respondents argued that the current levels of provision of ancillary services should be maintained under BETTA to ensure system integrity. One of the respondents noted that small generators currently subject to central despatch, transmission or distribution connected, should continue to provide the services and information necessary to support the operation of the 132kV transmission system in Scotland. However, the same respondent accepted that it may be possible to provide a standard MW level across GB in relation to the provision of services that contribute to national energy issues. The other respondent noted that existing bilateral agreements should be dealt with on a case-by-case basis and all future derogations handled as per England and Wales arrangements.

5.85. Another two respondents expressed support for the introduction of a market-based approach as have been proposed in England and Wales for the provision of ancillary services. Both noted that such an approach should enable

resolution of issues relating to mandatory services and other GB Grid Code obligations. One of the respondents further noted that at the same time generators should not be forced to provide services that they were previously not required to provide.

5.86. Four respondents argued that the treatment of mandatory ancillary services should be brought into line with arrangements in England and Wales. Three of those respondents agreed that to continue with more onerous requirements in Scotland would be to discriminate against generators under 50MW in Scotland and that consequently the 50MW threshold should be applied in Scotland. The other respondent expressed the view there should be obligations on the GB system operator to remove all 'regional costs' in the Grid Code. One of the respondents noted that as renewable generation tends to be intermittent it would be more difficult for it to comply with a number of the Grid Code obligations (including those relating to mandatory ancillary services) which may not be required of their counterparts in England and Wales.

5.87. Five respondents argued that clarification was required regarding how the GB system operator would replicate any relaxation to the Scottish Grid Code obligations that small generators have agreed with the Scottish transmission licensees. All argued that it would be necessary to place conditions on NGC to ensure such arrangements were replicated. One respondent argued that the absence of clarification added to the uncertainty facing small generators. Another respondent supported the move to an enduring regime whereby any relaxation from Grid Code requirements is provided in a transparent manner by derogations against technical requirements granted by the Authority.

5.88. One respondent put forward the view that for smaller distribution connected generators the technical requirements should be set out in the Distribution Code rather than the Grid Code.

5.89. Another respondent argued that the requirement for all generators in Scotland to provide ancillary services was unenforceable for distribution connected unlicensed generators.

Sending and receiving data

Ofgem/DTI's views

5.90. The England and Wales Grid Code places obligations on generators classed as Medium or Large to provide data to NGC, and to be able to receive and act upon operational instructions from NGC. The information flows include, in particular:

- all BM Participants[21] are obliged[22] to provide operational data and bids or offers to NGC in a prescribed format using an Electronic Data Transfer ('EDT') link; and
- users who wish to participate in the Balancing Mechanism are required[23] to have appropriate automatic logging devices installed at the 'Control Points' of its BM Units (Electronic Despatch Logging 'EDL') to receive balancing instructions from NGC.

5.91. In the November paper Ofgem/DTI set out the view that as specialist IT equipment is not necessary to submit data the existing EDT provisions in NGC's Grid Code would not represent an undue burden on small, transmission-connected generators. Ofgem/DTI did note that the costs of an EDL link are more significant but proposed that the existing provisions of the BSC and Grid Code that enable small generators to, in effect, appoint an agent to handle EDL-based communication on its behalf are a robust mechanism to provide small generators with potential access to the Balancing Mechanism.

Respondents' views

5.92. Seven respondents commented on the issues associated with sending and receiving data under a GB Grid Code. Of these four respondents agreed that it was appropriate for the GB system operator to collect information for operational

[21] A person who is responsible for and controls one or more BM Units. Note this does not imply they have to be active in the Balancing Mechanism.
[22] E&W Grid Code CC.6.5.8(a)
[23] E&W Grid Code CC.6.5.8(b)

purposes from all parties connected to the transmission system and that the collection of that data should not unduly burden small transmission connected generation.

5.93. One of these respondents said the appointment of an agent to handle the EDL based communication on its behalf would provide a cost-effective means of accessing the Balancing Mechanism. Another considered that it would not be unduly onerous to provide information via the existing EDT provisions in NGC's Grid Code. On the issue of EDL information the same respondent noted that if such generators were not required to be signatories to the BSC then the issue of the EDL information disappears as these generators could sell output to another third party who will be a BSC Party and can provide the required information.

5.94. The other two respondents noted that it is essential that the appropriate data is sent and received for all power stations that may affect the operation of the transmission system. One of the respondents put forward the view that an obligation to be registered as a BM Unit or equivalent obligation will be required for generators in Scotland that are currently below the England and Wales size limits to ensure that the GB system operator has the data necessary to operate the transmission system economically and securely.

5.95. One respondent argued that the requirements in respect of provision of data would represent an undue burden on small transmission connected generators in Scotland.

5.96. Another respondent noted that experience of requiring compliance with NGC's requirements for EDT and EDL communication infrastructure in securing access across the Scotland-England interconnector had suggested that these requirements do act as considerable barriers to entry.

5.97. Only one respondent commented on the proposal to appoint an agent to handle EDL based communication. That respondent agreed that such an approach would provide a cost effective means of accessing the Balancing Mechanism.

Ofgem/DTI conclusions

5.98. The primary objective in considering how to specify Grid Code obligations must be to ensure system integrity. A starting point must therefore be that the

obligations that prevail today must at least be retained. Ofgem/DTI remains of the view, therefore, that obligations applying to small generators pursuant to the Scottish Grid Code must be retained in the short term. It would be a matter of concern to Ofgem/DTI if NGC, in operating the GB transmission network, did not have available to it the same tools for operating the system that are currently available to the Scottish transmission licensees.

5.99. Ofgem/DTI's policy objective is to ensure that existing obligations under the Scottish Grid Code can be carried across to a GB Grid Code under BETTA. To the extent that such obligations are not unduly onerous today, Ofgem/DTI are not persuaded by the arguments that they will become unduly onerous under BETTA. In the light of consultation responses, Ofgem/DTI remain of the view that the obligations in respect of submitting data using the EDT link are not onerous. Further, Ofgem/DTI consider that the ability to transfer responsibility to another party and to group individual small generators behind a single 'control point' responsible for handling EDL communications in respect of Balancing Mechanism acceptances and operational instructions represents an effective way of managing the costs of this element of Grid Code compliance for small generators.

5.100. Ofgem/DTI notes the comments made by a number of respondents that imply that the obligations set out in the Scottish Grid Code do not reflect the actual obligations placed on generators through connection agreements, and in the day-to-day operation of the Scottish networks. Whilst it is not Ofgem/DTI's intention for generators to be required to provide services other than those they provide today, Ofgem/DTI do not consider this lack of transparency in Scotland as to what exactly generators are obliged to provide, to be an appropriate feature of GB arrangements going forward.

5.101. To the extent that obligations in the Scottish Grid Code are too onerous or do not accurately reflect the level of obligations enforced through contract today, the appropriate route for amending the obligations is through amendment to the Grid Code (to the extent that such differences are generic across a class of generator) or through application to the Authority for derogation.

5.102. In ensuring that NGC, in its capacity as system operator, has available to it the same operational tools as are currently available to Scottish transmission licensees, it is also necessary to consider the route by which obligations set out in the Grid Code are contractually enforced and how they are made operational. Further discussions with the transmission licensees have highlighted a potential issue to be resolved. The issue relates to obligations under the Grid Code for parties in Scotland who are defined as 'Large', but who are distribution-connected and would not under the GB arrangements necessarily be required to comply with the Grid Code or register as a BM Unit. It is Ofgem/DTI's understanding that compliance with the Scottish Grid Code is currently stipulated in the connection agreements of these parties, and it is not anticipated that a requirement to comply with the GB Grid Code will be a feature of the revised distribution connection agreements under BETTA.

5.103. There are two broad options for addressing this issue within the contractual and regulatory framework under BETTA. The first option would be to establish a direct contractual link between large (as defined in the Grid Code) distribution-connected generators and the GB system operator. This could be done by refining obligations placed upon DNOs under the CUSC to take steps to ensure that such agreements with the GB system operator were in place for such generators. The DNOs would be expected to discharge this obligation through the connection agreements that they held with such generators. The second option would be to refine the contract between the GB system operator and the DNO requiring the DNO to ensure that such services/information are provided by 'Large embedded powers stations' thereby addressing the issue indirectly via the DNO.

5.104. Ofgem/DTI, following discussions with the transmission licensees, consider that the issue needs to be addressed in order to ensure that the ability of the GB system operator to operate the network is not reduced relative to system operation today, and are of the view that either one of the broad options characterised above could be made to work. However, it requires further work by the transmission licensees to develop a more detailed model for what is required and how it will be operated. In the light of this further work Ofgem/DTI intend to issue a 'mini consultation' on the appropriate way forward in June 2004.

5.105. In developing such a model, Ofgem/DTI are keen to ensure that the obligations placed on generators reflect, as far as practicable, the obligations that are currently in place today, and do not place unnecessary additional obligations or burdens on such generators. For example, Ofgem/DTI would not support a model that required such generators to be BM Units (on the basis that such a model would be operationally convenient for NGC), because it would also have the effect of placing additional unnecessary obligations on the generator (i.e. to trade on the basis of a BM Unit).

6. Trading issues

6.1. This chapter sets out, in respect of the trading related issues highlighted in the November document, a summary of responses and Ofgem/DTI's conclusions.

BSC Trading Charges

Ofgem/DTI proposals

6.2. ELEXON's costs are recovered from BSC parties through charging arrangements specified in Section D of the BSC. If the current arrangements were applied on a GB basis then small transmission connected generators would be liable for both fixed costs and charges linked to output on the same basis as other transmission connected generators.

6.3. In the November paper Ofgem/DTI set out the view that the current structure of charges under the BSC in England and Wales would not result in disproportionate trading charges for small generators if it were applied in broadly the same way under a GB BSC and would therefore not represent a barrier to entry.

Respondents' views

6.4. Six respondents commented on the treatment of trading charges under the BSC. Three of these put forward the view that requirement to pay should not be affected by size and consequently that small generators should be liable for ELEXON's charges on the same basis as other transmission connected or large distribution connected generation. Two of these respondents argued that the current structure of charges under the BSC should not constitute an undue burden on small generators as these are mainly based on metered volumes.

6.5. However, one respondent felt that although trading charges account for relatively small amounts of money, such charges may be proportionately significant for small generators. The same respondent thought, therefore, that small generators should not be liable for ELEXON charges on the same basis as large generators.

6.6. Another two respondents considered that small generators should be exempt from trading charges unless they opt to sign the BSC. They noted that this is the situation for small distribution connected generation in England and Wales who trade with suppliers and should be the starting point for consideration of small generators exposure to BSC charges.

Ofgem/DTI conclusions

6.7. Ofgem/DTI remain of the view that BSC trading charges do not represent an unduly onerous burden for small transmission-connected generators, and that such generators should therefore be liable for such charges on the same basis as other transmission connected generators. Ofgem/DTI do not therefore propose to amend the BSC in respect of this issue.

6.8. Ofgem/DTI agree with the respondent that BSC trading charges should only be borne by BSC Parties, and if a small generator is not required to be a BSC Party and does not choose to be a BSC Party, then the generator will not be liable for BSC trading charges.

Trading options for small transmission-connected generation

Ofgem/DTI views

6.9. The CUSC currently in place in England and Wales states that all users who are connected to or using the NGC transmission system shall be a party to the BSC. This implies that generators connected at 132kV in Scotland would be obliged to be BSC parties under a GB CUSC with this clause in it. As a result, this would prevent small generators in Scotland from utilising one of the trading options available to small generators in England, i.e. by contracting with a supplier and avoiding direct exposure to central settlement.

6.10. The view set out by Ofgem/DTI in the November paper was that it is not immediately clear whether it is necessary for small, directly connected generators to be parties to a GB BSC. Ofgem/DTI suggested that an alternative approach would be to enable another party to take responsibility for the generator's output under the BSC. This would mean that exemptible

transmission-connected generators would be in the same position as exemptible distribution-connected generators in terms of when and how they are able to allocate responsibility for a metering system to a BSC Party, e.g. a licensed Supplier.

Respondents' views

6.11. There were eleven responses on this subject the majority of which supported the proposals to exempt small generators from the requirement to be a party to the BSC.

6.12. Seven respondents argued that given the administrative burden that being a party to the BSC would place on small generators it would be appropriate to introduce an arrangement that removed this requirement. Three of the respondents set out the view that to do otherwise would discriminate against small generators. One respondent noted that if the small generators were required to be parties to the BSC it would make the BSC unworkable due to the vastly increased numbers of parties affected.

6.13. Three respondents argued that there should not be a 'carve out' for small transmission connected generators from the requirement to be party to the BSC. One respondent argued that obligations are needed on smaller generators in Scotland as the impact of a small generator is much greater if connected to the 132kV network than the impact on 275kV and 400kV lines. Another respondent put forward the view that to the extent to which certain obligations in the BSC may be onerous for small generators, these should be addressed by modifications to the BSC being raised by the parties concerned.

6.14. The third respondent who did not advocate the use of a 'carve out' for small transmission connected generation noted that in the event that such an approach was adopted an arrangement based on plant size would need to be flexible. The respondent proposed that rather than setting a fixed limit of say 50MW, any 'carve out' arrangement should apply on a sliding scale from say 25MW (full impact) to 75MW (no impact). The respondent suggested that such an approach would alleviate any deliberate re-rating of plant.

6.15. Three respondents suggested that the trading options available to small generators should be expanded. Two of the respondents argued that the proposal to create a 'carve out' from the requirement to be a party to the BSC would not in itself place them on equal commercial terms with small generators in England and Wales. The respondents suggested that under the BSC parties directly connected to the transmission system such as 132kV connected generators required to be registered in CMRS and that changes should be introduced to allow 132kV connected generators to register in SMRS rather than CMRS and thus be treated as part of a supplier's demand BMU.

6.16. One of the respondents further argued that to further equalise commercial opportunities the options available to England and Wales generators to create "Trading Units" with other units in the same GSP Group thereby allowing them to participate in the Balancing Mechanism and maintain their embedded benefits should be extended to Scotland.

Ofgem/DTI conclusions

6.17. Ofgem/DTI remains of the view that if responsibility for the output of a small generator can be transferred to another party without the need for the generator to become first a Party to the BSC, then this should be available to all small (i.e. exemptible) generators. Ofgem/DTI are therefore minded to amend the CUSC to remove the requirement for exemptible transmission-connected generators to be a party to the BSC. For the avoidance of doubt, obligations to comply with the CUSC and the Grid Code would not be affected.

6.18. In terms of what this means for a transmission-connected small generator, it will place them on a similar footing to other exemptible generators in terms of their obligation to be a BSC party. The BSC requires that a party needs to take responsibility for the output of a particular BM Unit, but the proposed change to the CUSC discussed above would permit a generator to transfer this responsibility to another party thereby avoiding the need to be a BSC party itself.

6.19. Further, exemptible generation, regardless of whether it is transmission or distribution connected, can under the BSC declare its status to be either production or consumption – in contrast to licensable generation, which is required to have production status. Consequently, even if the generator opts to

be a BSC Party, it can declare its status to be consumption and can consolidate its output with another consumption BM Unit, e.g. any Supplier BM Unit.

6.20. Essentially, these arrangements will allow a generator to contract with a supplier and play no other role pursuant to the BSC. The rules set out in the BSC as to how the metering system must be registered would, however, not be affected. The intended measure would simply amend who, potentially, was responsible for undertaking this task.

Access to consolidation services

Ofgem/DTI views

6.21. The BSC in England and Wales provides various opportunities for consolidation services. The scope for these services has been increased by a number of modifications to the BSC.

6.22. In the November paper Ofgem/DTI noted the potential increase in demand for consolidation services as a result of the creation of a GB market, and in particular the scope for increased demand from small, transmission-connected generation. Ofgem/DTI expressed a view that the prevailing arrangements within the BSC provided a sound basis for consolidation within a GB market, but invited views as to whether barriers existed such that potential new demand for consolidation services could not be met.

Respondents' views

6.23. Of those who responded on this issue the majority favoured the use of consolidators by small generators as a trading option.

6.24. Three respondents supported the view that the trading rules should facilitate consolidation services and that the use of those arrangements should be consistent across GB. One respondent believed that the existing framework for consolidation services would be a suitable starting point for such services in a GB market. It also considered that if there is a demand for further development of these arrangements, then there is adequate potential for changes to be progressed through the code modification process.

6.25. Two respondents noted that the development of commercial consolidation services is unlikely to be cheap. Both argued that they would not be an adequate solution to not having the same trading options as 132kV connected generators in England and Wales.

6.26. One respondent said it would welcome greater clarity in the BSC and particularly within the CUSC with regards to the use of consolidators and/or agents. Another party noted that they would intend to offer consolidation services under GB arrangements.

Ofgem/DTI conclusions

6.27. Ofgem/DTI remains of the view that the existing basis for consolidation set out in the BSC represents a sound basis for handling potential growth in demand for consolidation services under a GB BSC. Further, to the extent that the arrangements can be refined, Ofgem/DTI views the BSC modifications process as being the appropriate route.

6.28. Ofgem/DTI remains of the view that transmission-connected generators should be required to register metering systems centrally (even if the responsibility for the metering system has been transferred to a BSC Party). It would not be appropriate to treat transmission-connected generators in the same way as distribution-connected generators in terms of the ability to 'net off' behind a local supplier, and thereby realise embedded benefits.

Other issues

6.29. In seeking to identify a complete list of issues in respect of small generators and BETTA, Ofgem/DTI sought views on any other issues overlooked in the November consultation.

Respondents' views

Impact of proposals on renewables

6.30. The majority of other responses received to the November consultation concerned the impact of the proposals on renewable generators.

6.31. Ten respondents argued that the proposal would disadvantage renewable projects and in doing so put at risk the Government's renewable targets. One respondent expressed the view that this was inevitable because the best resource for hydropower and wind tends to be in areas where the transmission and infrastructure are weak. Another respondent argued that only by allowing renewable generators access to the widest possible market would it be possible to meet the government's renewable targets. A third respondent suggested that if small generators were treated consistently they are more likely to obtain project finance and encourage more schemes to come forward.

6.32. One respondent suggested that one way to ensure the achievement of the Government's renewables targets would be if NGC were given a supplementary licence condition to support the achievement of UK Government Energy policy. They argued that this would prevent Government, Ofgem and NGC from working to conflicting objectives.

6.33. At the same time two respondents put forward the view that the proposals would also threaten security of supply by resulting in charges that bring into question the viability of conventional generation in Scotland.

NETA

6.34. Three respondents questioned the use of the existing electricity arrangements in England and Wales as a basis for developing GB trading arrangements. Two of the respondents did not accept that the current England and Wales trading arrangements would provide an efficient method of trading for small generators. The respondents noted that by simply extending the existing arrangements the problems for small intermittent generation would not be addressed.

6.35. Another respondent argued that the November consultation should have sought to address the problems that exist for small generators under NETA.

Process

6.36. The process that has been adopted for addressing small generator issues within the BETTA project was questioned by a number of respondents.

6.37. Three respondents expressed concerns that while the process of preparation for BETTA has reached an advanced stage, key small generator issues were falling behind. One of those respondents questioned how Ofgem would ensure that comments provided were taken into consideration in making changes to relevant codes and legislation.

Ofgem/DTI's views

6.38. The objective of BETTA is the creation of a single set of GB transmission and trading arrangements. Whilst Ofgem/DTI understand the desire of respondents to interpret this objective quite widely for the purpose of raising issues, the scope of the legislation being sought is, appropriately, relatively narrow. It is limited to changes that are necessary or expedient for the creation of a single set of GB transmission and trading arrangements.

6.39. Consequently, it is not the objective of BETTA to consider whether and how the Government's policy on renewable generation should be progressed, or whether the market arrangements in England and Wales were established on an appropriate basis or not.

6.40. In terms of process, Ofgem/DTI has taken pro-active steps to ensure that the way in which BETTA affects small generators has been given full consideration, and wide consultation. Small generator issues are the only issue upon which Ofgem/DTI has consulted on a thematic basis, i.e. across the set of Codes, licences and documents, rather than on a document-specific basis. Further, this process is being progressed such that conclusions can be reflected in relevant documents for BETTA Go-Live.

Appendix 1 Non- confidential responses

Association of Electricity Producers

Airtricity

British Energy

British Hydro Power Association

British Wind Energy Association

Centrica

Community Wind Power Ltd

EDF Energy

Edison Mission Energy

Environmental Sustainable Systems Ltd

Grangemouth CHP Ltd

Green Power

Highlands & Islands Enterprise

National Grid Transco

Ormsary Farmers

PowerGen

Provenenergy

Renewable Energy Development Group

Renewable Power Association

RWE Innogy

Scottish Enterprise

Scottish Renewables Forum

Sgurr Energy

SP Transmission Ltd

Scottish Power Energy Management

Scottish & Southern Energy plc

United Utilities

Wavegen

West Coast Energy Ltd

Wind Prospect

Wiseenergy