



**AMENDMENT REPORT VOLUME 1**  
**CUSC Amendment Proposal CAP161**  
**Transmission Access-**  
**System Operator Release of Short-term Entry Rights**

*The purpose of this report is to assist the Authority in their decision of whether to implement Amendment Proposal CAP161*

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## 1.0 SUMMARY AND RECOMMENDATIONS

### Executive Summary

- 1.1 CAP161 Transmission Access – “System Operator Release of Short Term Entry Rights” was proposed by National Grid. Separately, and at the same time National Grid also raised a number of other Connection and Use of System Code (CUSC) amendments relating to transmission access. The CUSC Amendment Panel divided the work to assess the four shorter term transmission access CUSC Amendment Proposals (CAPs161, 162, 163 and 164) into a single Working Group (known as Working Group 1). A further Working Group (known as Working Group 2) was also organised to look at longer term transmission access issues associated with CAPs 165 and 166. Separate to these two Working Groups, the CUSC Panel established a third Working Group that acted as a sub-group to both Working Group 1 and Working Group 3 (known as Working Group 3).
- 1.2 This report covers the discussion in Working Group 1 relating only to CAP161. Working Group 3 assessed common areas between all the six proposals and the relevant areas of discussion are included in this consultation.
- 1.3 Implementation of the Original or an Alternative would require consequential changes to other industry documents. The Working Group has indicated in this report where it thinks changes may be required. The Working Groups were also jointly tasked from the Transmission Charging Methodologies Forum (TCMF) to develop the consequential charging modifications. The details of all consequential changes will be the subject of separate assessment under charging governance. National Grid is currently developing the charging arrangements, a pre consultation on the relevant charging arrangements was released during the CAP161 Working Group consultation period to inform the Industry of the associated charging issues.
- 1.4 CAP161 proposes to introduce new arrangements into the CUSC which will require the System Operator to host auctions for transmission access rights close to real time (the short term). Working Group 1 is proposing that these auctions are held at 5 weeks ahead and at 2 days ahead of real time. Access rights released through these auctions would be for periods of 1 week and 1 day respectively.
- 1.5 National Grid would publish an auction methodology statement, the System Operator (SO) Release Methodology Statement, detailing the assessment process. The intention is that the SO Release Methodology Statement will come under CUSC or CUSC-style governance once agreed.
- 1.6 Under the Original amendment proposal bids from CUSC Parties in the auction would be firm, and payment would be pay as bid. The access released would be in pre-defined zones. National Grid would release transmission access based on economic rather than physical criteria i.e. if the bid value exceeds the forecast cost of accommodating the bid volume over the requested period then National Grid would accept the bid. The SO Release Methodology Statement will describe how competing bids for the same capacity are treated. Once transmission access has been granted, the recipient will essentially have the same rights as other parties granted access to the transmission system through longer term arrangements.

- 1.7 The Working Group has also discussed alternative proposals: Commercial Limited Duration TEC (CLDTEC), and nodal versions of the Original and CLDTEC. CLDTEC is a longer term mechanism for securing transmission access, similar, but considered more flexible and cost reflective by some Working Group members than existing LDTEC arrangements in the CUSC. Parties seeking CLDTEC would apply to National Grid for a block of capacity (with a minimum duration of one week) between seven weeks ahead and the end of the financial year. National Grid would assess the request on a weekly basis and prepare an offer for the applicant, detailing weekly volume and overall price. The price associated with the offer would be based on National Grid's forecast cost of providing access for the volume available within the price specified by the applicant. The applicant would have one day to accept the offer.
- 1.8 The Working Group believes that the Original and CLDTEC can co-exist and so intend to present them as separate and combined alternatives.
- 1.9 The Original amendment proposal envisaged that transmission access would be released on a zonal basis. Working Groups 1 and 3 have both concluded that the zonal option cannot be implemented without a risk of unacceptable constraint costs. Therefore both Working Groups have agreed that an alternative nodal version of the amendments should be presented.
- 1.10 Including nodal alternatives, with and without CLDTEC creates 3 Working Group Alternative Amendments. National Grid indicated that the basic calculation for CAP161 was nodal and so adopting a nodal solution presented no significant additional issues. Indeed, nodal would also allow a greater volume of capacity to be released as it was known where it was being used.
- 1.11 National Grid has consulted in accordance with the requirements of the CUSC and the representations are included in Volume 2 of this report.

**Working Group Recommendation**

- 1.12 Working Group 1 believes that its Terms of Reference have been completed and CAP161 has been fully considered. Opinions within the Working Group were divided on the best WGAA; however all of the WGAA's were assessed as better than the baseline. At the final meeting on 18 November 2008 fifteen members of Working Group 1 cast votes. The result were:

<b>Voting Results</b>	<b>For</b>	<b>Against</b>	<b>Abstain</b>
Original better than Baseline	4	10	1
WGAA1 better than Baseline	14	0	1
WGAA2 better than Baseline	8	6	1
WGAA3 better than Baseline	9	5	1

- 1.13 The Working Group also voted on which of the Original or the WGAA's better meets the CUSC applicable objectives:

<b>Voting Results</b>	<b>For</b>
Original best	0
WGAA1 best	8
WGAA2 best	0
WGAA3 best	7

### Amendment Panel Recommendation

- 1.14 The Panel agreed that the Working Group had fulfilled its Terms of Reference. A number of Panel members stated that the report was as complete as possible given the time constraints associated with the wider Transmission Access Review. At the Panel meeting on the **19 December 2008** the Panel vote as follows:

<b>Voting Results</b>	<b>For</b>	<b>Against</b>	<b>Abstain</b>
Original better than Baseline	0	8	0
WGAA1 better than Baseline	8	0	0
WGAA2 better than Baseline	5	3	0
WGAA3 better than Baseline	5	3	0

- 1.15 The Amendment panel also voted on which of the Original or the WGAA's better meets the CUSC applicable objectives:

<b>Voting Results</b>	<b>For</b>
Original best	0
WGAA1 best	8
WGAA2 best	0
WGAA3 best	0

- 1.16 A number of Panel Members expressed concerns about the process that had been followed for the suite of modifications related to the transmission access review. The Panel agreed that a discussion covering these concerns along with lessons learned and consideration of how the conclusions are best communicated to the wider industry will take place at the Panel meeting in February. This will align with the completion of CAP166 and consideration of the interaction between modifications and the associated changes to the Charging Methodologies. The conclusions of this discussion will be forwarded to Ofgem such that they can feed into their assessment of the modifications, and potentially their wider work on Codes Governance.

### National Grid Recommendation

- 1.17 National Grid does not support implementation of the CAP161 Original proposal due to the issues associated with a zonal definition of access rights identified during the Working Group assessment.
- 1.18 The analysis performed by National Grid demonstrates that the potential increase in operational costs involved and hence, the price at which SO Release could be offered would be unacceptable and so the introduction of these arrangements would not better facilitate the efficient discharge by the Licensee of the obligations imposed upon it by the Act and the Transmission Licence, particularly the requirement to be economic and efficient.
- 1.19 National Grid supports the implementation of the Working Group Alternative Amendment 1 (WGAA1) that retains the nodal definition of access. This proposal introduces arrangements that, whilst not as flexible for Users as those initially proposed, do provide a practical means by which to gain economic access from the System Operator in the short term.
- 1.20 The Working Group Alternative Amendment 1 better facilitates the efficient discharge by the Licensee of the obligations imposed upon it by the Act and the Transmission Licence by allowing Users at Power Stations with different

operating regimes to book capacity relatively close to real time, maximising the efficient use of the GB transmission system. These Users will only apply for additional long term access rights if it is economic to do so given the choice of SO Release (which is priced at the forecast short term cost). This would improve the signal provided to National Grid to invest in the transmission system, leading to the development of a more economic and efficient transmission system. The Working Group Alternative Amendment 1 better facilitates competition by providing alternative transmission access options for all Users, and by potentially freeing up long-term access rights for use by new Users if existing Users choose to operate on short term access rights, for all or a portion of their capability, and therefore optimise their long-term access rights holdings.

- 1.21 Working Group Alternative Amendments 2 and 3 introduce a longer term form of SO Release. National Grid has some concerns that this could frustrate effective competition. The SO may not be able to effectively manage the risk to third parties through forecasting the increased operational costs for the duration covered by the product. The SO would need to build in a risk margin that may render the product useless or expose third parties to higher balancing costs. However, National Grid recognises that CLDTEC is more flexible than existing LDTEC and STTEC products and so may facilitate more efficient use of the transmission system. Given the proposed changes to charges, particularly residual and local charging, the concern that CLDTEC could allow free-riding is avoided.
- 1.22 In summary, because of the concerns above our first preference is that WGAA1 is implemented, WGAA3 is our second preference.

## 2.0 PURPOSE AND INTRODUCTION

- 2.1 This Amendment Report has been prepared by National Grid under the rules and procedures specified in the CUSC as designated by the Secretary of State.
- 2.2 Further to the submission of Amendment Proposal CAP161 and the subsequent wider industry consultation that was undertaken by National Grid, this document is addressed and furnished to the Gas and Electricity Markets Authority (“the Authority”) in order to assist them in their decision whether to implement Amendment Proposal CAP161.
- 2.3 CAP161 was proposed by National Grid and submitted to the Amendments Panel for their consideration on 25<sup>th</sup> April 2008. CAP161 Working Group Report was submitted to the CUSC Amendments Panel meeting on 21 November 2008. Following evaluation and consultation by the Working Groups, the Amendments Panel determined that CAP161 was appropriate to proceed to wider industry consultation by National Grid.
- 2.4 This document outlines the nature of the CUSC changes that are proposed. It incorporates National Grid’s recommendations to the Authority concerning the Amendment. Copies of all representations received in response to the consultation have been included in Volume 2 of this report.
- 2.5 This Amendment Report has been prepared in accordance with the terms of the CUSC. An electronic copy can be found on the National Grid Website, [www.nationalgrid.com/uk/Electricity/Codes/](http://www.nationalgrid.com/uk/Electricity/Codes/).

### 3.0 PROPOSED AMENDMENT

- 3.1 The full text of the amendment is set out in Annex 4 of the Consultation. CAP161 seeks to allow National Grid to release additional entry rights in operational timescales (the short-term). These short-term entry rights would be released only when National Grid believes there is spare capacity on the transmission system, where spare capacity is defined in economic rather than physical terms as capacity for which the bid price exceeds the forecast increase in operational costs i.e. the bid price exceeds the cost of providing the capacity.
- 3.2 National Grid would release short-term entry rights to the transmission system through auctions. The processes of the auctions have been established by the Working Group and are described in section 4 of this Consultation. The original proposal envisages that the transmission access rights would be zonal with a duration that is set to best meet both User and SO requirements, to be determined by the Working Group.
- 3.3 The construction of a reserve price, the process for which does not form part of the CUSC (the precise process may not be documented within the CUSC but a general principle such as whether it is intended to reflect cost and risk or alternatively whether it can be what the market will bear), will be linked to the forecast cost and risk of releasing the short-term entry rights.
- 3.4 Once granted, SO Release short-term entry rights would generally confer the same right as any other transmission entry access product (i.e. compensation if withdrawn). However, in order to maximise the potential volume offered, consideration has been given to a codified buyback price that would be set by the applicant with their bid for the capacity. This would allow greater volumes at lower prices to be released.
- 3.5 The Original amendment includes a revised process for 'local only' applications (connection without long-term entry rights for the wider system) and also a change in the nature of long-term and short-term entry rights from nodal to zonal. The zones used would be consistent across all long-term and short-term products. The proposer suggests that in order to ensure equitable treatment of non locational asset costs that the residual charge should be treated in a different manner than under existing arrangements. The proposer also suggested that all Users should contribute to the residual charge.
- 3.6 The Original proposal indicates that there may be credit implications, these were considered by the Working Group in accordance with the Best Practice Guidelines for Gas and Electricity Network Operator Credit Cover.
- 3.7 The Original proposal included a strawman for a rolling weekly auction, releasing a weekly block of access with a five week lead time.
- 3.8 The Amendments Panel determined that the proposal should be considered by Working Groups 1 and 3 and that the Working Groups should report back to the Amendments Panel meeting within 3 months. In all respects, Working Group 1 acted as the CAP161 Working Group ('the Working Group'). Working Group 3 is constituted as sub-group to Working Group 1, voting and consultation on CAP161 was undertaken by Working Group 1<sup>1</sup>. The

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<sup>1</sup> Transmission Access Working Groups 1 and 3 are interchangeable with Working Group 1 and 3 respectively in this report.

Amendments Panel and Ofgem subsequently agreed a further 2 month extension to these timescales in light of the approval of CAP160, which includes the requirement for the Working Group to consult on proposals.

- 3.9 Working Group 1 has met 15 times and Working Group 3 met 12 times. The Working Groups agreed the relevant Terms of Reference set by the Panel. The attendance record is provided in Annex 3. A copy of the Terms of Reference is provided in Annex 2. The Working Groups considered the issues raised by the Amendment Proposal and considered whether the Original and the Working Group Alternative Amendments better facilitated the Applicable CUSC Objectives.

#### **4.0 SUMMARY OF WORKING GROUP 1 DISCUSSIONS**

- 4.1 National Grid indicated that it expected to use the Working Groups to develop charging changes in parallel to the development and assessment of the CUSC changes. The Working Group discussed the interaction with the charging methodologies and agreed a work plan. The Working Group discussed and agreed the Terms of Reference.

- 4.2 The minutes and relevant presentations of the Working Group meetings are available on the CUSC web site:

<http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandinngroups/>

- 4.3 To facilitate discussion the Original proposal included a strawman which National Grid presented<sup>2</sup> at the first meeting. The main aspects of the model are:

- Zonal access, tradable once granted
- Duration of the product is one week
- Users would apply 5 weeks in advance
- The application would be firm on receipt by National Grid
- National Grid would have one week to process applications and confirm results
- National Grid would not release a reserve price or volume information
- National Grid would release rights if it was economic to do so i.e. it would over-allocate access subject to the forecast costs of accommodating that access
- Payment would be pay as bid

- 4.4 The Working Group acknowledged that SO incentives would be fundamental in delivering a workable product. Whilst incentives are not directly a CUSC issue, given the impact on SO Release, the Working Group discussed the interaction of incentives and revenue flows.

- 4.5 National Grid clarified that when it released “short-term entry rights” via the SO Release, it was not removing existing parties’ access rights. Existing Users would be free to trade their transmission access and this was an important balance to National Grid pricing of SO release. On the day, National Grid would accommodate any shortage caused by the release of additional transmission access through locational trades or through Balancing Mechanism (“BM”) activity. It was acknowledged that this was a form of

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<sup>2</sup> <http://www.nationalgrid.com/NR/rdonlyres/0482ED98-20BD-47DE-8CB9-D09547D11316/26512/SOreleaseProduct100609.pdf>

facilitated trade between the existing TEC holder and the party receiving transmission access.

- 4.6 Working Group members were interested in exploring a number of varying characteristics:
- Buy back price
  - Varying timescales of release and product duration
  - Greater transparency
  - Fixed volumes and prices on offer
- 4.7 National Grid accepted that all of the above features could be developed. In developing the Original strawman these had not been incorporated mainly due to: (i) the complexity it added to the assessment of bids and impact on existing processes; (ii) concern about releasing information to the market that could increase balancing costs; and (iii) the inefficiency created through allocating zonal capacity prior to an auction.
- 4.8 It was asked if different types of SO Release could co-exist i.e. timescales of release or different characteristics. National Grid indicated that at this stage it would prefer to focus on a single solution, however this could include some features that were more flexible. It was recognised that SO Release interacts strongly with sharing, however some members of the Working Group indicated it would be preferable to keep SO Release separate.
- 4.9 Along with the enduring requirement to comply with the Grid Code at all times in the stated timescales, all SO Release would be capped by the Local Capacity Nomination (LCN).

### **Buy back in SO Release**

- 4.10 Buy back had been mentioned in the Original proposal as an option for the Working Group to consider. National Grid indicated that buy back would mitigate some risk and therefore could potentially facilitate the release of greater volumes depending on the structure of the buy back mechanism. Either National Grid could set the buy back price or it could be part of the tender process.
- 4.11 The Working Group agreed that buy back was an additional feature that could be beneficial, although should not be mandatory. The Working Group also discussed and agreed that Users were best placed to submit a buy back price rather than have a single price set by National Grid. The optional nature and the freedom to submit a high price was agreed to be included in the Original proposal.
- 4.12 National Grid indicated that presence of a buy back price made the assessment of bids much more complex and may limit the number of bids that could be processed or require additional resources i.e. a lower priced bid for access may be more acceptable if it was coupled with a lower priced buy back. National Grid's central assumption was that the initial assessment would be performed using existing tools and additional resources. New tools would only be considered if there was a realised high demand for the service. This reflected the experience following the introduction of other short term arrangements, LDTEC and STTEC.
- 4.13 National Grid agreed that the presence of an optional buy back would allow greater volume to be released and therefore should be included in the Original. However, whilst National Grid did not wish to limit the bidding

strategies unreasonably, it indicated that it would be pragmatic to set a maximum price that is consistent with the BM data validation rules for bids, the Working Group agreed.

- 4.14 This maximum price reflected the understanding that the buy back would be administered by Users agreeing under the CUSC to submit BM data consistent with their accepted SO bids (i.e. BM bids at the buy back price). The CUSC would require a mechanism for ensuring that any failure to submit data in accordance with offered parameters could be dealt with efficiently and did not impact on third parties. National Grid would monitor this process although would not initially expect to implement new systems.
- 4.15 The Working Group agreed that the Balancing Mechanism submission of buy back was an appropriate system for introduction. National Grid indicated that a Transmission Related Agreement (TRA) would normally be required to ensure that if the Balancing Mechanism bid did not match (or be less than, in terms of revenue flow to the User) that if action was taken on that Balancing Mechanism the money could be recovered. The Working Group agreed that a prerequisite for submitting a buy back bid in an auction should be that a TRA should be in place.

### **5 week ahead SO Release**

- 4.16 In the Original proposal National Grid indicated that the Working Group would discuss and agree timescales for the product and the auction process. The Original straw man was National Grid's preferred option that avoided significant changes to existing operational processes and limited the additional resources required to 1 or 2 engineers. National Grid indicated that more complex systems would require more resources and this would impact on implementation timescales.
- 4.17 National Grid was particularly concerned that processes and resources could be put in place and developed that may never actually be used. Therefore it was preferable to put in place a simple process initially that could be further developed if demand materialised on a regular basis.
- 4.18 Working Group members considered that National Grid resources should not unduly limit the scope of the proposal, although they recognised that the implications on resources and implementation timescales needed to be considered.
- 4.19 Working Group members asked for consideration of a 'closer to real time' product which would mitigate uncertainties in predicting generation matters 5 weeks ahead. This is particularly the case for intermittent generation. A one or two day ahead product might be more useful, for example, for intermittent generation (or other generation that was complementary to intermittent generation). Members of the Working Group also indicated that there were benefits to generators in having SO Release in longer timescales that would be more consistent with volume trades in the energy market.
- 4.20 National Grid indicated 5 weeks was chosen as it was shortly after OC2 data was received through the Grid Code. Under the Grid Code 2-49 day data is considered much more reliable than 7 to 52 week data. It was noted that whilst the OC2 data was a generator's expectation it was not firm.
- 4.21 The Working Group concluded that there was a benefit in developing both a longer term and shorter term strawman. The long-term straw man, CLDTEC,

is discussed later in the Consultation and is a derivative of the existing SO Release products (STTEC and LDTEC).

## 2 day ahead SO Release

- 4.22 Having considered a five week ahead product the Working Group considered a closer to real time strawman product, namely two days ahead. It was agreed that National Grid resources should not limit the offer of this service close to real time; this should be treated as a cost and implementation issue and covered in the cost benefit analysis. It was queried as to whether this product was tradable, National Grid confirmed that the intention was that all SO Release (that is the existing products, STTEC and LDTEC, plus the new products being developed with this CAP161 proposition) would be tradable, subject to trading arrangements within the CUSC.
- 4.23 The Working Group first discussed the development of a day ahead product. It was suggested that moving this close to real time would be a significant advantage for wind generators who would need to predict the availability of their primary fuel.
- 4.24 National Grid indicated that it currently uses Physical Notification (PN) data at the day ahead stage to assess and plan for on the day requirements. The PN data is used for checking generation margins, carrying out contingency security analysis, setting up the system topology, carrying out day ahead trades and calling reserve plant that is often on a long notice to synchronise. Any degradation in the quality of PN data, because parties were not aware if they had transmission access (and could therefore run) may have a negative impact on the production of this plan, potentially resulting in suboptimal commitments being made at day ahead.
- 4.25 In discussing whether an alternative might be day ahead rather than two days ahead, it was noted that forecast accuracy in predicting weather system movements may improve within multiples of days. Predictions for individual (weather related) renewable generators tend to see improvements in accuracy in the hours close to real-time. Therefore the benefit of moving to a day ahead, from two days ahead (when hours ahead is not on the table for now), were questionable
- 4.26 The Working Group Consultation specifically requested views on day ahead products. Some responses indicated nearer to real time is more useful, although others thought that it should be kept simple and thus avoid closer to real time. Following the Consultation, the Working Group discussed the responses and concluded that at this stage a 2 day ahead product would be acceptable to establish the principle of SO Release. Further developments could be considered by CUSC parties or a standing group following implementation.
- 4.27 The point was also made that PNs are updated with Final Physical Notifications (FPNs) and that for some Users (e.g. weather related renewable generators), additional information on access holdings would not improve the SO's ability to judge whether a plant will run (although under existing arrangements a User must have access to overrun). One Working Group member suggested that some generators would prefer to adjust their access holdings to accommodate their output, rather than adjust output to their access holding. However, for the avoidance of doubt, under the CUSC all generators will need to ensure that their output does not exceed their total transmission access holding; be that made up of the existing products, TEC,

- STTEC and LDTEC, or the new products being developed with this CAP161 proposal.
- 4.28 National Grid presented a strawman based on a two day ahead auction process. In this auction it was proposed that the transmission access block would be for one day. In summary the auction would be
- Zonal transmission access, tradable once granted
  - Duration of the product is one day (05:00hrs today (D) until 04:59hrs tomorrow (D+1))
  - Users would apply 2 days in advance
  - The application would be firm on receipt by National Grid
  - National Grid would process application and confirm result before the end of D-2
  - National Grid would not release a reserve price or volume information
  - National Grid would release rights if it was economical to do so i.e. it would over- allocate access subject to the forecast cost to accommodate that access
  - Payment would be pay as bid
- 4.29 As with the five week ahead model it was agreed that 2 day-ahead should have the option of buy back at a price that is submitted by Users. The process and limit for the buy back would be the same as for 5 weeks ahead, including the prerequisite requirement to have a TRA. Some Working Group members commented that the timescales and duration of the product (05:00hrs to 04:59hrs) were not aligned with the traded market products.
- 4.30 A number of respondents to the Working Group report indicated that Electricity Forward Agreement (EFA) days or Settlement Days may be a better timeframe for release. The Working Group discussed the issues raised in the responses but concluded that for initial implementation that Operational Day, 05:00hrs to 04:59hrs would be preferable as this aligned with most of the operational processes for Users and National Grid. Moving to EFA days would make implementation within near real time processes much more complicated.
- 4.31 The Working Group considered the timeline for the two day-ahead SO Release product. Two options were discussed. The first option, suggested by National Grid, would require CUSC Parties to submit bids by 09:30hrs on Day D-2 with National Grid notifying parties by 16:00hrs on Day D-2 if they had been successful in the auction. By 11:00hrs on Day D-1 Parties would have to submit their PNs (in accordance with the Grid Code). Had they received SO Release then Parties would have access, for 24 hours, starting at 05:00hrs on Day D0 (and ending at 04:59am on Day D+1).
- 4.32 Some members of the Working Group were concerned that Users would not have enough time following a 2 day ahead auction to process information and still meet the Grid Code data submission timescales. The Working Group also recognised that the product should be released as close to real time as practical without unduly impinging on day ahead assessment processes at this stage. The Working Group discussed a second option, whereby parties would be required to submit bids by 16:00hrs on Day D-2 with the SO notifying Parties by 08:00hrs on Day D-1 if they had been successful in the auction. By 11:00hrs on Day D-1 Parties would have to submit their PNs (in accordance with the Grid Code). Had they received SO release then Parties would have access, for 24 hours, starting at 05:00hrs on Day D0 (and ending at 04:59am on Day D+1). This would allow Parties to base their bids on the

most up to date information (including weather forecasts) late on Day D-2 whereas in the first option Parties would have to rely largely on Day D-3 data when preparing their bids early on Day D-2.

- 4.33 It was suggested, with the second option, that National Grid should run the auction overnight (to give Parties more flexibility and avoid Parties working overnight) to assess the auction bids and provide responses by 08:00hrs on Day D-1 (published, in the first option at 16:00hrs on Day D-2) in order to allow Parties to submit PNs by 11:00hrs on the morning of Day D-1.
- 4.34 National Grid indicated that adopting the second option, with its overnight working, could certainly not be implemented until April 2010 (assuming an implementation decision by 1<sup>st</sup> April 2009) due to the staffing requirements. With regard to the second option, National Grid did not see the merit of the overnight process when most Energy Management Centres (EMCs) are 24hr operations. However, Working Group members noted that (i) very few CUSC Parties had 24hr EMC operations and (ii) those that did, did not necessarily have 24hr planning functions to do the processing required (under the first option). National Grid indicated that it considered the efficient approach would be to introduce the first option. Subsequently, if there was a high take up and the benefits of second option (with overnight working by National Grid) could be better understood it should be considered then.
- 4.35 National Grid indicated that if option 2 was agreed that it would not work an overnight shift but would process the bids between 16:00hrs and 22:30hrs D-2, covering the same period of assessment time as in option 1. Nevertheless, facilitating an evening shift, along with the preparatory work would nearly double the resources required within operations.
- 4.36 The Working Group sought views on this issue in the Working Group Report. Following the consultation the Working Group considered the representation made. Within the Working Group, members had polarised views. To resolve the issue the Working Group voted and option 2 was the most preferable, submission of bids at 1600hrs D-2. The Working Group agreed to adopt this as the Original.

### **Timescales of the Original**

- 4.37 The Working Group agreed that both 5 week ahead and 2 day ahead auctions were consistent with the Original amendment proposal and so should be presented together i.e. the Original proposal is for auction at 5 weeks ahead for a weekly block of access plus an auction at 2 days ahead for a daily block of access. Submission of bids for the 2 day ahead auction would be by 16:00hrs on day D-2.

### **Commercial Limited Duration TEC (CLDTEC)**

- 4.38 The 2 day-ahead and 5 week-ahead access products cover short durations of up to seven days and the opportunity for price discovery is limited given the nature of the proposed auction (pay as bid). An alternative way to release short term access called Commercial Limited Duration TEC (CLDTEC<sup>3</sup>) was developed that covered longer durations and is based on the generator paying the short run marginal cost for access. The product was based

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<sup>3</sup><http://www.nationalgrid.com/NR/rdonlyres/A002FD71-D79D-41D1-8884-964D191C17B4/26733/ClDtec12.pdf>

around the existing LDTEC product. The main characteristics of the product are:

- CUSC form application where the User submits
  - Maximum weekly price per MW prepared to pay
  - Maximum capacity requested
  - Minimum capacity acceptable
- Assessed on a first come first served, along side and other applications
- The SO would have similar assessment times to TEC Exchange. The process for assessing CLDTEC is the same as LDTEC, whereas the additional constraint cost analysis is similar to the TEC Exchange process.
- The offer from the SO to Users is firm for 1 day
- Once accepted, the product is firm for the period.
- Duration: minimum of 1 week between 7 weeks ahead and the end of current financial year
- The SO could profile the volume on offer
- The charge would be associated with the offer, reflecting the forecast cost of providing the access (taking account of risks of changes to the forecast), objective of holding other parties whole.
- The product could be zonal or nodal

4.39 The timescales for assessing the product would depend on how long the requested period was. National Grid indicated that unlike LDTEC where if there was an increase in operational costs no further work was required, with CLDTEC:

CLDTEC application times		
Application Duration	Assessment time	Notification to User
Longer than 9 months	9 weeks + 1 Business Day	7 days +1 Business Day
Between 6 and 9 months	6 weeks + 1 Business Day	
Less than 6 month	5 weeks + 1 Business Day	

4.40 A generator would apply for access for a minimum of 1 week between 7 weeks ahead and the end of the current financial year, similar to the existing LDTEC application process. The assessment period for National Grid would be variable depending on the duration requested. National Grid would have flexibility to return a profiled capability, avoiding the need to reject the whole application. National Grid would indicate the cost to the generator after assessment; the generator would then choose whether to accept the offer.

4.41 National Grid's assessment of the CLDTEC product would be based on an assessment of the cost of providing the service. The assessment would be based on operational standards and would identify any potential constraint actions that may need to be taken. The forecast cost of these constraints would be borne by the applicant if the offer was accepted. Some Working Group members were concerned that it would be difficult for National Grid to accurately forecast the likely constraint costs up to 45 weeks ahead and so there was a danger that any excess costs would be socialised, increasing BSUoS costs for other Users.

4.42 To deal with potentially multiple applications the assessment would be based on a 'first come, first served' methodology. The product is tradable, subject to current or future trading provisions in the CUSC, and so (like existing products, STTEC and LDTEC, plus the new products being developed with this CAP161 proposal) would not be technology based.

- 4.43 The Working Group was concerned with the possible interaction between CLDTEC / STTEC and the 5 week ahead auction. The Working Group discussed this and concluded due to timescales there was no interaction between 5 week ahead and 2 day ahead SO release products with CLDTEC due to the six week minimum lead time.
- 4.44 In the case of possible interaction between LDTEC and CLDTEC applications it was considered that as they were both based on a first come first served principle they should be assessed in that manner. The later offer would be treated as interactive and offered on the basis that the preceding application had been accepted (until it was known otherwise).

### **Sharable SO release**

- 4.45 National Grid confirmed that if, at a future date, the sharing of TEC was permissible under the CUSC in timescales that allowed SO Release to be shared then it should be sharable, as once granted it is considered a firm product.
- 4.46 Any restrictions, such as buy back, associated with the initial allocation of SO Release would need to remain available to National Grid following any trade or sharing notification. This would require the recipient to have in place any prerequisite conditions for the SO Release as well as the donor e.g. the recipient would also need to have a TRA if SO Release has an associated buy back. The responsibility for payment and security would rest with the donor.
- 4.47 The Working Group noted that this would be easier if sharing was allowed within pre-defined zones with a 1:1 exchange rate than with node to node sharing arrangements. Node to node sharing of SO release would be possible, but if Users wanted a fixed exchange rate, then they would need to apply for this in advance since the assessment time to establish a fixed exchange rate is greater than 2 days.

### **Impact on existing short term products, LDTEC and STTEC**

- 4.48 National Grid had initially indicated that the existing LDTEC and STTEC products should be removed. They are rarely used and appear to have been introduced for very specific circumstances. Their continued existence in the code could detract from SO Release which is intended to be more flexible. Removing these legacy products could make the CUSC more efficient and simpler. Whilst some members of the Working Group agreed that LDTEC and STTEC should be removed, other believed that their continued existence would not cause a problem. Some members of the Working Group noted that with the development of new shorter term products that some CUSC Parties might wish to make use of the LDTEC and STTEC products in the future.
- 4.49 The Working Group discussed the merits of removing the existing products and concluded that there was little merit in removing LDTEC and STTEC at this stage. Therefore the Working Group proposal is that LDTEC and STTEC should remain within the CUSC. National Grid agreed this was a reasonable approach.

### **Reserve price and transparency of information**

- 4.50 The Original strawman proposal by National Grid limited the assumptions made by the SO and required generators to 'discover' price for a specific volume. An alternative approach discussed was that National Grid could provide more information prior to the auction i.e. National Grid publishes available volume and possibly even a reserve price. National Grid reiterated that volumes between the zones interact, and so in order to publish capabilities, significant assumptions were required.
- 4.51 The Working Group discussed that constraints, and therefore the volume and price of additional transmission access, was related to boundaries rather than zones. However, the Working Group understood that the use of zones has been proposed to provide a simpler basis for trading and they avoided the issue of purchasing access across multiple boundaries. National Grid indicated that publishing available volumes prior to an auction would require the SO to make major assumptions on how much capacity would be allocated in adjacent zones; leading to a less efficient outcome. Furthermore the capacity being released was 'economic' rather than spare, so the volumes involved would be dictated by the price of the bids submitted, not by the physical capacity of the system. This issue was raised again in the Working Group consultation and the Working Group agreed that at this stage available volume and forecast price would not be published given the concerns that this information would drive the market rather than respond to it i.e. National Grid forecast becomes the market reference price. The Working Group felt that this was an issue that should be discussed post implementation when participant behaviour was better understood.
- 4.52 It was also suggested that National Grid should publish buy back volumes. National Grid indicated that all volumes and prices were published in the Balancing Mechanism shortly after real time. The Working Group agreed that the information would be available to participants if they required it and setting up systems to correlate and publish the data were not necessary given the expected value of the data.
- 4.53 The Working Group discussed that whilst the ultimate volume was economically defined it would be useful for a potential bidder to know how much spare physical capacity was available. National Grid suggested that whilst this information may be useful to a generator in bidding for SO Release, it could reduce the revenue recovered through SO Release and hence returned to consumers. The point was made that the aim of SO release was to improve access not reduce BSUoS revenue. The release of such sensitive information could also influence bidding strategies in the BM or trading with National Grid. This could increase the overall cost of operating the system.
- 4.54 National Grid noted that to a greater or lesser degree that transmission system capacity would only be known in real time. This capacity is not just related to system availability but also displacement and operation of both generation and demand. The Working Group discussed that making more information available may not be useful to all players, e.g. this may disadvantage small players (compared to larger players that can make more use of the information).
- 4.55 In terms of reserve price, National Grid indicated that it would be based on National Grid's forecast of generator pricing in the BM, along with the forecast system replacement cost (market price on the wider system). This is very different to a release of a reserve price in longer term auctions where this represents the cost of assets i.e. the incremental cost of capacity. In

small zones National Grid would be essentially telling individual generators what it expected them to bid in the BM and therefore presented a clear arbitrage opportunity. National Grid did not believe that provision of such information would reduce costs, in fact the reverse was more likely. It was also noted that a reserve price may be useful in managing revenue surpluses created through an auction. National Grid indicated that revenue surpluses would offset overall operational costs and therefore returned to all Users through lower BSUoS. Other members of the Working Group suggested that this would increase generation costs that would ultimately feed through to energy prices paid by consumers.

- 4.56 However, other members of the Working Group considered these as regulatory issues, and that the potential for more efficient use of the transmission system outweighed the potential negatives. Ofgem noted that whilst they have powers to deal with market abuse, these were not envisaged to be used regularly and so proposals should not deliberately create inappropriate incentives.
- 4.57 The Working Group agreed that after the auction all information and the result of the auction should be published, as soon as reasonably possible, including all successful and unsuccessful bid information (location, volumes and prices (bid and buyback)). This approach would also apply to CLDTEC applications. For CLDTEC this would be after the applicant had accepted or refused the offer. Publishing this information should support parties in better preparing future bids, although the Working Group noted that there were still significant uncertainties.
- 4.58 Considering the responses to the Working Group consultation the Working Group reaffirmed that all information on successful and unsuccessful bids should be published. Furthermore, this should be on an individual Power Station basis, which allows other parties to make the linkage with Balancing Mechanism activity.
- 4.59 The Working Group agreed that National Grid should endeavour to publish auction information 1 hour after the closure of the auction. The platform for publishing the information will be developed during implementation.

#### **Timescales 2 day ahead process**

- 4.60 As noted above, there were two options for the auctions which would be run every day (week days and weekends) apart from Bank Holidays (E+W only). Access granted under the auction would be for a daily block from 05:00 today (D) till 04:59 tomorrow (D+1) - to align with settlement timescales).
- 4.61 An alternative would be to consider limiting auctions to normal business days only with an auction for a three day block of access at the weekend. This would reduce the amount of resource required to provide the service and assist in the timely implementation. If the uptake for SO Release was significant consideration could be given to going to a seven day a week auction. Annex 8 shows the timescales / process for these options.
- 4.62 The Working Group agreed that the 2 day ahead auction should take place on Business Days only i.e. that on Friday the auction will be held for Sunday, Monday and Tuesday. At this stage it was not clear if there was enough of a benefit to support 7 day working. The Working Group agreed that this is an area that could be reviewed shortly after implementation when the benefits of moving to 7 day working could be better identified.

4.63 The detailed processes for the auction would be included in the SO Release Methodology Statement.

**5 week ahead auction process**

4.64 Auctions would be run 52 weeks of the year for a weekly block of access. On the Monday of the week access has been granted, transmission access would start at 05:00 and finish at 04:59 on the Monday of the following week.

4.65 The auction process would be Wednesday to Wednesday to align with OC2 submissions. If Christmas Day, Boxing Day or New Years day falls on a Wednesday then transmission access is bid for on the next working day with the result of the auction published seven days in arrears. The Users access will be valid on the following fourth Monday after the notification of the bid results. The table below demonstrates this:

Week 1							Week 2							Week 3						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
		<b>A</b>							<b>B</b>											
									<b>A</b>							<b>B</b>				
Week 4							Week 5							Week 6						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
																<b>C</b>				
Week 7							Week 8													
M	T	W	T	F	S	S	M	T	W	T	F	S	S							
							<b>M</b>													
<b>D</b>																				
<b>C</b>							<b>D</b>													

- A** – Generators submit bids for access by 16:00hrs
- B** – National Grid publishes results by 16:00hrs
- C** – If granted, access starts from 05:00hrs
- D** – Access ends at 04:59hrs

4.66 The detailed processes for the auction would be included in the SO Release Methodology Statement.

**The process for applying for and recording contractual holding or access rights**

4.67 National Grid indicated that whilst it was envisaged that a web based application system was preferable it may be more efficient to introduce the arrangements with emailed application forms. Only when this process became unmanageable would an automated system be considered.

4.68 Users would submit their bids by email or fax, National Grid would acknowledge receipt as soon as possible. Once the auction is concluded National Grid would email or fax each recipient in turn informing them of the outcome. The order of notification would be the same as that which National Grid received the bids.

4.69 National Grid intended to resource for in the region of 10 bids per day on 2 day ahead SO Release and 10 bids per week for 5 week ahead SO Release. Given the less restrictive timescales for CLDTEC it was envisaged that this could be dealt with on an ad hoc basis. In the event that National Grid

reviewed more bids it would perform an initial shortlist (in economic order based on an initial assessment by National Grid) and process bids in that order. If time allowed, more bids would be processed. For the 5 week ahead SO Release auction, bids would be submitted by 4pm on the application day. For 2 day ahead auctions, all bids received before 10am National Grid will be assessed in economic order. Bids received after this time may be considered, but it would be in time- received order and at the discretion of National Grid. It was noted that if National Grid was incentivised correctly it would manage more than 10 bids if they were economic.

- 4.70 Under default conditions, e.g. failure of email, or submission error, National Grid would process as many applications as possible. All bids received before closure time (4pm 5 weeks ahead and 10am 2 days ahead) would be treated in the normal manner, assessed in economic order based on an initial assessment by National Grid. All later bids would be assessed in time received order. If in processing applications there are potential errors, National Grid will use its reasonable discretion to contact Users and resolve the issue. If, following these discussions, a bid is considered as incomplete, in National Grids reasonable discretion, it will be rejected. National Grid will immediately inform the affected party.
- 4.71 National Grid would not be obliged to accept bids, but would do so in accordance with licence principles. The detailed processes not covered in the CUSC would be included in the SO Release Methodology Statement.

#### **CLDTEC process**

- 4.72 The process for obtaining CLDTEC is initiated by an application to National Grid. The timescales for the application and notification of results to the User were discussed above.
- 4.73 The application will contain a Max MW volume with a start and end date (starting on a Monday (05:00hrs) and ending on a Monday (04:59hrs)) and the maximum weekly cost in £/MW/week. National Grid will assess the application and provide the offer to a User based on the forecast cost such that any weeks where the maximum weekly £/MW cost was exceeded would have no availability (or reduced availability) offered. The Generator would have 1 business day to accept or reject the offer.

#### **Credit / security and payment**

- 4.74 The Working Group discussed the timescales for payment of each of the proposed products under CAP161 namely (i) 2 day ahead SO Release, (ii) 5 week ahead SO Release and (iii) CLDTEC.
- 4.75 The Working Group agreed that for 5 week ahead SO Release, security and payment should be based on existing TNUoS and LDTEC arrangements. This minimises new processes and systems required for implementation. In terms of security, in principle generators would have two options:
- (1) Full payment prior to real time
  - (2) Post security for charges before real time
    - ♦ For the avoidance of doubt, either of (1) or (2) would need to be provided by the generator, at the agreed time.
- 4.76 The Working Group agreed that failure to do either (1) or (2) before day ahead would invalidate any bids received from that generator. It also discussed that to avoid parties blocking transmission access for others that

failure to pay or post security under 4.52 above will be taken into account in the assessment of future bids.

4.77 The principles of the process for providing payment / security for both 5 week ahead SO Release and CLDTEC were agreed in the Working Group to be as follows:

- ◆ Tariff agreed in advance
- ◆ Billing at beginning of month for the whole month
- ◆ Payment on 15th for all access in that month
- ◆ Security required for 1<sup>st</sup> to 15<sup>th</sup>, (the period access will have been used but not paid for)
- ◆ Security can be posted weekly, or at beginning of period (at least 1 business day before)
  - ◆ Users are responsible for ensuring sufficient security in place
  - ◆ National Grid will monitor, and reject bids for transmission access where a User has failed to pay or post security in time
- ◆ For a four week period, security posted (at least)
  - ◆ By 1<sup>st</sup>, post access for 1st week
  - ◆ By 7th post access for 2nd week
- ◆ 5th week paid for in following month
  - ◆ Security posted within month i.e. from when used until when paid for (1 business day before)

4.78 The last week of the 5 week ahead auction cannot always be billed at the beginning of the month (as the invoicing process needs to start before the auction has closed). For the 5 weeks ahead auction this is solved by adopting a 2 weekly billing process i.e. at start of week 1 bill for following two weeks, payment at the end of that billing period, then repeat this process for the next two weeks from (start of week 3). CLDTEC remains a monthly billing process the same as LDTEC.

4.79 For the 2 day ahead SO Release product the Working Group agreed that the process should be as close to that of BSUoS as possible. Initially it is envisaged that National Grid would carry this process out, but during implementation or if large volumes are experienced following implementation, National Grid would consider similar arrangements to BSUoS, if it was more efficient and economical at the time i.e. use of third party to administer the billing and payment process.

4.80 The detailed process agreed by the Working Group for 2 day ahead SO Release was (note the timescales should be consistent with BSC / BSUoS timescales, the days shown below are approximate, the exact days will follow the Settlement calendar):

- ◆ Daily charge, derived from the auction
- ◆ Payment would be 29 days in arrears (consistent with BSUoS / BSC)
  - ◆ By Direct Debit or pre payment
- ◆ Security required if SO Release charges are not prepaid
- ◆ Security to be in place 1 business day before access day (expect most parties to have rolling security cover in place as with BSUoS now)
- ◆ Billing will be on 1<sup>st</sup> /15<sup>th</sup> month, business days only
  - ◆ Billing based on best data available at the time
- ◆ Final invoice sent after the event

4.81 For example, for auction on 1<sup>st</sup> of month:

- ◆ Access granted for 3<sup>rd</sup> of month (from 05:00hrs on 3<sup>rd</sup> till 04:59hrs on 4<sup>th</sup> of month)
- ◆ Security in place on 2<sup>nd</sup> of month
- ◆ Billed on 15<sup>th</sup> of month
- ◆ Payment approximately 17 days later

For auction on 15<sup>th</sup> of month,

- ◆ Access granted for 17<sup>th</sup> of month (from 05:00hrs on 17<sup>th</sup> till 04:59hrs on 18<sup>th</sup> of month)
- ◆ Billed 1st of next month
- ◆ Payment 15 days after billing date, approximately middle of following month

- 4.82 Annex 9 of this Consultation illustrates how the settlement process would work for the 2 day ahead auction.
- 4.83 It was noted that the initial BSUoS advice note issued after the Settlements II run would not include SO Release receipts under this process. National Grid would request Logica to annotate the Settlements II run notice accordingly. The BSUoS billing for the Settlements SF run would include adjustments due to SO Release. Including SO Release in the BSUoS advice notification would involve considerable systems and process changes. This was considered disproportionate at this stage, not knowing the volume / revenue that will be involved (that depends on take up). If SO Release volumes / revenues were high, and therefore had a significant impact on the accuracy of the BSUoS advice note, then system changes would be considered at that time.
- 4.84 A respondent to the Working Group consultation suggested that National Grid should investigate insurance cover for security rather than requesting it from Users. The Working Group considered this suggestion but agreed that it was not appropriate to spread security requirements over all Users and so agreed that an individual should securitise their own risk of default by themselves.

### **Consistency with European regulations**

- 4.85 SO Release is provided via an open, non-discriminatory, competitive process where all the details about the process, methodology and results would be published. Therefore the Working Group considered the Original and the candidate alternatives were consistent with the broad aims of European energy and competition regulation that facilitated open non-discriminatory markets for all parties.

### **Economic release criterion**

- 4.86 National Grid indicated that the Original proposal was based on the principle that the Users would bid for transmission access and that the SO would accept the most economic bids and include each in the background for the assessment of the next. The SO would move on to the next bid, and so on. This process would continue until the point at which the price offered did not cover the forecast cost of accepting the bid.
- 4.87 Members of the Working Group noted that this process maximised auction revenue and not transmission access released. National Grid indicated that it believed that the process maximised the benefit for consumers from releasing transmission access, whilst retaining a reasonable risk margin. In assessing the bids, National Grid would assume that the SO Release transmission access could be transferred between generators (by trading, or potentially in the future sharing) anywhere within the zone (if zonal) or

between certain nodes where exchange rates have been accepted (if nodal). It was noted that the zonal nature of the Original amendment restricted the volume of transmission access National Grid could release.

- 4.88 National Grid noted that the risk profile increased further from real time and that five weeks had been chosen as a pragmatic time which balanced the volume and the price which National Grid could release, whilst maximising transmission access based on a relatively fixed outage plan and a reasonable assumption about Grid Code availability submissions. Closer to real time there is not any firmer information from generators until Gate Closure, therefore the risk profile remained reasonably flat until very close to Gate Closure. It was accepted that other influencing factors; such as plant failure and demand; did become more certain as timescales approached real time. National Grid indicated that the most significant factor in costing and volume of SO Release was expected to be generator pricing.
- 4.89 The Working Group considered whether there could be different objective functions in releasing transmission capacity. For example, (i) to clear the highest bid first, or alternatively (ii) to take all bids providing that the overall SO costs were covered. In these two examples it was noted that whilst the volume was greater in the second example, there was a form of cross subsidy and the value of the transmission access was reduced. It was noted that a buy back feature would complicate the assessment of bids.
- 4.90 The Working Group also discussed whether the auction could be two way, i.e. Users bidding in transmission access (that they wished to sell, via the SO) as well as bidding for transmission access (that they wished to buy, via the SO). The central function would then optimise the trade between Users and release additional capacity. Concern was expressed that this approach confused SO Release and sharing. However, it was noted that some generators might not wish to develop their own systems/processes etc. (in order to trade their transmission access to another generator, in the short term) and may prefer instead to utilise the SO to facilitate such a trade.
- 4.91 It was envisaged that the earlier mentioned methodology and statement of process would also cover the principle adopted by National Grid in assessing the bids.
- 4.92 The Working Group discussed the examples presented in Annex 6. The Working Group acknowledged that methodology 5 provided the highest volume of SO Release, but were concerned by the use of revenues from high priced bids to fund bids that would have otherwise been uneconomic. The Working Group noted that the cross subsidy between bids would impact on Users bidding strategy. It was also discussed that it would have unintended consequences on the price of access very close to real time (overrun pricing if accepted). Considering the implications on other access products / options close to real time the Working Group agreed that the cross subsidy could not be justified.
- 4.93 In terms of the primary objective function the Working Group discussed whether it should be on price or volume (example 1 or 4). The Working Group were concerned that maximising volume would make it overly complicated for Users to construct bids, agreeing that price alone was much clearer, for the Users and National Grid. The Working Group noted that other access products / options could work alongside SO Release to maximise volume, and a maximum volume function in SO Release could undermine the other access products i.e. Overrun. The Working Group noted that once an

unacceptable price was accepted this did not stop the process, but the SO would assess the next highest price offer in another zone (with a lower constraint price). The Working Group also agreed that the assessment of SO Release, including the assumed construction of the forecast costs, should not take account of overrun (should it be agreed) as this would have unintended consequences on the volume of SO release accepted.

- 4.94 The Working Group concluded that the SO Release methodology should have an objective function based on price alone. The surplus from the auction would feed into BSUoS as described in the revenue diagrams. It was noted that all parties liable for BSUoS were taking the risk on the accuracy of the SO forecast and that recirculation of surplus revenues in this manner was consistent with adopting that risk.
- 4.95 Annex 7 describes the principles of an SO Release Methodology Statement process. The Working Group agreed that the governance of the methodology should be open. The Working Group agreed that it should ideally be part of the CUSC, however recognised that it would not be practical to develop it in Working Group timescales. The Working Group agreed that National Grid should consult on the methodology, Users should be able to raise changes, it should be kept under review and the ultimate acceptance should be by Ofgem.
- 4.96 National Grid agreed to consider how it could develop the governance model so that the methodology could, for all intensive purposes, be regarded as part of the CUSC. National Grid is proposing that the development of the methodology be a transitional obligation on National Grid, which ultimately would bring it under CUSC governance.
- 4.97 In response to the Working Group consultation, the Working Group also considered the issue of 'use it or lose it'. The product would provide firm access with compensation if being used. Within the GB framework Users have financial rather than physical rights (have the right to compensation if usage is restricted). Therefore the access right is not removed if it is not used, but there is no compensation if not used. Therefore the SO can over allocate or an individual User can 'overrun' (subject to CAP162) and this provides equivalent protection to wider users and prevents hoarding.
- 4.98 The Working Group also considered if SO release should be limited to a percentage above TEC. The Working Group considered that it would be uneconomic to restrict the use of short term products. This would give the long term product an inflated value and so should not be included.
- 4.99 The Working Group also considered if a 2 way auction could be implemented. It was noted that National Grid could purchase access back from Users through either a forward trade or the Balancing Mechanism. The Working Group considered this a significant step beyond SO release as proposed, but suggested that the CUSC Panel or a standing group could consider this issue separately in the future

### **The impact on System Operator costs, internal and external**

- 4.100 National Grid indicated that it expects to use existing processes and systems to facilitate the auction. There would be an additional resource and training requirement to implement both the 5 week ahead and 2 day ahead auction processes. There are three choices as to what might be involved. The first is undertaking the five week ahead and 2 day ahead auction process every

(365) day. This is likely to require in the region of 4 to 5 Full-Time Employee's (FTEs) depending on the volumes involved and National Grid is considering how to best manage implementation and ongoing resource requirements. The second choice is undertaking the five week ahead and 2 day ahead auction process but on business days only (not weekends and Bank Holidays, when bids for transmission access for those days would need to be submitted in advance). This would reduce the requirement in the region of 2 to 4 FTEs. The third choice is to undertake the five week ahead auction process for 365 days a year (as per the first choice) and the 2 day ahead auction process overnight for 365 'days' (i.e. nights) a year which is estimated to require 7 FTEs in operation. Further background on the reason for overnight working, by National Grid is discussed above.

- 4.101 Employing suitably qualified staff and then training them could present a delay to implementation (assumed to be 1<sup>st</sup> April 2010). National Grid recommends initial implementation on business day (normal working hours); i.e. the second choice above. Following implementation, and if there is a high enough demand for the service, expansion to non-business days and extended day working could be considered; i.e. the third choice. Some members of the Working Group noted that with a decision on CAP161 likely to be made (by the Authority) by June 2009 that implementing the third choice should be possible 10 months later (in April 2010).
- 4.102 National Grid noted that there would be additional resources required by them for settlement and managing security. The design of the payment process as weekly billing limits the overall resourcing requirement, however payment would be on a daily basis. Combined with the need to monitor security it is envisaged that another FTE would be required, subject to volumes / revenues. In the future, with large volumes / revenue it may be more efficient and robust to consider the full automation of the security and payment process, however this is not considered to be economic for initial implementation in April 2010.
- 4.103 There will be changes required to National Grid's settlement system to facilitate billing and managing BSUoS interaction. Initially these would be largely managed manually until it was clear of the ongoing volume involved. However there is expected to be some developments required for implementation. Initial assessment indicates that in order to implement daily payment by April 2010, required for 2 day ahead SO Release, National Grid would need to start a detailed function assessment by December 2008.
- 4.104 During the implementation phase National Grid will carry out a full impact assessment (including consulting CUSC Parties and Ofgem for their views) and determined if other alternative arrangements (e.g. outsourcing settlement) would be more economic.

#### **Revenue flows and SO incentives**

- 4.105 The Working Group discussed the revenue flows involved with SO Release. Appendix 6 describes the model the Working Group envisaged. This highlights where existing revenue streams would be expected to change and where revenue associated with SO Release is expected to feed in.
- 4.106 National Grid indicated that removing SO release operational costs from BSUoS would be subjective. The Working Group agreed that it was reasonable to assume that all funds associated with SO Release would be netted in BSUoS.

- 4.107 All parties who contribute to BSUoS would be exposed to the difference between SO Release revenue and the actual additional operational costs. National Grid indicated that based on the principles of SO Release it expected that the net difference between SO Release revenue and the actual additional operational costs to be generally positive in favour of all parties liable for BSUoS. However, as with any ex ante charging arrangement a positive outcome could not be guaranteed – this might especially be the case with CLDTEC given the longer-term nature of the product being offered.
- 4.108 It was recognised that at a high level the proposed targeting of operational costs changes the 50:50 split of BSUoS revenue. Generation would pick up a greater share of the cost of BSUoS proportional to the take up of SO release (and any other target short term prices). However this was considered appropriate as the Generation was directly causing these additional costs through accessing the system in advance of, or instead of sponsoring long term investment in the transmission system.
- 4.109 The Working Group recognised the importance of incentives on National Grid to release and also manage the consequences of the released access, and that these should ideally be consistent. The Working Group noted that as National Grid already had an incentive scheme to minimise BSUoS there may be little need for an additional arrangement specific to SO Release. National Grid suggested that the SO incentives under BSIS would need to be reviewed to ensure the incentive was appropriate and consistent with operating the system efficiently. National Grid indicated that it would progress any incentive arrangements with Ofgem and the industry through the appropriate forum prior to implementation of the proposals.

#### **A cost benefit analysis, including market impacts and the cost of carbon<sup>4</sup>**

- 4.110 The Working Group noted that the undertaking of an impact assessment across the six transmission access CUSC amendment proposals (CAPs 161, 162, 163, 164, 165 and 166) would facilitate comparison of the mods. It also agreed that such an assessment would benefit from a quantification of the additional amount of renewables facilitated by each proposed CUSC amendment and the associated cost benefit changes.
- 4.111 Unfortunately, this would not be possible if each CAP had to be assessed (under the CUSC) on its own merits. However, the Working Group did undertake a cost benefit analysis for CAP164 which included considering (i) market impacts and (ii) the cost of carbon. However, it has not been possible, in the timescales, to undertake a cost benefit analysis for CAP161 and it is a task that the Working Group assumes will be undertaken by Ofgem as part of their Regulatory Impact Assessment of the proposals.
- 4.112 At a high level it was noted that if SO release facilitated a very small amount of access without investment, indicating more efficient use of existing assets, a positive cost benefit was relatively easy to demonstrate. For example, considering on NGET unit capital expenditure cost allowance for transfer from Scotland to England of £320,700 per MW, avoiding just 100MW of reinforcement through SO Release would save approximately £3m per annum in capital expenditure costs. The working group considered that in the

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<sup>4</sup> Taken account of Ofgem guidance with respect to:  
<http://www.ofgem.gov.uk/Licensing/IndCodes/Governance/Documents1/Code%20objectives%20letter%20-%20final%20for%20external%20publication.pdf>

short term, where the restriction was the pace at which transmission capacity could be constructed, that the cost or saving of transmission infrastructure should not be part of the analysis.

- 4.113 Considering this alongside a moderate implementation and enduring cost, it is expected that very small volumes of plant using SO release in favour of long term firm access would be required. Furthermore, even if there is no use of SO release, the flexibility and choice CAP161 provides underwrites investment through Users signal for long term investment.
- 4.114 It was also noted that the main implementation cost was production of daily settlement, and this was likely to be shared with other products, in particular overrun. Whilst there is a resource implication, even with small volumes, long term resources would only be committed if sufficient demand develops. Further developments such as a more robust auction system would only be taken forward if there were sufficient volumes requesting SO release
- 4.115 This product is not targeted at low carbon technologies, but considering the developments in the generation industry any additional capacity released will benefit renewables, either directly or indirectly. Many Working Group members and respondent to the Working Group consultation did not believe that this was a viable long term product for new or renewable plant and so would not directly support connection. However, if existing conventional plant utilises SO Release this will indirectly benefit newer plant by releasing access. Newer plant is expected to have a lower carbon emissions per unit of output even if it is not termed as renewables e.g. a new CCGT has nearly half the emissions of older conventional coal. The magnitude of this indirect effect is related to other amendments current being progressed on Users Commitment and initial allocation through auctions, which may both facilitate the efficient transfer of long term access to newer more efficient and / or low carbon plant, leaving existing conventional plant the option of operating within a more flexible short term access market. This arrangement would be mutually beneficial if the conventional plant operates as 'back-up' for newer intermittent plant.

#### **Efficient investment signals (for generation, transmission & interconnectors)**

- 4.116 National Grid indicated that whilst it would not expect to make investment decisions directly based on SO Release signals, it expected Users who were exposed to the short term costs to make an efficient judgement about whether to remain exposed to these or to seek long term transmission access priced around the cost of asset investment. Therefore the presence of a viable alternative to long-term transmission access improved the value of long term transmission access as a driver for investment planning.
- 4.117 Some Working Group members doubted if the link between longer term transmission access purchased and short term operational costs was as strong as suggested, when considered from a User's perspective. Users had many risks and in order to develop and operate a viable generation business, firm access was a virtual prerequisite. Under this scenario, Users would always request long term access in preference to SO release but would use the latter and other potential options (e.g. Overrun – CAP162) to optimise their physical positions.
- 4.118 The Working Group concluded that whilst it was recognised that in general, long term transmission access would be preferable, from a generator perspective, that at the margins (above a certain output or towards the end of

plant life) SO Release may offer a limited alternative to the longer term product, particularly where there were 'sunk' transmission assets.

### **Offshore arrangements**

4.119 The Working Group considered that there was no barrier to SO Release for offshore arrangements. However, given that SO Release is largely based on assets already being there, it would not be a viable option for a project that required investment in assets, particularly where these were offshore related 'spurs'.

4.120 In summary, there is no impediment for offshore parties utilising the SO Release products. However, given the stage of development of offshore networks, SO Release is not considered a viable alternative to long term TEC.

### **Applicability to embedded generation**

4.121 The Working Group considered that SO Release was open to all CUSC Parties. The Working Group did not identify any specific issue with embedded generation, subject to the embedded party being a CUSC party, and having parallel arrangements in place with its DNO, the Working Group did not identify any specific issue with embedded generation.

### **Impact on the demand (exit) arrangements**

4.122 The Working Group did not identify any impact on demand arrangements other than the possible implication on revenue flows previously discussed in this report.

### **Impact of short term access on existing CUSC Parties long term rights**

4.123 The Working Group considered the issue of the existing transmission access rights that CUSC Parties have. The Working Group noted that Ofgem had provided some 'Observations on the Nature of Access Rights' (at the 28<sup>th</sup> July 2008 meeting) to the TAR Working Group 2. The majority of (CAP161) Working Group members believed that they currently had 'evergreen' transmission access rights, which they defined as rights that are automatically renewed each year given payment of TNUoS. The Authority representative stated their belief that rights under the CUSC were unclear, and that there are features of the existing rights which suggest they are not evergreen. Some Working Group members noted that whilst the rights currently have evergreen characteristics, such features could be changed by making an amendment to the CUSC (although not all such members believed that this would be appropriate). The (CAP161) Working Group considered, without prejudice to those rights, that if there was any temporary removal of any transmission access right, as a result of SO Release, that the generator affected would be in receipt of a Bid/Offer Acceptance (or Pre Gate BMU Transaction etc.) which would compensate them for their short term loss (whilst it was 're-allocated', via the SO Release products, to another generator) of their transmission access right.

### **Impact on Security of Supply**

4.124 The Working Group considered that providing more flexible short term arrangements was likely to improve overall access to the system so would have positive impact on security of supply.

- 4.125 Subject to the assumption in relation to improving the investment signal and discussion in different forums on the impact on the SQSS, the Working Group did not identify any net negative implications on security of supply in the longer term.

### **Impact on Maintenance of the Reliability, Safety & Operation of the Grid**

- 4.126 National Grid considered that the flexible and non mandatory nature of SO Release had no negative impact on the reliability, safety and operation of the Grid. Indeed the two way flexibility of the SO Release is likely to provide the operators with additional flexibility. The Working Group accepted this view from National Grid.

### **Limiting participation to physical players**

- 4.127 The Working Group considered that the timescales involved with SO Release did not best suit involvement of non-physical players. Operating within real time, the additional complexity and uncertainty involved with including non-physical parties was considered as having a negative impact. In principle, the Working Group did not see why, once established, that SO Release could not be extended to non-physical parties, providing the wider CUSC framework (and associated law) permitted the presence of non-physical parties on equal terms as physical players. However in the short term it was seen as overcomplicating SO Release and possibly delaying implementation (such as introducing a new licence and incorporating a new party in the CUSC). Therefore the changes associated with SO Release will be limited to CUSC Parties (which are, currently, limited to physical players only).

## **5.0 SUMMARY OF WORKING GROUP 3 DISCUSSIONS**

### **Generation zoning**

- 5.1 National Grid recommended that in light of the proposed suite of CUSC Transmission Access Review Amendments (namely CAPs 161, 162, 163, 164, 165 and 166), it might be appropriate to move away from the existing TNUoS generation zones and develop a set of zones which better facilitate the release of transmission access via SO Short-term Entry Rights (CAP161), Entry Overrun (CAP162), Entry Capacity Sharing (CAP163), Long-term Finite Rights (CAP165) and Long-term Entry Capacity Auctions (CAP166). To help facilitate this work on zones the CUSC Amendment Panel established a separate group, known as Working Group 3, to assist Working Groups 1 and 2.
- 5.2 At the second meeting at Working Group 3 on 27th May 2008, National Grid introduced two separate generation zoning options in the form of: (i) a Scenario-based Zoning Methodology (“SZM”); and (ii) a Network-based Zoning Methodology (“NZM”). Both methodologies were proposed on the assumption that:
- local reinforcement works required to connect a generator to the MITS (and therefore make use of transmission capacity) are achievable;
  - the resulting zones facilitated TEC exchanges within zones on a 1:1 basis; and
  - limits (MW) at points of connection can be ‘aggregated’ in terms of their effects on wider transmission system constraints.

### **Scenario-based Zoning Methodology (“SZM”)**

- 5.3 The SZM considered the actual boundary constraints of the transmission system and followed the process of: (i) identifying candidate boundaries; (ii) identifying critical circuits for these boundaries based on the required transfer level specified within the GB SQSS; (iii) the calculation of sensitivity factors at all nodes with regard to critical circuits; and (iv) the grouping together of those nodes which have similar sensitivities.
- 5.4 In practice, candidate boundaries were identified manually based on the operational boundaries of the transmission network. The worst critical contingency and circuits were then identified against the indicative boundary. Sensitivity Factors were then calculated for each node by ‘injecting’ an additional 100MW of generation at each node within a zone and calculating the resultant flows on each of the relevant critical circuits under a contingency. Those nodes of Sensitivity Factors within a range of 20 percent were then grouped together.
- 5.5 The advantages of the SZM were observed as being that:
- maximum tradable transmission capacity within a zone could be derived from Sensitivity Factors for the winter peak scenario;
  - the grouping of nodes of similar Sensitivity Factors into zones gives greater clarity and certainty to zonal transmission access; and
  - additional constraint costs are minimised because actual transmission network constraints are honoured.
- It was also noted that the publishing of nodal Sensitivity Factors leads to an indicative economic optimisation for TEC exchange.
- 5.6 The disadvantages of the SZM were noted to be that critical circuits tend to ‘move’ in meshed networks and that they are scenario and contingency dependent. Additionally, it was noted that zones developed under the SZM are unlikely to remain stable over a number of years due to changes to the transmission network and the demand and generation background.

### ***Network-based Zoning Methodology (“NZM”)***

- 5.7 The NZM did not consider actual transmission boundary limitations, but worked on a ‘hub and spoke’ principle, considering the change in voltage angles resulting from the exchange of TEC at individual nodes as the parameter for determining relevant zones. It was identified that under the NZM, zones might be considered to be less likely to change so long as the network topology and impedance of the transmission network did not change significantly. And, where the SZM studied a few ‘snapshots’ of the transmission system, the NZM did not rely on a specific scenario being studied, hence providing more stability to the zones in the long-term.
- 5.8 Limitations of the NZM were identified to be that the choice of hub-node used to determine the zones was critical to the zonal definition and likely to have a significant impact on a generators ability to exchange transmission access rights. Additionally, it was noted that actual transmission system constraints might not be fully reflected.
- Working Group 3 discussion*
- 5.9 Working Group 3 noted that a significant amount of further information and analysis of both options was required, including the estimated total effect on transmission constraints, the stability of zones and the ‘liquidity’ of capacity exchange.
- 5.10 Working Group 3 questioned as to whether it would be possible to overlap zones in the NZM, or even have a unique zone for each node to maximise

tradability. Concern was expressed however, regarding the impact of sequential trades from zone to zone and the potential impact of this on constraint costs.

- 5.11 In addition to the SZM and NZM, Working Group 3 questioned the possibility of the publication of node to node exchange rates in preference to zoning. The presentation slides regarding the SZM and NZM can be found on the National Grid Codes website.<sup>5</sup>

#### **Indicative generation zones**

- 5.12 At the fourth meeting of Working Group 3 on 16<sup>th</sup> June 2008, National Grid presented some indicative generation zones based on both the SZM and NZM. Zoning for regions that are radial in nature was relatively simple, the zoning process however, was much more difficult due to the presence of loop-flows.
- 5.13 It was noted that in the short to medium term (circa 2-3 years), National Grid (as the GBSO) can arrive at larger generation zones which may better facilitate the exchange of transmission access rights due to the greater certainties associated with background conditions and operational measures. In the longer-term however, it was considered that smaller generation zones would be required to cater for increased uncertainty.
- 5.14 In general, a number of key issues and findings were noted:
- Generation zones were generally different from the existing TNUoS generation charging zones.
  - Short-term zones can be much bigger than the long-term zones, and they can change from time to time.
  - In a meshed network, the effect of loop-flows may increase the percentage loadings on critical circuits and make it difficult to define zones.
  - The definition of local works will affect zoning criteria.
  - Being geographically proximate does not necessarily mean being electrically proximate, especially when substations are operated in a "split" configuration. In this instance, re-arranging of busbar sections or substation uprating may be required to facilitate TEC sharing.

#### *Working Group 3 discussion*

- 5.15 Working Group 3 noted the importance that any new zoning methodology should be suitable for all long and short-term transmission access products proposed under the suite of CAP161-166 amendments and gave consideration to the trade-off between the potential increased costs of operational constraints, the liquidity of absolute trades, and the number of nodes in each zone. It was considered that zones should be based on capability (e.g. local connection capacity) rather than obtained long-term transmission access rights (TEC or its equivalent).

#### **Hybrid zoning methodology**

- 5.16 At the fifth meeting of Working Group 3 on 1<sup>st</sup> July 2008, National Grid presented some indicative generation zones based on a hybrid (of SZM and NZM) zoning methodology, in that a critical trip was applied (under n-d) with 100MW injected at each of the rim nodes and then extracted at the hub node. Following this, the loading of all lines under a combination of every rim-rim, rim-hub pair was analysed. If a loading increased by more than 20MW, this

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<sup>5</sup><http://www.nationalgrid.com/NR/rdonlyres/9A797D89-2BC2-459C-A3C7-744F3212109F/25954/Meeting2Zoning.pdf>

was then considered to be a 'sensitive' case. The exercise was repeated for a number of other critical trips with a sense check undertaken prior to determining the zones.

- 5.17 The methodology applied to determine a set of zones was as follows:
1. Set local works and size of zones (2 of the 3 variables – excluding constraints).
  2. Identify active constraints based on existing knowledge of that selected zone.
  3. Calculate the volume of additional constraints based on:
    - NZM sensitivities.
    - Load factors of buying and selling generators to calculate the volume of potential tradability.
    - Use realistic outage windows to estimate the number of hours of potential exposure to constraints.
  4. Estimate the costs of constraining off and replacement energy.

#### *Operational constraint costs*

- 5.18 In addition to presenting some indicative generation zones and some of the issues surrounding the zoning process, consideration was given to the balance between facilitating transmission access tradability within zones and the consequences of constraint costs and stability.

- 5.19 Operational constraint cost is calculated based on the volume of active constraints (MWh), multiplied by the cost (£/MWh) of these constraints. It was noted that a small generation zone will lead to less trading options, though this might not necessarily be considered as a 'low' level trading. Working Group 3 members considered that a potential % cap of total zonal trades should ideally, be the same for all generation zones, although different zones may permit a far larger volume of transmission access trade for the same operational cost risk. It was considered that limits on trades would allow larger zones with more nodes, and that a limit could be set as a function of the load factor of generators, or proportions of the total transmission access capacity (MW) within a zone.

- 5.20 National Grid presented some high level analysis on the volume of additional constraints and the associated cost of this, based on a mid-depth local works definition and the exchange of between 25-100% of TEC within a zone when compared to existing constraint costs of approximately £80m per annum.

#### *Working Group 3 discussion*

- 5.21 Working Group 3 noted that there is a trade-off between (i) nodal tradability, (ii) maximum zone size and (iii) how much local works must be completed prior to transmission access being allocated. For example, if a deep definition of 'local works' is applied then, as a consequence, zones are likely to be larger. It was reiterated that the existing assumption is that when transmission access is exchanged or shared, resulting in additional constraints, this additional cost will be socialised amongst all transmission system Users.

- 5.22 Working Group 3 noted that there are three different areas in the TAR proposals where local assets and works are defined: (i) within the CUSC; (ii) for local charging purposes; and (iii) within the zoning methodology. Working Group 3 considered that the disconnect between the actual local works that

are required for a connection and the local charge which the User will pay may be necessary to:

- Avoid circumstances in which there would be a permanent output restriction on a generator being connected; and
- Protect the individual generator from the actions of others or the decisions of the Transmission Owner.

- 5.23 The Working Group noted that having separate definitions may be consistent with the way in which current Construction Agreements list the incremental works required to accommodate generators, with the generator paying the Long-Run Marginal Cost (LRMC) derived from the Investment Cost Related Pricing (ICRP) transport model. However, the Working Group subsequently agreed that different CUSC and charging definitions may lead to Users getting access rights without facing the associated cost reflective charge, as described in 35.84 below.
- 5.24 Working Group 3 considered that the stability of zones was very important and therefore new generation zones should not be developed in this process on the premise that zones are acceptable at present, but there may be issues to address in the future. The presentation slides relating to the hybrid zoning methodology can be found on the National Grid Codes website.<sup>6</sup>
- 5.25 At the sixth meeting of Working Group 3 on 16<sup>th</sup> July 2008, National Grid presented some indicative generation zones, using a 'mid depth' definition of local works and a lower Sensitivity Factor limit (20%). In order to avoid significant local works reinforcement conditions, very small zones were created which based on previous Working Group 3 discussions, were considered too small. However, it was noted that to fully appreciate the 'size' of zones, it is the number of trading parties and the amount of tradable transmission access capacity within a zone that should be considered more relevant than the geographic area.
- 5.26 In parallel, National Grid presented some further analysis on indicative generation zones based on a 'deeper' definition of local works, to assess how this may increase the tradability of transmission access. Several Indicative zones were created although it was noted that it was not possible to zone certain regions such as East Anglia on the basis of the deep definition, without invoking local works designs that were economically inefficient. In general, it was considered by the Working Group that moving to a deeper definition of local works did little to increase the size of zones and the potential liquidity of access sharing.
- 5.27 Working Group 3 noted that stability at nodes is important, but the possibility of considering (i) nodes with existing generation and (ii) nodes with signed applications (to connect to the transmission system at some date in the future) should be explored. This was not necessarily perceived to provide stability to zones beyond a 3 to 5 year period, but it was deemed workable if a fully automated and transparent model can be made publicly available to the industry.

#### **Generation zoning and nodal exchange rates**

- 5.28 At the seventh meeting of Working Group 3 on 29<sup>th</sup> July 2008, National Grid recapped on the generation zones which had been presented to date, noting

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<sup>6</sup> [http://www.nationalgrid.com/NR/rdonlyres/1E709B88-B313-47B7-9835-2424C283798C/26845/GenerationZoning\\_final\\_meeting5.pdf](http://www.nationalgrid.com/NR/rdonlyres/1E709B88-B313-47B7-9835-2424C283798C/26845/GenerationZoning_final_meeting5.pdf)

that these were based very much on existing generation centres, existing demand centres and radial spurs.

- 5.29 When identifying the generation zones, a number of factors had been raised as requiring consideration, particularly as to whether generation zones should be developed with a view to them being short-term or long-term, and whether they should be based on physical transmission system boundary limits or the additional constraint costs that these would be likely to produce. Given the complexity of zoning, attention of Working Group 3 turned to giving consideration of inter-zonal TEC exchange of transmission access and even the possibility of nodal TEC exchange of transmission access.
- 5.30 The options considered included the determination of a nodal 1:1 exchange rate based on the physical transmission network rather than generation background, which should therefore be temporally stable. This option would need to consider both long-term and short-term timescales, local charging definition and reflect network contingency analysis.
- 5.31 The second option was for a Locational Marginal Pricing (“LMP”) based approach for setting point-to-point rights. This bid-based approach can accommodate multiple constraints and payments would be made into a ‘pool’ based on the cost as compared to a hub point. Working Group 3 had concerns that the results would be volatile and that there would be less transparency behind the prices. In addition, the approach was felt to be complex.
- 5.32 Alternatively, a ‘flowgate’ approach was considered which would look at the physical capacity of constraining transmission circuits. This was felt to be a substantial change to existing transmission access rights, and with the example of around 1.5 billion nodal calculations per year required to update the flowgate rights, Working Group 3 felt that this option was the most complex to implementation and was prone to volatility.
- 5.33 The last option considered was the use of a nodal exchange rate using a MWkm methodology. Consideration was given to using the Direct Current Load Flow (“DCLF”) transport model currently used to calculate TNUoS tariffs, to calculate nodal exchange rates for transmission access. This option involved taking into account various sets of contingencies, with the added advantage that some automation to identify all circuits was already available in the form of the Secured Load Flow model used to calculate to Global Locational Security Factor in TNUoS tariffs.
- 5.34 The weaknesses of this option were noted as being that the use of MWkm as a measure, does not equate to a critical circuit flow and as a result, overestimated transmission access exchange rates had already been identified at this early stage and would continue to be a significant risk. In addition, it was noted that there was no correlation to overloaded flow and the increase in GBSO costs that would be associated with this.
- 5.35 At the eighth meeting of Working Group 3 on 13<sup>th</sup> August 2008, as well as further developing the principle of a zonal methodology based on nodal exchange rates, National Grid introduced a zonal alternative and a nodal alternative.
- 5.36 **Nodal exchange rates:** A step by step methodology was discussed for establishing zones through grouping nodes between which the exchange rate fell within a certain range. Example exchange rates were shown for a

particular approach based on specific assumptions. The approach was based upon worst-case contingencies in order to establish exchange rates, where the resultant zones would have minimal constraint costs arising from the exchanges. Transmission access exchange rates were shown for one set of possible assumptions. Working Group 3 was comfortable with the exchange rate discussed, which reflected the different impacts on a specific circuit from different nodes, but expressed concerns that under various critical trips the exchange rate may change significantly.

- 5.37 **Zonal alternative:** An alternative is to use zones that have already been defined (e.g. SYS, charging or candidate short/medium term generation zones), then the impact of such (i.e. increase in constraint costs) could be examined for an agreed suite of assumptions and scenarios. The working group agreed that careful assumption must be made around likely projects connecting and TEC sharing behaviour.
- 5.38 **Nodal alternative:** Working Group 3 considered an ex ante nodal exchange rate approach. The total impact on constraint costs is mitigated when Users who wish to share, notify the SO of the specific nodes between which the transmission access will be shared in addition to the maximum size of trade. This allows a more robust exchange rate to be established. Once granted sharing could occur over any timescale; without exposure to nodal overrun charges.

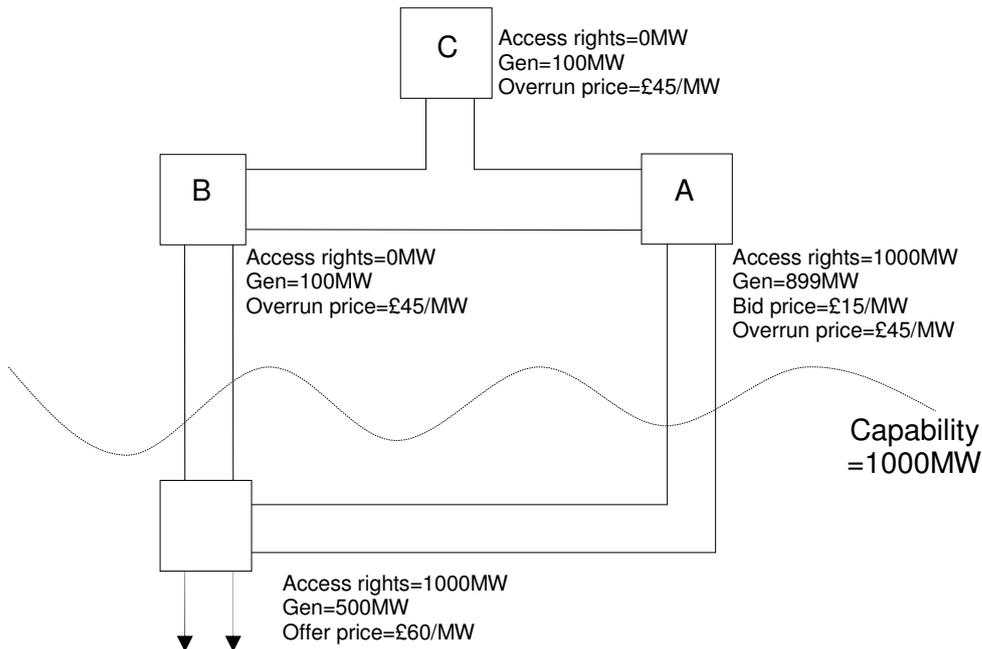
#### **Sharing access rights between nodes**

- 5.39 Given the issues identified with establishing zones in which sharing with a 1:1 exchange rate is allowed, at the ninth meeting of Working Group 3 on 22<sup>nd</sup> August 2008, the Working Group gave some further consideration to some potential options for sharing transmission access between nodes, without the requirement for generation zones. Three models were considered (the presentation is available on the National Grid Codes website):
- (a) Sharing with exchange rate determined by ratio of nodal (ex post) Overrun prices;
  - (b) Sharing with fixed point to point exchange rate calculated by National Grid based on known volume and duration; and
  - (c) Sharing facilitated by the release of point to point transmission access rights by National Grid in investment timescales.

#### **Exchange rate determined by ratio of nodal Overrun prices**

- 5.40 Under this option, the User would notify National Grid of a sharing arrangement agreed bilaterally between two parties. National Grid would then calculate exchange rates based on (ex post) overrun prices. The results from these calculations would then form the inputs into the calculation of overrun volume.
- 5.41 Whilst overrun prices allow Users to share transmission access rights to an extent, Working Group 3 considered that there was an issue with a bilateral exchange being affected by a third party generating, which would consequently affect the overrun prices and exchange rates
- 5.42 If we consider the simplified example (shown in the diagram below) of two generators behind a constraint, generator A has long-term transmission access rights and generator B does not. The overrun price increases above zero only if the aggregate output from both generators exceeds the long-term rights held by generator A. This means that provided generator A reduces

output whenever generator B wants to generate, the overrun price faced by generator B will be zero.



- 5.43 This arrangement would break-down if there was a third generator, generator C, generating without transmission access rights behind the same constraint. The output from generator C could also cause the overrun price to increase above zero, undermining the effectiveness of the sharing arrangement between generator A and generator B.
- 5.44 In these circumstances, generator A is not able to extract the full value of their transmission access rights due to the actions of a third party. This would be solved if generator A and generator B were to enter into a sharing arrangement with the associated transmission access exchange rate based on the ratio of the (ex post) nodal overrun prices. Now, if generator C decides to generate, this would push the overrun price at the generator A node and the generator B node such that the exchange rate remains constant.
- 5.45 In more complex examples, the actions of generator C may cause the exchange rate between generator A and generator B to diminish, as there would be a constraint between generator A and generator B, but the value of generator A's transmission access rights at generator B's node would always be accurately reflected.
- 5.46 Working Group 3 considered the following high-level process for exchange rates determined by the ratio of overrun prices, noting that this option for sharing transmission access rights was reliant on the approval of the CUSC amendment (CAP162) to introduce overrun prices calculated in a cost reflective manner. The Working Group subsequently agreed that this option was only applicable with Overrun with a marginal price, as described in the Final Conclusions from Working Group 3 below.
- (a) Users notify National Grid of sharing arrangement
    - i. It has been assumed that a joint request for a sharing arrangement would be made by a User with transmission access rights (seeking to donate) and a User without transmission access rights (seeking to receive).

- ii. The request would state a 'go-live' date and 'end-date' for the arrangement, along with a maximum capacity in MW. The maximum capacity is included to allow a User to donate to a number of receiving Users.
  - iii. The request would need to be made [x] days ahead of time to allow for the necessary administrative process to be undertaken.
  - iv. The Sharing arrangement and associated 'go-live' date and 'end-date' would need to be recorded in a central register.
- (b) National Grid calculates transmission access exchange rates based on ratio of (ex post) overrun prices
- i. For a donation of transmission access rights from node A to node B, the exchange rate would be calculated as:

$$\text{Exchange rate} = \frac{\text{Overrun price}_{\text{Node A}}}{\text{Overrun price}_{\text{Node B}}}$$

Therefore, if the power station at node A reduces output to 100MW below its total transmission access rights holding, and the overrun prices are £45/MWh at node A and £50/MWh at node B, this would provide for the following at node B:

$$100MW \times \left[ \frac{\text{£45/MWh}}{\text{£50/MWh}} \right] = 90MW$$

- ii. This calculation would be performed for each half-hour for which the sharing arrangement is valid (i.e. between 'go-live' date and 'end date').
- (c) Results from calculations in (b) form inputs to calculation of Overrun volume
- i. It should be noted that this calculation is reliant upon Overrun prices being calculated prior to the final volumes of Overrun being known. (This cannot be done for the Cost Recovery methodology)
  - ii. The volumes of Overrun at each node would need to be corrected for these exchange rates. If, in the example above, a generator at node B without access rights generated 100MW, this would initially be considered as 100MW of Overrun, but the exchange rate would then be calculated which would essentially show a 100MW donation from node A providing 90MW of transmission access rights at node B and the Overrun volume would be corrected from 100MW to (100MW-90MW=) 10MW.

#### **Fixed point to point exchange rate calculated by National Grid**

5.47 Whilst option 1 (exchange rate determined by ratio of nodal Overrun prices) may be acceptable for Users that are reasonably (electrically) proximate, this is unlikely to be the case for generators that are further apart, due to the increased risk of a binding constraint that effects the receiving (but not the donating) generator. In order to facilitate sharing for these power stations, National Grid could calculate a fixed transmission access exchange rate that could be applied.

5.48 The work to investigate 1:1 sharing within pre-defined zones has identified significant risks due to actual node to node exchange rates being dependent upon:

- (a) The volume of transmission access rights shared: A node to node exchange rate calculated based on a transfer of 1MW may be incorrect for a transfer of 10MW, 100MW or 1GW.

- (b) Other transmission access right sharing: The exchange rate between nodes A and B may be incorrect if there is a transfer between nodes C and D.
  - (c) Other time dependent transmission system conditions: On the day transmission system conditions, such as demand and circuit outage conditions, also impact on node to node exchange rates.
- 5.49 In order to ensure that reasonable node to node exchange rates can be calculated, the User would need to minimise uncertainty by specifying the maximum volume of transmission access rights to be Shared and the timing and the duration of the sharing arrangement.
- 5.50 Working Group 3 considered the following high-level process for fixed point to point transmission access exchange rates calculated by National Grid.
- (a) Users apply to National Grid for a fixed exchange rate
    - i. It has been assumed that a joint request for a sharing arrangement would be made by a User with transmission access rights (seeking to donate) and a User without access rights (seeking to receive).
    - ii. The Users would be liable to pay a fee to cover the cost of the analysis performed by National Grid.
    - iii. The request would state a 'go-live date' and 'end-date' for the arrangement, along with a maximum capacity in MW. As described above, the fixed duration and maximum volume information is required to cap the risk associated with the sharing arrangement, allowing the SO to calculate a reasonable fixed exchange rate.
  - (b) National Grid calculates fixed point to point exchange rate
    - i. The request would need to be made a number of weeks ahead of time to allow for an engineering assessment to be undertaken by National Grid (the number of weeks of analysis would depend on the duration of the exchange rate).
    - ii. For applications for exchange rates within the current operational year, the assessment would be based on the current transmission system and would be performed against the requirements of the operational criteria contained in the SQSS. This assessment would reflect the information that is available in these timescales, including demand level and planned transmission system outages.
    - iii. For applications for exchange rates that go beyond the current operational year, the assessment would be against the current and committed transmission system (including planned reinforcements) and would be performed against the requirements of the planning criteria contained in the SQSS.
    - iv. This assessment should not increase socialised constraint costs or sterilise boundary capability.
  - (c) National Grid offers a fixed exchange rate and a User has 2 weeks to accept. If accepted, the Sharing arrangement and associated 'go-live date' and 'end-date' would need to be recorded in a central register and used in Overrun volume calculations and future 'applications' for capacity/exchange rates. The appropriate charge for this was considered to be a cost-reflective fee based on the administration costs.

***Point to point access rights released by National Grid***

- 5.51 In the event that a fixed transmission access exchange rate provided by the aforementioned option above was considered to be unacceptably low, Users may want the Transmission Owners to invest in order to achieve a point-to-point capability. Such investment could be minor (and therefore relatively

quick) when compared to the investment required to provide that same User with full entry rights.

- 5.52 In this option, a User would apply to National Grid for a transmission access right between [Node A] and [Node B] for a maximum of [X] MW and a duration of [Y] years. National Grid would then assess that application against the current planning baseline with an additional [X] MW of generation at Node A and an additional [X] MW of demand at Node B.
- 5.53 National Grid would then offer a point-to-point transmission access right to the User, with the offer including a list of reinforcement works triggered by that application. In the event that the User then accepts this offer, a point-to-point right is only available when reinforcements have been completed. The point-to-point right is recorded and used in overrun volume calculations and future applications for capacity / exchange rates / point to point rights. It was considered appropriate that a User should pay the TNUoS differential between Node A and Node B for [Y] years.

### **Cost of Constraint Analysis on the Short/medium Generation Zones**

- 5.54 The expected impact from implementation of the proposed short/medium term generation zones was presented during the tenth meeting of Working Group 3 on 12<sup>th</sup> September. An examination was made of the potential additional costs of constraints incurred as a result of transmission access sharing within zones. National Grid noted that where generators are permitted to connect to the transmission system without the requirement to undertake wider system reinforcement, this is likely to result in additional system boundary constraints and increase the constraint volumes on the existing constraint boundaries.
- 5.55 Working Group 3 considered that further thought regarding the range of assumptions was required in the pursuit of calculating the utilisation element of constraint cost. Problems with trying to make predictions about future constraint cost trends from using historic SO costs were identified. It was noted that in a zone which flips between importing and exporting, it is not appropriate to attribute a cost to the boundary constraint under a winter peak scenario as it might not always be obvious if costs are related to an export or an import. In these cases, the data used needs to be further analysed to properly attribute an export or import cost against the corresponding linear trending in export or import utilisation.
- 5.56 The locational element of constraint cost was also analysed. One to one trading was considered to be acceptable up to a point of 'headroom', beyond which a specific point to point arrangement would be required. It was noted that any trade undertaken will change the size and validity of the headroom. It was considered that this headroom figure could be fixed for a year, with some risk of an increase in constraints prior to re-calculation in the following year.

### **Initial Working Group 3 Conclusions**

- 5.57 Prior to the eleventh meeting of Working Group 3 held on 24<sup>th</sup> September, National Grid circulated a report<sup>7</sup> that examined the potential additional costs of constraints that would be incurred by the sharing of transmission access within generation zones. The additional utilisation and location costs are

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<http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandinggroups/wg161-166/>

calculated using a set of proposed generation zones. The calculations presented have considered factors including headroom, sensitivity factors and loading curves from the generators. The results indicated a total (utilisation + location elements) additional cost of constraints of about £37m per annum if trading up to the headroom level only is allowed. If trading beyond the headroom was undertaken up to 2 times the headroom, the cost of constraints could potentially rise to £1.1 billion per annum for the upper range and a potential saving of about £0.2 billion per annum for the lower range. The £0.2 billion saving is the total cost of constraint from the utilisation element plus the average historical cost of constraint that can be saved. The actual cost would vary depending on the system running arrangement, the characteristics of the generators and the duration of transmission access exchange.

- 5.58 During this eleventh meeting, a summary of the options considered was made. A zoning methodology that results in small zones, with a minimal increase in constraint costs, severely limits the liquidity of tradable capacity. The Working Group recognised that methodologies that form large trading zones provide greater tradability, although the increased operational constraint costs which could result from such zones was considered too great a risk. The remaining options are:
- (i) Larger zones, with trading limited to headroom on a point to point and beyond basis, with an allocation process for headroom and subsequent re-allocation process following the completion of a trade, was considered as a viable option by the Working Group. The downside however, was identified as being the complexity of the arrangements which would be required, the potential for hoarding capacity and that trades would be limited to within-zone; or
  - (ii) A nodal point to point option for the sharing of system access which the Working Group also concluded was a viable option.

### **Final Conclusions from Working Group 3**

- 5.59 The final Working Group 3 meeting was held on the 10<sup>th</sup> November, during which the key issues and areas for further confirmation from the consultation phase were discussed. One Working Group Consultation response stated that zones will lead to increased shared constraint costs but conversely, an overly pessimistic methodology may lead to under utilisation of capacity sharing. The Working Group concurred that the analysis previously presented showed that a zonal methodology with large zones has a significant risk of increasing total socialised constraint costs. National Grid discussed how, when determining nodal exchange rates, all feasible worst case system operation scenarios must be considered, in order to meet the principle of maintaining cost levels.
- 5.60 A respondent stated that a node to node exchange rate that was significantly different from 1:1 would reduce the effectiveness of sharing. Working Group 3 concurred and reiterated that this is likely to lead to sharing to occur mainly between proximate generators and it was concluded that the exchange rate should be capped at a maximum of 1 to 1 in order to prevent the ability for a User with multiple generators to book capacity and share it in order to minimise transmission charges. A view was expressed in a consultation response that capacity entry sharing should be available in both long term and short term timescales to which the Working Group agreed, although it

was recognised that exchange rates may differ between the two as certainty increases towards real time.

- 5.61 A respondent stated that a nodal exchange rate methodology must be robust and transparent, but it is felt that this may introduce unnecessary complexity and therefore cost. Whilst the Working Group agreed nodal point to point exchange rates requires a degree of complexity, ultimately it avoids the requirement to achieve a balance between limiting zonal tradability with an onerous headroom limit and introducing unacceptable risks through significant increases in socialised constraint costs. Working Group 3 therefore concluded that a node to node exchange rate methodology should be applied.
- 5.62 A respondent questioned how exchange rates based on zonal overrun prices would be calculated. The Working Group discussed the options for Overrun pricing set-out in Charging Pre-consultation GB ECM-14 (Consequential impact of CUSC amendment proposals: CAP161, CAP162, CAP163 and CAP164). The options are:
- (i) Simple Methodology;
  - (ii) Cost Recovery Methodology; and
  - (iii) Marginal Methodology.
- 5.63 The simple methodology is based on historic constraint data, which is mapped to 24 indicative constraint zones. This means that all the nodes in a particular zone would be subject to the same overrun price. The Working Group noted that implementing node to node exchange rates based on these overrun prices would essentially allow unfettered sharing with a 1:1 exchange rate within these zones.
- 5.64 The Working Group agreed that whilst these zones may give the appropriate level of accuracy for a simple pricing methodology (where the impact is limited by the Local Capacity Nomination), the analysis performed previously would suggest that allowing sharing on this basis would cause an unacceptable increase in socialised constraint costs. For this reason, the Working Group agreed that node to node sharing with exchange rates based on the ratio of ex post overrun prices should not be an option with the simple overrun pricing methodology.
- 5.65 Where the cost recovery methodology is based on a “degut” of the actual costs performed ex post by the System Operator, a methodology is used to attribute actual costs to the volume of Overrun to calculate a £/MWh Overrun price. Whilst, unlike the simple methodology, this cost allocation will be nodal, the Working Group agreed that this methodology would be inconsistent with node to node sharing based on the ratio of Overrun prices. This conclusion is based on concerns about the interaction between the derivation of the price and volume of Overrun (i.e. it would not be possible to calculate the Overrun price until the Overrun volume is known, and with sharing the volume is not known until the ratio of Overrun prices is determined).
- 5.66 The marginal methodology is based on a model of the transmission system which is optimised to minimise system balancing costs. The optimisation generates nodal marginal overrun prices (shadow costs). The Working Group noted that this pricing option was at an early stage of development, but agreed that provided it was developed such that truly nodal (rather than boundary based) prices were produced, then it would be appropriate for use

with node to node sharing with the exchange rate determined by the ratio of nodal overrun prices.

- 5.67 In summary, the Working Group agreed that node to node sharing with an exchange rate based on the (ex post) overrun prices should only be implemented if the marginal overrun pricing option is implemented.
- 5.68 One respondent specifically sought clarification for how codification could be implemented when three or more parties are involved in the transfer if the exchange rate is not 1:1. If different exchange rates are set for each exchange (there could potentially be 6 exchange rates for 3 parties) the codified approach would need to allocate TEC between parties such that monitoring can take place. The Working Group agreed that in cases where three or more parties are involved in the share, complex arrangements would be required to ensure an efficient outcome. Furthermore, the Working Group agreed that the number of parties involved in a share should be limited to two at this stage, but that this limitation should be reviewed when there is some experience of the sharing arrangements.
- 5.69 Several respondents to the Working Group Consultation requested clarification of how node to node access capacity exchange rates would be calculated. The Working Group agreed that further illustration would provide additional clarity.
- 5.70 The Working Group agreed that the basis of the exchange rate should be to “leave the system whole” such that any spare boundary capability is not used up and there are therefore no concerns about node to node sharing arrangements sterilising boundary capability.

### **Offshore generation**

- 5.71 Working Group 3 gave consideration to offshore generation and how this would be incorporated into zones. It was noted that offshore generation is currently being modelled at the landing point, assuming a radial connection and Grid Code compliance at the point of connection.

### **Governance**

- 5.72 Two approaches towards the governance of a new zoning methodology were considered by Working Group 3:
1. A new Licence Condition could be written into the Transmission Licence similar to that which exists for the Use of System Charging Methodology (Standard Licence Condition C5) and the Connection Charging Methodology (Standard Licence Condition C6).
  2. The governance arrangements for the new methodology could sit in the CUSC.
- 5.73 The Working Group considered that the CUSC defines the transmission access product and since zoning is part of the definition of the product, then it would be appropriate to include this as an Annex to the CUSC. Whilst this was the preferred option, the option of a Licence Condition was not ruled out. As Working Group considered the Original zonal methodology could not be practically implemented this issue was not discussed further, or the methodology developed.

### **Local Only Connections**

- 5.74 The arrangements for local connections were developed by Working Group 3, and the conclusions are described below.

Definition of Local Capacity Nomination

- 5.75 Working Group 3 proposed that for generators with local only connections, a local access product should be developed. This concept, the Local Capacity Nomination (LCN) would be the maximum capacity (in MW) to which a generator is entitled to obtain transmission access products (long-term and short-term access products and overrun) within a charging year. It was also identified that it must not exceed the Connection Entry Capacity (CEC) of that generator to avoid damage to local transmission assets.

Summary of the properties of Local Capacity Nomination

- 5.76 LCN was determined by Working Group 3 to have the following properties:
- LCN is the term used by a generator to notify National Grid of its desired maximum local capacity holding in a transmission charging year;
  - LCN represents the physical (and contractual) cap on the total generators' transmission access (MW) derived from a combination of all long and short-term transmission access products, including overrun;
  - LCN will not exceed a generator's CEC;
  - LCN is defined on a Power Station basis (consistent with TEC);
  - LCN will be allocated on a first-come-first-served basis;
  - LCN will be the basis upon which a generators' local asset charge will be calculated and levied;
  - LCN is shareable between generators, when multiple generators agree to share. Any sharing arrangement would be managed with a clause which, in the case of two generators sharing, would restrict one generator if the other generator is using the local connection capacity and vice versa. This approach is similar to that currently adopted to deal with design variation connections.

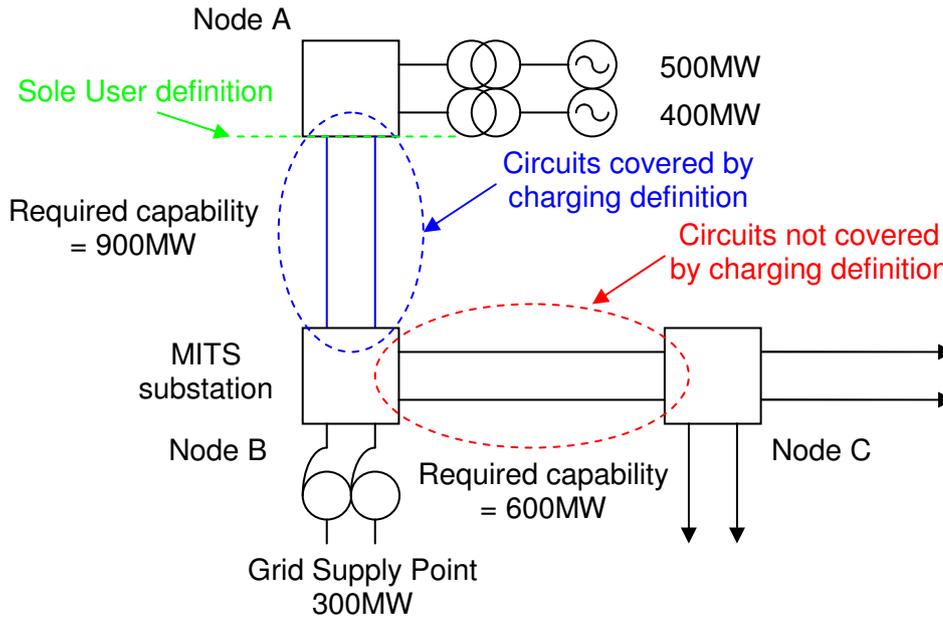
Enduring arrangements for existing LCN holders

- 5.77 Working Group 3 debated as to whether LCN should be a finite right, linked (or not) to the period of firm transmission capacity obtained in an auction, or evergreen. Given that a generator may not wish to obtain long-term capacity through an auction process, it did not seem appropriate to link LCN to capacity obtained through the auction.
- 5.78 Working Group 3 considered that evergreen rights would be appropriate provided the definition of local assets is generally limited to "sole use" assets; i.e. local assets are not shareable. Where local assets (which are not shared) come to the end of their life, the TO could determine whether they should be replaced following bilateral discussions with the relevant generator. It was noted that the proposed charging definition of local works included shared use assets in some circumstances and some Working Group members believed that it might be appropriate to change the definition of local assets in these circumstances in order to ensure that they are not shared.
- 5.79 The problem with the "sole use" approach to local assets is that it may not in all circumstances be consistent with the principle of ensuring that Users which purchase short-term access products or share, make an appropriate contribution to the cost of the assets that are provided to facilitate their connection. If a "sole use" definition of local assets were to be adopted, then the cost of "spur" circuits to entry points with multiple generators will not be based on LCN (in MW). In the extreme circumstance of a generator choosing a "local only" connection at an entry point at which other generators

are connected, that generator would not make any contribution to the cost of the transmission assets required to provide their connection.

- 5.80 This is shown in the below diagram. If a “sole User” definition were to be applied (this is represented by the dotted green line), neither generator would make any contribution to the cost of the spur (shown by the blue lines) required solely to provide their connection.

Potential Definitions of Local Works



- 5.81 The Working Group therefore concluded that local assets should not be limited to “sole use” assets. The Working Group considered that an alternative approach would be to use the definition from the “local generation charging” proposals contained in National Grid’s GB ECM-11 Conclusions Report, which is that local circuits are those between an entry point and the next Main Interconnected Transmission System (MITS) substations, where a MITS substation is defined as a Grid Supply Point with more than one circuit connected or a substation with more than four transmission circuits connected. In the diagram above, these local circuits are highlighted in blue.

- 5.82 In this simplified example, the circuits between node A and the next MITS substation (node B) would be defined as “local” under the charging definition. This means that the generators at node A would get access once these circuits had been reinforced to provide a secure capability of 900MW. However, the circuits between node B and node C would not be covered by the charging definition of “local”. This would lead to a permanent restriction to the output of the generators unless these circuits were reinforced to provide a secure capability of at least 600MW.

- 5.83 As described in 5.22 above, the Working Group originally considered that different charging and CUSC definitions of “local” works may be required to:
- Avoid circumstances in which there would be a permanent output restriction on generators being connected; and

- Protect individual generators from the actions of others or the decisions of the Transmission Owners.
- 5.84 On 10<sup>th</sup> November, Working Group 3 reviewed the consultation responses, allowing further discussion to be undertaken. The Working Group expressed concerns associated with different charging and CUSC definitions of “local” works. The Working Group noted that if the CUSC definition leads to reinforcement works that go beyond the next MITS substation in order to avoid permanent restrictions, then a user with LCN only will essentially be getting transmission access without paying the associated cost reflective charge.
- 5.85 Based on this concern, the Working Group agreed that the charging definition for local works should be consistent with the CUSC definition. The Working Group noted that there were scenarios where this definition could lead to a permanent output restriction being placed on a generator and that this would be reflected in bids for short-term access being turned down, restricted sharing exchange rates and high overrun prices. The Working Group also noted that the proposals for node-to-node sharing arrangements would allow generators in this position to apply for node-to-node access rights to facilitate sharing with other generators.
- 5.86 One Working Group Consultation respondent expressed concern that the initial view was to define LCN as a finite right, stating that generally local assets should not be shareable with other generators and that finite right arrangements are only required to redistribute assets that are no longer required by a User but can be used by other generators. During the final Working Group 3 meeting, the majority of Working Group 3 agreed that an enduring right approach was appropriate for sole user assets. National Grid completed some further analysis of the existing system and concluded that, given the relatively shallow nature of local works as defined, there were very few instances in which an enduring LCN right could risk causing inefficient investment of delays to the entry of new power stations.
- 5.87 It was acknowledged that since it is a feasible circumstance that multiple Users may wish to share LCN and the associated local assets, arrangements would be required to facilitate this. Working Group 3 agreed that this could be dealt with by including access restrictions in the generators connection agreement. This is similar to the treatment currently used to deal with connection design variations. The Transmission Owner would build sufficient local assets to cope with the shared holding of LCN only.
- 5.88 In summary, it was agreed that a local works definition based on the charging description of a MITS substation used in GB ECM 11 should be adopted. Interpreting this into a definition of works rather than a boundary leads to:

Local works are the **Transmission Reinforcement Works** that are required from the **Connection Site** to connect in to a MITS substation, inclusive of substation works, where a MITS substation is defined as:

- A **Grid Supply Point** connection with 2 or more **Transmission Circuits** connecting at the substation; or
- More than 4 **Transmission Circuits** connecting at the substation,

For the purposes of this definition, for an **Embedded Power Station** the **Connection Site** is the associated **Grid Supply Point** as defined in the **Bilateral Agreement**

Application processes

- 5.89 **New connections:** Existing applications for new generation connections are progressed in line with Section 2.13 of the CUSC: *New Connection Sites, based on the desired CEC and TEC of the applicant*. Following any implementation of one or more of the suite of CUSC Transmission Access Review Amendments (CAPs 161-166), it is foreseeable that a generator may wish to obtain only short-term access products following connection. Given that a generators' LCN will determine the level of obtainable short-term (and long-term) transmission access, and provide the basis upon which the TO decides an economic level of transmission investment, the concept of LCN needs to be introduced into CUSC Exhibit B: *Connection Application*. A connection application will then be progressed under the same process as any other connection application.
- 5.90 **Existing connections wishing to increase LCN:** Section 6.30.2 of the CUSC: *Increase in Transmission Entry Capacity* defines the process by which generators can currently apply to increase their TEC. Any request from a User to increase its TEC for a connection site up to a maximum of its CEC is deemed to be a modification. This approach also appears appropriate for Users wishing to apply for an increase in LCN. In the event that multiple generators were sharing LCN, the application would have to be made on behalf of all of the generators involved.
- 5.91 **Application fees:** Given the proposed changes to the transmission access regime, it is considered appropriate that the current application fees included in the Statement of Use of System Charges, should be reviewed to differentiate between connection, local, and wider transmission system applications. Fixed and variable application fees will remain in operation. The Working Group noted in particular that generators wishing to increase LCN above their current TEC level during transition should not be exposed to the full Modification Application fee currently associated with changes in TEC.
- 5.92 **Pre-commissioning user commitment:** Working Group 3 identified that there are a number of potential options for arrangements to provide pre-commissioning user commitment:
- Cost-reflective final sums liabilities (possibly capped at the original offer);
  - A liability based on the relevant Unit Cost Allowance (UCA); or
  - A liability based on a multiple of the local generation TNUoS tariff.
- 5.93 Working Group 3 concluded that the requirement for pre-commissioning security associated with increases in LCN should be consistent with the arrangements proposed for wider long-term transmission access under CAP165.
- 5.94 The CAP165 Original proposal for wider rights is a liability that ramps up over the 4 years prior to completion, to a total of 8 times the wider generation TNUoS tariff. This is reflected in the minimum booking of wider access rights to apply post-commissioning. The 8 years is derived from analysis of TNUoS tariffs against wider UCAs, which shows that, on average, the UCAs are 15 times the TNUoS tariffs. The 15 is halved to reflect a 50/50 risk sharing between generators and consumers. Consistency would imply that the same multiplier could also be used for local connections.

- 5.95 However, there is an additional rationale for 8 years being an appropriate multiplier: If local TNUoS was exactly reflective of capital costs, then a capital payment of 8 x annuitised TNUoS would cover 50% of the capital costs. This is because the TNUoS methodology converts capital sums by assuming a 50 year asset life and a 6.25% rate of return. Annual sums can be converted into a capital sum by multiplying by:

$$(1-(1+0.0625)^{-50})/0.0625 = 15.22$$

- 5.96 If the 50% risk sharing, consistent with the CAP165 treatment for wider access is applied, the result is a multiplier of 8.
- 5.97 Local TNUoS would not recover all costs, due to Users paying for what they are using rather than what is installed. It therefore would seem appropriate that security is also provided on this basis, and that security should not be provided for TO investments made for wider system reasons.
- 5.98 The Working Group therefore concluded that, consistent with the CAP165 original treatment for wider access, pre-commissioning User commitment for local commitment should be based on a multiple of 8 years of local generation of TNUoS, profiled 25%/50%/75%/100% over the 4 years prior to completion.
- 5.99 Termination or reduction of the requested LCN would therefore result in the levying of a Local Capacity Reduction Charge, based on Local Cancellation Amounts. The Local Capacity Reduction Charge would be non-refundable.
- 5.100 The Local Cancellation Amount in each year would be a percentage of the Local Termination Amount, which is the higher of zero and eight times the relevant local generation TNUoS charge. The Local Capacity Reduction Charge would therefore be calculated as:

$$\text{Local Capacity Reduction Charge} = LCN_r \times LCAM_t$$

Where:

- $LCN_r$  is the reduction in Local Capacity Nomination in kW.
- $LCAM_t$  is the relevant Local Cancellation Amount which varies according to the number of full years from the Completion Date:
  - In the year prior to the Completion Date (i.e. t)  $LCAM = LTA \times 100\%$ , where LTA is the Local Termination Amount;
  - Where  $t=-1$ ,  $LCAM = LTA \times 75\%$ ;
  - Where  $t=-2$ ,  $LCAM = LTA \times 50\%$ ; and
  - Where  $t=-3$ ,  $LCAM = LTA \times 25\%$ .

$$\text{Local Termination Amount} = \text{Max}(0, (\text{LocGenTNUoS}_n \times X))$$

Where:

- $\text{LocGenTNUoS}_n$  is the relevant nodal Local Generation TNUoS tariff applicable to the generation project and published in the Statement of use of System Charges. If such a nodal tariff is not currently published, then the appropriate tariff will be calculated by National Grid as part of the application process, in accordance with the Charging Methodology.
- X is a multiplier, initially taking the value 8, although it may be appropriate that this be amended in subsequent price control periods.

- 5.101 Local Cancellation Amounts will be calculated using the prevailing local Generation TNUoS tariff at the time of Capacity Reduction. Capacity Reduction Charges would not apply to projects where there are no transmission asset works.
- 5.102 **Pre-commissioning security:** The introduction of generic Local Capacity Reduction Charges, defined in the CUSC to replace the existing final sums regime, defined in the bilateral Construction Agreements, will also require the introduction of provisions to define the level of financial security that should be held in relation to these potential liabilities.
- 5.103 It is therefore to add the applicable Local Cancellation Amount to each User's Security Requirement, as defined in paragraph 3.22 of the CUSC. To the extent that these amounts exceed the Allowed Credit extended to each User, Security Cover will need to be provided to National Grid, in any of the forms prescribed in the CUSC.
- 5.104 Working Group 3 noted that alternatives to the CAP165 Original amendment proposal had also been developed by Working Group 2, including cost reflective final sums liabilities. The Working Group noted that should these CAP165 alternative amendments be approved, then they would also amend the pre-commissioning liabilities and security associated with LCN to be cost reflective final sums liabilities,
- 5.105 **Existing connections wishing to decrease LCN:** Section 6.30.1 of the CUSC: *Decrease in Transmission Entry Capacity* defines the process by which generators can currently reduce their TEC. Essentially, a User is entitled to decrease its TEC giving five business days notice in writing, prior to the 30 March in a financial year, with that notified decrease in TEC taking effect on 1 April of that same year. The Working Group also noted the discrepancy between the late March deadline and National Grid's requirement for charge setting data to be provided no later than 23<sup>rd</sup> December in the previous (charging) year. The Working Group recommends the alignment of the notification timescales associated with TEC / LCN reduction with the TNUoS charge-setting process.

#### Transitional arrangements to LCN

- 5.106 Working Group 3 considered three options for transition from the current arrangements to those which require a Local Capacity Nomination.
- LCN based on a generator's CEC  
Given that CEC is not currently linked to transmission access allocation, this option seems the least appropriate.
  - LCN based on a generator's TEC  
Given that the suite of CUSC Transmission Access Review Amendments (namely CAPs 161, 162, 163, 164, 165 and 166) are potentially introducing some fundamental changes to the way in which transmission access is allocated, existing TEC may not be considered appropriate for some generators.
  - Generators would notify National Grid of its desired LCN in advance of a pre-defined date  
Working Group 3 concluded that this option appeared to be the most practical solution, although it was noted that the value notified will be limited to a generators CEC. In the event that a generator did not notify National Grid of its desired LCN, the use of TEC as a default value seemed appropriate. In the instance that multiple generators wish to share an LCN, a process for request will be required. Timescales for a

generator to notify National Grid of its desired LCN value will be very much dependent on the transmission access products implemented.

## 6.0 WORKING GROUP ALTERNATIVE AMENDMENTS

- 6.1 Whilst the Working Group acknowledged the benefits that a zonal approach would provide in principle, they recognised the inherent risk of significant constraints and thus felt the zonal approach was not practical. The Working Group agreed to take forward a nodal version of CAP161 Original amendment.
- 6.2 From an assessment perspective nodal SO Release would prove a much more accurate forecast with lower risks. This would enable the volume of access to be better priced and so maximise the volume available to Users through an open and transparent process. The Working Group agreed to take forward the CLDTEC proposal as an alternative, although only on a nodal basis given the discussion on the implication of zones.
- 6.3 The Working Group therefore agreed to take forward nodal alternatives for the Original, CLTEC and Original + CLDTEC. National Grid would request confirmation from the Authority that legal text will not be submitted for the Original amendment proposal in accordance with CUSC 8.19.5.
- 6.4 This creates 3 Working Group Alternative Amendments

WGAA1	Nodal: Original (5 week and 2 day ahead auctions)
WGAA2	Nodal CLDTEC
WGAA3	Nodal : Original (5 week and 2 day ahead auctions) and CLDTEC

- 6.5 A respondent indicated that under a nodal model that the Working Group should consider moving the 5 week ahead and 2 day ahead products away from pay as bid to a forecast price. The Working Group did not agree with this approach given that the SO Release was competing across boundaries and with out products for access.

## 7.0 ASSESSMENT AGAINST APPLICABLE CUSC OBJECTIVES

- 7.1 The Working Group considered the CAP 161 Original against the CUSC Objective(s);
- (a) the efficient discharge by the Licensee of the obligations imposed upon it by the act and the Transmission Licence;

In principle CAP161 Original would permit greater use of the GB transmission system, however the concept of zones could not be efficiently integrated within the framework without the risk of significant costs, and therefore a zonal model did not better facilitate the CUSC applicable objective (a).

Some members of the Working Group believed that the Original concept of SO Release on a zonal basis provided the benefits discussed for the WGAA 1 (section 7.2a below) and that these overall outweighed the risk of increased costs.

- (b) facilitating effective competition in generation and supply of electricity and facilitating such competition in the sale, distribution and purchase of electricity.

CAP161 Original would facilitate more plant accessing the market which would have a beneficial impact on competition in the energy market, however the implication of 1:1 sharing on investment and operational costs would be borne by all Users. Therefore CAP161 Original would not better facilitate CUSC applicable objective (b).

Some members of the Working Group believed that the Original concept of SO Release on a zonal basis provided the benefits discussed for the WGAA 1 (section 7.2b below) and that these overall outweighed the risk of increased costs.

- 7.2 The Working Group considered WGAA1, nodal 5 week ahead and 2 day ahead auctions, against the applicable CUSC objectives:

- (a) the efficient discharge by the Licensee of the obligations imposed upon it by the act and the Transmission Licence;

WGAA1 would provide an efficient means for additional parties to access and so optimise the use of the GB transmission system, whilst not unduly increasing operational costs born by other Users.

The more flexible access arrangements presented to Users for accessing the system will allow them to better manage their positions in an economically efficient manner. This may release previously allocated firm long term capacity for use by other Users. Furthermore the flexibility presented in the release of capacity will support the efficient investment in assets to provide long term access by transmission licensees.

- (b) facilitating effective competition in generation and supply of electricity and facilitating such competition in the sale, distribution and purchase of electricity.

WGAA1 would facilitate more plant accessing the energy market which would have a beneficial impact on competition. Accessing the market through cost reflective access products would better facilitate effective competition.

Some members of the Working Group believed that the complexities and lack of transparency associated with this proposal will discourage investment in new generation and lead to increased risk of premiums which will not facilitate competition.

- 7.3 The Working Group considered WGAA2, nodal CLDTEC, against the applicable CUSC objectives

- (a) the efficient discharge by the Licensee of the obligations imposed upon it by the act and the Transmission Licence;

WGAA2 would provide an efficient means for additional parties to access and so optimise the use of the GB transmission system, whilst not unduly increasing operational costs born by other Users.

The more flexible access arrangements presented to Users for accessing the system will allow them to better manage their positions in an economically efficient manner. This may release previously allocated firm long term capacity for use by other Users. Furthermore the flexibility presented in the release of capacity will support the efficient investment in assets to provide long term access by transmission licensees.

Providing more products would encourage better use of the system by more diverse participants. Some members were concerned that a greater range of products increased the risk that parties could avoid true costs of access.

Some members of the Working Group believed that CLDTEC could be discriminatory as it could potentially lead to 'free riding' on the transmission system if parties are able to gain long-term access at values that do not fully reflect the true costs.

- (b) facilitating effective competition in generation and supply of electricity and facilitating such competition in the sale, distribution and purchase of electricity.

WGAA2 would facilitate more plant accessing the energy market which would have a beneficial impact on competition. Accessing the market through cost reflective access products would better facilitate effective competition.

Some members of the Working Group believed that the complexities and lack of transparency associated with this proposal will discourage investment in new generation and lead to increased risk of premiums which will not facilitate competition. This was not the majority view of the Working Group.

Some members of the Working Group were concerned that the timescales of CLDTEC increased the level of error in forecast costs and so increased the risk of socialisation.

- 7.4 The Working Group considered WGAA3, nodal 5 week ahead and 2 day ahead auctions and nodal CLDTEC, against the applicable CUSC objectives:

- (a) the efficient discharge by the Licensee of the obligations imposed upon it by the act and the Transmission Licence;

WGAA3 would provide an efficient means for additional parties to access and so optimise the use of the GB transmission system, whilst not unduly increasing operational costs born by other Users.

The more flexible access arrangements presented to Users for accessing the system will allow them to better manage their positions in an economically efficient manner. This may release previously

allocated firm long term capacity for use by other Users. Furthermore the flexibility presented in the release of capacity will support the efficient investment in assets to provide long term access by transmission licensees.

Providing more products would encourage better use of the system by more diverse participants. Some members were concerned that a greater range of products increased the risk that parties could avoid true costs of access.

- (b) facilitating effective competition in generation and supply of electricity and facilitating such competition in the sale, distribution and purchase of electricity.

WGAA3 would facilitate more plant accessing the energy market which would have a beneficial impact on competition. Accessing the market through cost reflective access products would better facilitate effective competition.

Some members of the Working Group believed that the complexities and lack of transparency associated with this proposal will discourage investment in new generation and lead to increased risk of premiums which will not facilitate competition. This was not the majority view of the Working Group.

Increased choice of products will encourage more efficient use of the system.

Some members of the Working Group were concerned that the timescales of CLDTEC increased the level of error in forecast costs and so increased the risk of socialisation.

Some members of the Working Group believed that CLDTEC could be discriminatory as it could potentially lead to 'free riding' on the transmission system if parties are able to gain long-term access at values that do not fully reflect the true costs.

## **8.0 IMPACT ON NATIONAL GRID IS SYSTEMS AND RESOURCES**

- 8.1 The conclusions of National Grid's initial IS impact assessment for the Original Amendment and the Working Group Alternative Amendments are summarised below. These conclusions are indicative only and are subject to change following further analysis.
- 8.2 Costs are identified as falling into one of three broad categories (less than £500k, £500k to £1m, and £1m to £5m). Timescales are indicated by stating whether or not the necessary systems can be delivered in time (for an assumed "first run" date) given various starting dates for the projects to deliver the systems. This approach has been followed for all of the CAPs in the TAR suite in order to provide consistency.
- 8.3 During the Working Group discussions it was noted that the volume of transactions would be one of the key factors in determining the complexity and reliability of the systems required to support the implementation of CAP161. For this reason a low volume scenario and a high volume scenario have been considered.

8.4 In the low volume scenario it is assumed that the volumes will be those described in the Section 4.70 of this report. The solution would involve new systems, modification of existing systems, and manual processes. In particular, it should be noted that:

1. 5 week ahead and 2 day ahead auctions would be conducted by e-mail and/or fax (i.e. there would not be a web-based system).
2. Bid assessment in the 5 week ahead and 2 day ahead auctions would be done using existing systems.
3. Credit checking would be a manual process.
4. Some elements of the settlement process might require manual processes.

Low volume scenario	Assumed date of decision by the Authority	First run	Months available if work begun after the Authority decision	Months available if work begun in Dec-08	Deliverable if work begun after Authority decision?	Deliverable if work begun in Dec-08?			
							<£500k	£500k - £1m	£1m - £5m
Original Zonal 5wk+2d	Jun-09	Feb-10	8	14	NO	YES		•	
WGAA1 Nodal 5wk+2d	Jun-09	Feb-10	8	14	NO	YES		•	
WGAA2 Nodal CLDTEC	Jun-09	Apr-10	10	16	YES	YES	•		
WGAA3 Nodal 5wk+2d+CLDTEC	Jun-09	Feb-10	8	14	NO	YES		•	

Where the above table indicates that if work starts in December 2008 it is feasible to deliver the necessary systems in time for the stated first run date, it may be assumed that any delay to the start of work would lead to an equivalent slip in the first run date.

8.5 In the high volume scenario it is assumed that the volumes in the 5 week ahead and 2 day ahead auctions are such that these auctions would need to be conducted using web-based systems. It is thought that the delivery of such systems would significantly change implementation costs and timescales. The effect on the Original, WGAA1, and WGAA3 would be to raise the costs above £1m and make delivery by February 2010 highly unlikely, even if work was to begin in December 2008. WGAA2 (Nodal CLDTEC) would be unaffected.

8.6 There are many limitations on the scope of this initial IS impact assessment. Examples include:

1. Only the impact on National Grid's IS systems has been assessed. The impact on CUSC parties' IS systems has not been assessed.
2. Only the costs of the projects required to deliver the necessary systems have been estimated. Additional run-the-business costs relating to IS systems are likely to be incurred, these have not been estimated.
3. There has been no analysis of any IS effort or systems required during the transition from the existing arrangement to the new arrangements.
4. Each CAP and each option associated with it has been assessed in isolation. The impact on time and cost of multiple projects running in parallel has been ignored.
5. National Grid has not assessed the work against its existing IS workload to assess resource availability.

- 8.7 A more accurate IS impact assessment for the Original Amendment and the Working Group Alternative Amendments would require a number of items which are not currently available. These include:
1. Definition of the business requirements for the Original Amendment and the Working Group Alternative Amendments in more detail than has been discussed by the Working Groups.
  2. Confirmation of certain technical assumptions which have been made during the initial analysis.
  3. Identification of the combination of CAPs 161-166 that is to be implemented and for each CAP that is to be implemented whether the Original Amendment or one of the Working Group Alternative Amendments is to be implemented.
- 8.8 Without prejudicing the decision of the Authority, National Grid intends to undertake further analysis between November 2008 and March 2009. This analysis will attempt to address point 1 above by making assumptions about the most likely detailed business requirements and will attempt to address point 2 by undertaking a number of feasibility studies. To address point 3 the analysis will consider the consequences of a variety of possible combinations. The results of the analysis will be made available to CUSC parties and the Authority.

**Estimated increase in resources**

8.9 National Grid has reviewed the processes to provide an estimate of the enduring operational resource requirements. The table below shows the estimated resources levels required, this covers all combinations and for each WGAA1. These estimates are based on nodal implementation. A zonal model would require possibly 25% additional resource given the greater complexities and risks involved. These are based on high level processes; more detailed process development may change these estimates. To implement by April 2010 National Grid would need to set up a dedicated implementation team from January 2009. the size of the team:

<b>Operational Resource Requirements</b>			
	<b>Low Uptake &lt; 3 bids per auctions From April 2010</b>	<b>Medium Uptake &lt; 10 bids per day/week From April 2011</b>	<b>High Uptake &gt; 10 bids per day/week After 2011</b>
<b>Options</b>			
<b>2 day ahead auctions, 7 days a week, daytime assessment</b>	1 FTE	4-5 FTE	>4-5 FTE
<b>2 day ahead auctions, 7 days a week, overnight assessment</b>	2 FTE	7 FTE	> 7 FTE
<b>2 day ahead auctions, 5 days a week daytime assessment</b>	½ FTE	2-4 FTE	> 2-4 FTE
<b>2 day ahead auctions, 5 days a week overnight assessment</b>	1 FTE	3½-4½ FTE	>3½-4½ FTE
<b>5 week ahead auctions</b>	½ FTE	2-4 FTE	> 2-4 FTE
	<b>Low Uptake &lt; 3 bids per month</b>	<b>Medium Uptake &lt; 10 bids per month</b>	<b>High Uptake &gt; 10 bids per month</b>
<b>CLDTEC</b>	½ FTE	2 FTE	> 2 FTE

WG Proposals	Low Uptake From April 2010	Medium Uptake From April 2011	High Uptake After 2011
<b>WGAA1</b> 5 week ahead auctions, <i>plus</i> 2 day ahead auctions, (5 days a week, overnight assessment)	1½ FTE	5½ - 8½ FTE	> 5½ - 8½ FTE
<b>WGAA2</b> CLDTEC	½ FTE	2 FTE	> 2 FTE
<b>WGAA3</b> 5 week ahead auctions, <i>plus</i> 2 day ahead auctions, (5 days a week, overnight assessment), <i>plus</i> CLDTEC	2 FTE	7½ - 10½ FTE	>7½ - 10½ FTE

- 2 day auction could be assessed, but not implemented without daily settlement i.e. not before April 2010.
- FTE is Full Time Equivalent i.e. the number of staff, grading has not been determined.

8.10 National Grid has also estimated the ongoing resource requirement for Settlement and monitoring on an enduring basis for the low scenario as a 1/2 Full Time Equivalent. This does not cover set up and testing of processes and systems. Implemented along with other transmission access proposals this resource may be partly shared due to the overlap in processes.

## 9.0 PROPOSED IMPLEMENTATION

9.1 National Grid is particularly interested in industry views on the proposed implementation issues and timescales proposed below.

9.2 Assumptions:

- Local charging GB ECM 11 is implemented in April 2009, or if vetoed other local charging arrangements are in place on or before CAP162 Original or WGAA implementation.
- Residual charging cannot be implemented until April 2010. The critical path is charging process, including the probable need for an impact assessment. Early implementation could be possible, and there are a number of options. These would have significant implications for revenue recovery and charging process and methodology.
- A 2 day ahead auction requires daily settlement. The earliest date by which IS systems for daily settlement could be delivered is April 2010.

9.3 The Working Group proposes that CAP161 Original or any WGAA's should be implemented on 1<sup>st</sup> April 2010, subject to receiving an Authority decision by 30<sup>th</sup> June 2009, and IS changes and recruiting proceeding as discussed below. If this decision date is not met then the implementation date will be delayed by the same length of time. A decision beyond this time may also have further knock on consequences for charging, tariff setting and accurate revenue recovery. Respondents to the Working Group consultation who supported SO Release supported the implementation date.

9.4 The Working Group acknowledged the implication of National Grid IS developments discussed in section 8 above. If National Grid IS work does not

proceed as in section 8 the implementation date would need to be delayed beyond April 2010.

- 9.5 The SO operational resources required to facilitate implementation are also highlighted in section 8. In order to recruit and train suitably qualified staff at least 9 months notice is required. Therefore for implementation of April 2010 National Grid would need to commence recruitment by July 09 at the latest, although for options with more than 5 staff notice by March 2009 would be required.
- 9.6 The Working Group discussed mid year implementation. The charging amendments associated with residual charging limit robust implementation prior to April 2010. After this time, once the charging arrangements are in place mid year implementation could be accommodated, although it is likely to affect the accuracy of revenue recovery. Early implementation of the proposed charging arrangements would require derogations against licence timescales and would be affected by a delay due to an Impact Assessment. Interim charging arrangements could be considered, subject to transmission licence conditions.
- 9.7 Considering the constituent parts of the Original and WGAs separately: 2 day ahead auctions with daily settlement cannot be implemented prior to April 2010; 5 week ahead auctions and CLDTEC could be implemented in 30<sup>th</sup> September 2009, subject to notification that the development and implementation work and the external recruitment process may begin in January 2009 and consideration of the residual and consideration of revenue flows under the licence.
- 9.8 Implementation of the Original or any WGAs will require changes to bilateral agreements, most significantly the Bilateral Agreements, Bilateral Embedded Generation Agreements and the Construction Agreements. The main change is associated with implementing LCN in existing bilateral agreements where this is not set at current TEC, and amending Construction Agreements for future connectees to separate local and wider works to facilitate earlier connection dates. It is estimated that this will take 6 months. Therefore an Authority decision would be required no later than September 2009 to implement by April 2010 in relation to LCN.
- 9.9 Working Groups 1 and 3 discussed the transition and enduring arrangements for LCN. Working Group 1 discussed that if during the transition a generator requested an LCN higher than existing TEC (up to a maximum CEC) then there should be a charge to assess this request, if additional works are required this would be treated as a full modification application. The charging statement would need to be updated to reflect this; however this is consistent with the existing charging methodology.

## **10.0 IMPACT ON THE CUSC**

- 10.1 CAP161 will mainly impact on sections 2 and 3 of the CUSC in relation to the obligations on Users and National Grid with respect to the rights and obligations associated with export on to the transmission system. There will also be other changes to accommodate Local Capacity Nomination in the CUSC and bilateral agreements, a new form to facilitate Local connection, and a number of credit and security changes associated with the revised connection arrangements and SO Release payments.

- 10.2 The Working Group also agreed that LCN should be added to the TEC register.
- 10.3 The text required to give effect to the WGAAAs has been developed by National Grid and discussed with the Working Group. This is supplied under Annex 1. In accordance with CUSC 8.19.5 National Grid has agreed that legal drafting for the Original is not submitted.

### **Impact on Bilateral Agreements**

- 10.4 Access rights granted through the 5 week ahead and 2 day ahead auctions will not require direct changes to Bilateral Connection Agreements (BCA) or Bilateral Embedded Generation Agreements following each auction. It is envisaged that the BCA or BEGA change to cross refer to access granted through SO Release i.e. to determine the exact access holding at any time BCA / BEGA Appendix C needs to be read along with the auction confirmation / offer acceptance.
- 10.5 CLDTEC will be treated in the same manner as LDTEC and so will require the bilateral agreement to be amended follow the acceptance of a CLDTEC offer to reflect the additional access granted.
- 10.6 Implementation of local connection arrangements in the CUSC along with LCN is expected to have an impact on Bilateral Connection Agreements, Bilateral Embedded Generation Agreements. It is envisage that it will only directly affect those parties who wish a different LCN to existing contracted TEC, and this can not be accommodated without additional reinforcement works. Parties who wish apply for LCN greater than existing TEC, or to bring forward connection dates in light of CAP161, would apply through a Modification Application in transition, so the bilateral agreements are not considered as being directly changed by CAP161 implementation. It was discussed that if there were no work required to accommodate the Modification Applications made during transition then the fee should not be a full modification application fee. National Grid indicated that within the charging methodology application fees were required to be cost reflective, so National Grid would consider introducing a new fee for Transitional Modifications that resulted in no works (an assessment fee), or submitted on the basis of no works required (i.e. if works were required the offer would be no additional capacity). This will impact on all transmission licensees charging statements.

## **11.0 IMPACT ON INDUSTRY DOCUMENTS**

### **Impact on Core Industry Documents**

- 11.1 Grid Code: There may be some new data obligations required, yet to be identified, along with some definitional changes. There may also need to be some house keeping changes to the data validation rules that are referenced by issue number in the Grid Code. There may be similar consequential changes as to when TEC and CEC were introduced under CAP043 in the Planning Code, in relation to Committed Planning Data.
- 11.2 These issues are being discussed by the Grid Code Review Panel. National Grid expects to bring forward any proposed changes in early 2009 through the Grid Code governance framework and have not identified any changes that are required for implementation of CAP161.

- 11.3 The Working Group discussed concerns that were expressed in the responses to the Working Group consultation that there were issues between the commercial interaction of CAP161 and Grid Code obligations. The Working Group considers this is an inherent risk within the framework documents that currently exists and the introduction of CAP161 would not unduly exasperate this. The Working Group indicated that within the commercial framework there was an expectation that Users would act as reasonable prudent operators with respect to the Grid Code obligations and noted Users were required to comply with the Grid Code through their licence and the CUSC.
- 11.4 STC: New processes and reconfiguration of the outage plan to accommodate early local connection would be required. These are being discussed by the STC Committee. The STC committee is expected to bring forward proposals developed under STC governance to accommodate the changes arising from CAP161 in early 2009.
- 11.5 BSC: None envisaged

#### **Impact on other Industry Documents**

- 11.6 SQSS: None if the short-term access release options leave the GB transmission system compliant. SQSS is being reviewed to establish impacts; this is not expected to delay implementation.
- 11.7 If GB SQSS changes are not implemented prior to implementation transmission licensees may need to consider a transitional period with derogations from the GB SQSS.
- 11.8 Charging methodologies: The proposals have a number of implications on charging arrangements which have been mentioned in this report. Changes are being discussed through the charging methodologies governance arrangements and are expected to be implemented by April 2010. A number of developments, GB ECM11 (local charging), GB ECM13 (residual charging) and GB ECM14, have already been taken forward.
- 11.9 Transmission Licence: Within this report the possible implications on revenue flows and incentives has been identified. These are mainly transmission licence issues rather CUSC. National Grid is reviewing the possible implications for the transmission licence and will contact Ofgem directly to discuss these and agree an appropriate way of taking any changes forward, particular with respect to facilitating short term revenue flows through Balancing Services Use of System charges. National Grid expects that SO incentives would be taken forward as part of BSIS scheme developments, TO incentives would need to be discussed separately. These arrangements could be implemented by April 2010 providing initial discussion and development is not delayed until the final decision.

## **12.0 WORKING GROUP RECOMMENDATION**

- 12.1 The Working Group believes that its Terms of Reference have been completed and CAP161 has been fully considered. Opinions within the group were divided. At the final meeting on 18<sup>th</sup> November 2008 fifteen Working Group members cast votes.

<b>Voting Results</b>	<b>For</b>	<b>Against</b>	<b>Abstain</b>
Original better than Baseline	4	10	1
WGAA1 better than Baseline	14	0	1
WGAA2 better than Baseline	8	6	1
WGAA3 better than Baseline	9	5	1

- 12.2 The Working Group also voted on which of the Original or the WGAA's better meets the CUSC applicable objectives:

<b>Voting Results</b>	<b>For</b>
Original best	0
WGAA1 best	8
WGAA2 best	0
WGAA3 best	7

### 13.0 AMENDMENTS PANEL RECOMMENDATION

- 13.1 The Panel agreed that the Working Group had fulfilled its Terms of Reference. A number of Panel members stated that the report was as complete as possible given the time constraints associated with the wider Transmission Access Review.

- 13.2 At the Panel meeting on the 19 December 2008 the Panel vote was as follows:

<b>Voting Results</b>	<b>For</b>	<b>Against</b>	<b>Abstain</b>
Original better than Baseline	0	8	0
WGAA1 better than Baseline	8	0	0
WGAA2 better than Baseline	5	3	0
WGAA3 better than Baseline	5	3	0

- 13.3 The Amendment Panel also voted on which of the Original or the WGAA's better meets the CUSC applicable objectives:

<b>Voting Results</b>	<b>For</b>
Original best	0
WGAA1 best	8
WGAA2 best	0
WGAA3 best	0

- 13.4 A number of Panel Members expressed concerns about the process that had been followed for the suite of modifications related to the transmission access review. The Panel agreed that a discussion covering these concerns along with lessons learned and consideration of how the conclusions are best communicated to the wider industry will take place at the Panel meeting in February. This will align with the completion of CAP166 and consideration of the interaction between modifications and the associated changes to the Charging Methodologies. The conclusions of this discussion will be forwarded to Ofgem such that they can feed into their assessment of the modifications, and potentially their wider work on Codes Governance.

## 14.0 NATIONAL GRID RECOMMENDATION

- 14.1 National Grid does not support implementation of the CAP161 Original proposal due to the issues associated with a zonal definition of access rights identified during the Working Group assessment.
- 14.2 The analysis work performed by National Grid demonstrates that the potential operational costs involved and hence the price at which SO Release could be offered would be unacceptable and so introduction of these arrangements would not better facilitate the efficient discharge by the Licensee of the obligations imposed upon it by the Act and the Transmission Licence, particularly the requirement to be economic and efficient.
- 14.3 National Grid supports the implementation of Working Group Alternative Amendment 1 (WGAA1) that retains the nodal definition of access. This proposal introduces arrangements that, whilst not as flexible for Users as those initially proposed, do provide a practical means to gain economic access from the System Operator in the short term.
- 14.4 The Working Group Alternative Amendment 1 better facilitates the efficient discharge by the Licensee of the obligations imposed upon it by the Act and the Transmission Licence by allowing users at Power Stations with different operating regimes to book capacity relatively close to real time, maximising the efficient use of the GB transmission system. These Users will only apply for additional long term access rights if it is economic to do so, given the choice of SO Release (which is priced at the forecast short term cost). This would improve the signal provided to National Grid to invest in the transmission system, leading to the development of a more economic and efficient transmission system. The Working Group Alternative Amendment 1 better facilitates competition by providing alternative transmission access options for all Users, and by potentially freeing up long-term access rights for use by new Users if existing Users choose to operate on short term access rights, for all or a portion of their capability, and therefore optimise their long-term access rights holdings.
- 14.5 Working Group Alternative Amendments 2 and 3 introduce a longer term form of SO Release. National Grid has some concerns that this could frustrate effective competition. The SO may not be able to effectively manage the risk to third parties through forecasting the increased operational costs for the duration covered by the product. The SO would need to build in a risk margin that may render the product useless or expose third parties to higher balancing costs. However, National Grid recognises that CLDTEC is more flexible than existing LDTEC and STTEC products and so may facilitate more efficient use of the transmission system. Given the proposed changes to charges, particularly residual and local charging, the concern that CLDTEC could allow free riding is avoided.
- 14.6 In summary, because of the concerns above our first preference is that WGAA1 is implemented, WGAA3 is our second preference.

## 15.0 INDUSTRY VIEWS AND REPRESENTATIONS

### 15.1 Working Group Consultation

15.1.1 The following table provides an overview of the representations received. Copies of the representations are contained in Amendment Report Volume 2.

Reference	Company	Supportive
CAP161-WGC-01	Scottish Renewables	Yes
CAP161-WGC-02	Wind Energy	Indifferent
CAP161-WGC-03	International Power	Yes, of nodal approach
CAP161-WGC-04	British Energy	Yes
CAP161-WGC-05	Welsh Power	Yes
CAP161-WGC-06	Scottish and Southern	Yes
CAP161-WGC-07	Gas de France ESS (UK) ltd	Yes
CAP161-WGC-08	E.ON UK	Yes, of nodal approach
CAP161-WGC-09	EDF Energy	No
CAP161-WGC-10	DONG Walney	Not expressed
CAP161-WGC-11	Centrica	Supportive for 5WA and 2DA options
CAP161-WGC-12	BWEA	Yes
CAP161-WGC-13	Scottish Power	Yes
CAP161-WGC-14	Renewable Energy Association	Yes
CAP161-WGC-15	Nuclear Decommissioning Authority	Yes
CAP161-WGC-16	Association of Energy Producers	Yes
CAP161-WGC-17	Immingham Power	Yes
CAP161-WGC-18	ESB International	Yes
CAP161-WGC-19	RWE	Supportive for 5WA and 2DA options
CAP161-WGC-20	Drax Power	No in principle

15.1.2 There were no Working Group Alternative Amendment consultation requests

### 15.2 Views of Core Industry Document Owners

15.2.1 National Grid has been in contact with the directly affected code owners discussed in this report. The most significant of these is the STC. A representative of the STC attended the Working Group as an observer and the STCC are progressing the necessary changes. Other code Panels received the consultations and have made no representations.

## 15.3 Company Consultation

15.3.1 The following table provides an overview of the representations received. Copies of the representations are contained in Amendment Report Volume 2.

Reference	Company	Comments
CAP161-CR-01	AEP	Concern about the timescales and the cost benefit analysis. General support that it should, in theory, enable connection of additional generation. Support for a nodal and not a zonal approach. Members have split views on the merits of the alternatives.
CAP161-CR-02	British Energy	Support the implementation of WGAA3. Usage should be monitored so improvements can be made through the CUSC amendment process. Agree with that the SO Release Methodology primary objective function should be based on price alone, and the methodology should be under the CUSC.
CAP161-CR-03	Centrica Energy	Concern over the assessment process, timescales, interaction of proposals and general depth of analysis. Support for the principle of nodal SO release, but not for CLDTEC. Implications cannot be fully assessed until charging changes are fully developed.
CAP161-CR-04	Drax Power Limited	Auctions would need to take place very close to real time. Short term products lack the certainty required by investors. CAPs 161, 162 and 163 do not provide adequate solutions to providing early connection.
CAP161-CR-05	E.ON UK plc	Proposal is likely to be a secondary product and so should be kept simple. Risk associated with zoning in the Original offset the benefits. Full support for 2 day ahead and 5 week ahead. Concerns about CLDTEC as an SO Release product. WGAA2 and WGAA3 are better than the baseline, but not better than WGAA1. Support proposed implementation.
CAP161-CR-06	International Power / First Hydro	Carry forward comments from response to the Working Group Report. Reiterate support for CLDTEC.
CAP161-CR-07	Immingham LLP CHP	Views unchanged from the Working Group consultation response. It is essential that existing rights are respected. The process for such a profound change is inadequate, necessitating the need for a full Impact Assessment to be carried out. Greater benefits with close to real time release. Would prefer to see an alternative where existing users are encouraged to release unused rights.
CAP161-CR-08	REA	In favour of the SO being able to release access, the benefit comes from usage by older plant. Would have preferred a day ahead 7 days a week product, but support the implementation of amendments proposed. Recognise the risk associated with zonal. The original and all WGAA's are better than the baseline, WGAA3 is best.

CAP161-CR-09	Rio Tinto Alcan	Concerned that the proposals may affect property rights. Unique nature of operations justifies different treatment.
CAP161-CR-10	ScottishPower	Support the Original and WGAAAs as part of an incremental change approach. Would prefer a Zonal approach, note the concerns, but a nodal approach may reduce utilisation. CLDTEC would be useful addition to 2 day ahead and 5 week ahead products.
CAP161-CR-11	Scottish Southern Energy and	Support for WGAA1. Concern regarding CLDTEC. Comments made to Working Group consultation stand. Lament over the level of analysis on usage, which would support a cost benefit analysis and better enable full assessment, also that Post Implementation Evaluation has not been set out. Concern about the provisions of investment signals. Concerned about the potential perverse outcome due to the treatment of negative zones and the Working Groups assessment in this area. Concern that permitting implementation expenditure prior to a decision is 'tantamount to fettering the Authority's discretion'.
CAP161-CR-12	Welsh Power	There are potential benefits to CAP161, providing access to the system whilst not increasing cost borne by others.

## 15.4 Comments on the Draft Amendment Report

15.4.1 Some minor non material comments were received, the supporting comment in Panel Recommendation was updated with the comments received.

**ANNEX 1 – PROPOSED LEGAL TEXT TO MODIFY THE CUSC**

**Text to give effect to the Working Group Alternative Amendment**

## **CAP 161 (Short Term Entry Rights & LCN): Summary Sheet of Proposed Amendments**

### **1. Overview of Changes**

1.1 The changes in the legal drafting that are being proposed to implement CAP 161 essentially consist in introducing the concept of Local Capacity Nomination (“LCN”) (which is common to CAP 161-163, 165 and 166) and the various short term products (CLDTEC, 2 Day Ahead SO Release and 5 Week Ahead SO Release) in the following sections of the CUSC (in particular Section 3).

1.2 The drafting does not provide for the original CAP 161 but caters for the three Working Group alternative amendments. These are:

- WGAA1 which should be read as the changes for LCN (shown highlighted turquoise) and the 2 day\5 week provisions (Appendix 3 to Section 3, paragraphs 7 and 8) and the methodology (Appendix 3 to Section 3, paragraph 6);
- WGAA2 which should be read as the changes for LCN (shown highlighted turquoise) and CLDTEC provisions in Appendix 3 to Section 3, paragraph 5 and the methodology in Appendix 3 to Section 3, paragraph 6 (highlighted green); and
- WGAA3, which is a combined version of WGAA1 and WGAA 2 and so should be read as the changes for LCN (shown highlighted turquoise) and the above new products (highlighted green).

1.3 In summary the drafting consists of changes to;

1. CUSC Section 2 (by summary)
2. CUSC Section 3 (by red line against existing sec)
3. CUSC Section 3, Appendix 3 (which is a new appendix)
4. CUSC Section 6 (by summary)
5. CUSC Section 9 (by summary)
6. CUSC Section 10 (transitional provisions to effectively deal with the “creation” of LCN)
7. CUSC Section 11 (by summary)
8. Schedule 2 Exhibit 1 (BCA) by redline
9. Schedule 2 Exhibit 2 (BEGA) by redline
10. Exhibit B (BCA Application) by redline

11. Exhibit C (BCA Offer) by redline
  12. Exhibit D (BEGA Application) by redline
  13. Exhibit E (BEGA Offer) by redline
  14. Exhibit XA (Shared access Capacity Rate Request Form) new exhibit (CAP 163 only)
- 1.4 If only some of the short term products proposed in CAP161 are approved, but the other modifications are approved, the sections dealing with the short term products that have not been approved, will be replaced with the words "Not Used" and the numbering in the attached sections of the CUSC will remain unaffected.
  - 1.5 The sections of the CUSC attached to this report, in particular section 3 and Appendix 3 to Section 3, show the combination of the proposed changes to implement the proposals of CAP 161 to 163. Therefore, when reading the attachments to this report from a CAP161 perspective, you should ignore the proposed changes that are highlighted in yellow (proposed changes for CAP 162) and light grey (proposed changes for CAP163).
  - 1.6 Should the proposals for CAP 162 (Entry Overrun) and/or CAP 163 (TEC Sharing) not be approved, the proposed provisions for CAP 162 and CAP 163 shall be replaced with the words "Not Used" and the numbering in the attached sections of the CUSC will remain unaffected.

## **Proposed Amendments to CUSC Section 2 under CAP 161 (LCN and Short Term Access Products), 162 (Entry Overrun) and 163 (TEC Sharing)**

**Please note** that the numbering of the respective paragraphs is given in the heading above each section of text (rather than given next to the paragraph text).

### ***Old paragraph 2.3(Export of Power from Connection Site)***

This paragraph has been deleted and an updated version of this paragraph has been moved to CUSC Section 3, which deals with use of system issues, Paragraph 3.2.2

### ***Old paragraph 2.4, now 2.3 (Import of Power to Connection Site)***

#### **1.1     ~~1.4~~ IMPORT OF POWER TO CONNECTION SITE**

Subject to the other provisions of the **CUSC** and in particular Paragraph 2.2.2(b), the relevant **Bilateral-Connection Agreement** and the **Grid Code**, **The Company** shall, as between **The Company** and ~~that User~~ **User acting in the category of a Non-Embedded Customer or a Public Distribution System Operator**, transport a supply of power to each **Connection Site** of a **User** through the **GB Transmission System** up to the **Connection Site Demand Capability** except to the extent (if any) that **The Company** is prevented from doing so by transmission constraints or by insufficiency of generation which, in either case, could not have been avoided by the exercise of **Good Industry Practice** by **The Company**.

### ***General - Renumbering***

Please note that as a result of the proposed amendments, the clause numbering has been changed in some instances (as identified in the paragraph headings, above). This has meant that cross-references throughout the document have changed, those changes have not been shown here, unless they appear in paragraphs with more substantial amendments.

## **CUSC - SECTION 3**

### **USE OF SYSTEM**

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## CUSC - SECTION 3

### USE OF SYSTEM

1. hidden

2. hidden

3. hidden INTRODUCTION

**3.1.1** This Section 3 deals with use of the **GB Transmission System** and certain related issues. Part I of this Section sets out general provisions (split into Parts A and B dealing with generation and supply), Part II sets out charging related provisions and Part III sets out the credit requirements related to **Use of System**. Depending on the category of connection and/or use of a **User**, the Section dealing with **Connection** (Section 2) may also be applicable.

**3.1.2** A User's Use of System may occur in one of the ways specified in Appendix 3 to Section 3 of the CUSC.

#### PART IA - GENERAL - GENERATION

This Part IA deals with Use of System rights and obligations relating to Power Stations directly Connected to the GB Transmission System, Embedded Power Stations, Small Power Station Trading Parties and to **Distribution Interconnectors**. References to "User" in this Part IA should be construed accordingly.

#### 3.2 1.2 RIGHTS TO USE THE GB TRANSMISSION SYSTEM

##### 3.2.1 1.2.1 Embedded Use of System

Subject to the other provisions of the **CUSC**, the **Grid Code** and the relevant Bilateral Connection Agreement or Bilateral Embedded Generation Agreement, and, for Users other than Power Stations directly connected to the GB Transmission System, subject to there continuing to be a **Distribution Agreement** with the owner/operator of the **Distribution System**, each **User**, as between **The Company** and that **User**, may in relation to each ~~of its Embedded generation—sites~~ **Node** and each of its **Distribution Interconnectors** transmit (or put, as the case may be) supplies of power on to and/or take supplies of power from the **GB Transmission System** as the case may be.

**3.2.2** Subject to the other provisions of the CUSC, the relevant Bilateral Connection Agreement or Bilateral Embedded Generation Agreement and the Grid Code, The Company shall, as between The Company and that User, accept into the GB Transmission System at the specified Node power generated by such User up to that User's LCN as set out in Appendix C of the relevant Bilateral Connection Agreement or Bilateral Embedded Generation Agreement except to the extent (if any) that The Company is prevented from doing so by transmission constraints which could not be avoided by the exercise of Good Industry Practice by The Company.

**3.2.3** Other than as provided in Paragraph 3.2.4, and subject to the other provisions of the CUSC, the relevant Bilateral Connection Agreement or Bilateral Embedded Generation Agreement and the Grid Code, each User, as between The Company and that User, shall not, operate its User's Equipment such that it exports on to the GB Transmission System power generated by such User in excess of its LCN as set out in Appendix C of the relevant Bilateral Connection Agreement or Bilateral Embedded Generation Agreement save as expressly permitted or instructed pursuant to an Emergency Instruction under the Grid Code or save as expressly permitted or instructed pursuant to the Fuel Security Code or as may be necessary or expedient in accordance with Good Industry Practice.

**3.2.4** Each User in respect of an Embedded Small Power Station and a Distribution Interconnector and as a Trading Party responsible for Embedded Small Power Stations, as between The Company and that User, shall not operate its User's Equipment or equipment for which the User is responsible (as defined in Section K of the Balancing and Settlement Code) such that its export of power onto the GB Transmission System exceeds the LCN set out in Appendix C to the relevant Bilateral Embedded Generation Agreement save as expressly permitted and instructed pursuant to the Fuel Security Code or as may be necessary or expedient in accordance with Good Industry Practice.

#### **Import of Power**

**3.2.5** Subject to the other provisions of the CUSC the relevant Bilateral Connection Agreement and the Grid Code, The Company shall, as between The Company and a User acting in the category of a Power Station directly connected to the GB Transmission System, transport a supply of power to each Connection Site of such a User through the GB Transmission System up to the Connection Site Demand Capability except to the extent (if any) that The Company is prevented from doing so by transmission constraints or by insufficiency of generation which, in either

case, could not have been avoided by the exercise of Good Industry Practice by The Company.

**3.2.6** ~~1.2.2~~ **Embedded Power Station and Distribution Interconnector Conditions**

- (a) The rights and obligations of a **User**, and **The Company** in connection therewith, are subject to the following conditions precedent having been fulfilled before such rights and obligations arise:
  - (i) the **User** having provided (in a form reasonably satisfactory to **The Company**) proof of having entered into a **Distribution Agreement** with the owner/operator of the **Distribution System**; and
  - (ii) in the case of an **Embedded Small Power Station The Company** having received satisfactory confirmation from the owner/operator of the **Distribution System** as to the running arrangements within the **Distribution System**;
  - (iii) in the case of an **Embedded Small, Medium and Large Power Station**, in relation to a **Small Power Station Trading Party** and in the case of a **Distribution Interconnector**, of the acceptance by the owner/operator of the **Distribution System** of any necessary **Modification Offer** relevant to the **Embedded Power Station or Distribution Interconnector** (as the case may be);
- (b) If the conditions precedent of ~~3.2.23.2.6~~3.2.6(a)(i) to (iii) have not been fulfilled in the case of ~~3.2.23.2.6~~3.2.6(a)(i) and ~~3.2.23.2.6~~3.2.6(a)(ii) within 6 months of the date of the relevant **Bilateral Embedded Generation Agreement** or in the case of ~~3.2.23.2.6~~3.2.6(a)(iii) within 3 months of the date of receipt by the owner/operator of the **Distribution System** of the **Modification Offer The Company** or the relevant **User** may rescind the relevant **Bilateral Embedded Generation Agreement** and any associated **Construction Agreement** by giving to the other notice to that effect in which event all rights and liabilities of the parties thereunder and under the **CUSC** in relation to relevant **Embedded Power Stations** or relevant **Distribution Interconnectors** shall cease.

~~1.2.3~~ Transmission Entry Capacity

- ~~(a) Other than as provided in Paragraph 3.2.3(b), each **User**, as between **The Company** and that **User**, shall not operate~~

~~its **User's Equipment** such that its export of power onto the **GB Transmission System** exceeds the **Transmission Entry Capacity** and (if any) **STTEC** and/or **LDTEC** and/or any **Temporary Received TEC** less any **Temporary Donated TEC** for the relevant **Period** set out in Appendix C to the relevant **Bilateral Embedded Generation Agreement** save as expressly permitted and instructed pursuant to an **Emergency Instruction** under the **Grid Code** or save as expressly permitted and instructed pursuant to the **Fuel Security Code** or as may be necessary or expedient in accordance with **Good Industry Practice**.~~

~~(b) Each **User** in respect of an **Embedded Small Power Station** and a **Distribution Interconnector** and as a **Trading Party** responsible for **Embedded Small Power Stations**, as between **The Company** and that **User**, shall not operate its **User's Equipment** or equipment for which the **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) such that its export of power onto the **GB Transmission System** exceeds the **Transmission Entry Capacity** and (if any) **STTEC** and/or **LDTEC** and/or any **Temporary Received TEC** less any **Temporary Donated TEC** for the relevant **Period** set out in Appendix C to the relevant **Bilateral Embedded Generation Agreement** save as expressly permitted and instructed pursuant to the **Fuel Security Code** or as may be necessary or expedient in accordance with **Good Industry Practice**.~~

~~3.2.4 Subject to the other provisions of the **CUSC** and the **Grid Code** and any relevant **Bilateral Agreement**, **The Company** shall, as between **The Company** and that **User**, accept into the **GB Transmission System** power generated by each **User** up to the **Transmission Entry Capacity** and (if any) **STTEC** and/or any **Temporary Received TEC** less any **Temporary Donated TEC** for the relevant **Period** set out in Appendix C of the relevant **Bilateral Connection Agreement** except to the extent (if any) that **The Company** is prevented from doing so by transmission constraints which could not be avoided by the exercise of **Good Industry Practice** by **The Company**.~~

### 3.2.7 Outages

Subject to the provisions of the **Grid Code**, **The Company** and each **User** (with **Plant** and/or **Apparatus**) shall, as between **The Company** and that **User**, be entitled to plan and execute outages of parts of in the case of **The Company**, the **GB Transmission System** or **Transmission Plant** or **Transmission Apparatus** and in the case of a **User**, its

**System or Plant or Apparatus**, at any time and from time to time.

~~3.2.5~~3.2.8 Commissioning

**The Company** agrees to assist the **User** (if requested by the **User**), with the commissioning and on-load testing of the **User's Equipment** or equipment for which the **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) and the **User** shall pay reasonable **The Company** Charges in connection therewith. The **User** must ensure the commissioning programme for the **User's Equipment** or equipment for which the **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) at the site of connection agreed between the **User** and the owner/operator of the **Distribution System** contains adequate provisions in respect of the timing of commissioning to ensure that the **User** can be in receipt of an **Operational Notification** before or during (as appropriate) the said commissioning programme.

~~3.2.6~~3.2.9 Operational Notification

Upon compliance by the **User** with the provisions of Paragraph ~~3.2.2~~3.2.6(a) after the commissioning programme in Paragraph ~~3.2.6~~3.2.8 and subject, if **The Company** so requires, to **Transmission Reinforcement Works** being carried out and/or notification by the **User** that the site of connection of the **User's Equipment** or equipment for which the **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) to the **Distribution System** is operational (any or all as appropriate) **The Company** shall forthwith notify ("**Operational Notification**") the **User** in writing that it has the right to use the **GB Transmission System**. It is an express condition of the **CUSC** that in no circumstances will the **User** use or operate the **User's Equipment** or **Equipment** for which the **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**) without receiving this **Operational Notification**.

3.3 ~~1.3~~ **OTHER SITE SPECIFIC TECHNICAL CONDITIONS FOR EMBEDDED POWER STATIONS AND DISTRIBUTION INTERCONNECTORS**

3.3.1 ~~1.3.1~~

- (a) **The Company** and each **User** shall, as between **The Company** and that **User**, operate respectively the **GB**

**Transmission System** and the **User System** with the special automatic facilities and schemes set out in Appendix F3 to the relevant **Bilateral Embedded Generation Agreement**.

- (b) Each **User** shall ensure the **User's Equipment** complies with the site specific technical conditions set out in Appendix F4 to the relevant **Bilateral Embedded Generation Agreement**.
- (c) Each **User** shall use all reasonable endeavours to ensure during the period of the relevant **Bilateral Embedded Generation Agreement** that the **User's Equipment** shall continue to comply with the site specific technical conditions set out in Appendix F5 to the relevant **Bilateral Embedded Generation Agreement**.

**3.3.2** ~~1.3.2~~ If a **User** or **The Company** wishes to modify, alter or otherwise change the site specific technical conditions or the manner of their operation under Appendices F1, F3, F4 or F5 to the relevant **Bilateral Embedded Generation Agreement** this shall be deemed to be a **Modification** for the purposes of the **CUSC**.

**3.3.3** ~~1.3.3~~ Where in the case of a site **Commissioned** in England and Wales prior to the **Transfer Date**, on or immediately prior to the **Transfer Date** a **User's Equipment** subject to a **Bilateral Embedded Generation Agreement** has any of the following technical attributes or facilities:

- (a) control arrangements
- (b) voltage and current signals for system monitoring
- (c) control telephony
- (d) operational metering

the **User** shall, as between **The Company** and that **User**, use all reasonable endeavours to ensure that during the period of such **Bilateral Agreement** the **User's Equipment** which is subject to that **Bilateral Agreement** retains such technical attributes or facilities provided always that if the **User** wishes to modify, alter or otherwise change the same or their operation it may do so by following the procedures relating to a **Modification** in accordance with the **CUSC**.

## **PART IB - GENERAL - SUPPLY**

This Part IB deals with rights and obligations relating to **Suppliers** generally and, in relation to certain provisions, to **Suppliers** supplying **Non-Embedded Customers**. References to “**User**” in this Part IB should be construed accordingly.

### 3.4 ~~1.4~~ **RIGHTS TO USE THE GB TRANSMISSION SYSTEM**

3.4.1 ~~1.4.1~~ Subject to the other provisions of the **CUSC** and the **Grid Code**, each **User**, as between **The Company** and that **User**, may take supplies of power from the **GB Transmission System**.

3.4.2 ~~1.4.2~~ Subject to the provisions of the **CUSC** and the **Grid Code**, **The Company** shall, as between **The Company** and that **User**, transport a supply of power through the **GB Transmission System** to the level forecast by the **User** from time to time pursuant to the **Data Requirements** set out in Part IIB of this Section 3 submitted by that **User** together with such margin as **The Company** shall in its reasonable opinion consider necessary having due regard to **The Company** 's duties under the **Transmission Licence** except to the extent (if any) that **The Company** is prevented from doing so by transmission constraints or by insufficiency of generation which, in either case, could not have been avoided by the exercise of **Good Industry Practice** by **The Company**.

3.4.3 ~~1.4.3~~ Subject to the provisions of the **Grid Code**, **The Company** shall be entitled to plan and execute outages of parts of the **GB Transmission System** or **Transmission Plant** or **Transmission Apparatus** at any time and from time to time.

### 3.5 ~~1.5~~ **SUPPLIER CUSTOMER DETAILS**

3.5.1 ~~1.5.1~~ Each **User** shall, as between **The Company** and that **User**, give written notice to **The Company** of the following details of all exit points from time to time in existence between any **Distribution System** and the **User**'s customer:-

- (a) the electrical location and nomenclature of the **Energy Metering Equipment** installed in relation to each such customer;
- (b) the identity of the operator of the **Distribution System** to which such customers are connected;
- (c) the **Grid Supply Point** and **Transmission Network Use of System Demand Zone** meeting the **Demand (Active Power)** of each customer;
- (d) the loss factors applying to the **Energy Metering Equipment** installed in relation to each such customer,

save where the **User's** customer is connected to a **Distribution System** owned by a **Public Distribution System Operator** in which case the **Public Distribution System Operator's** published statement of loss factors shall apply.

Such written notice shall be given to **The Company** no later than 28 days prior to the commencement or cessation of use of any such exit point. If the **Grid Supply Point** referred to in (c) changes the **User** shall notify **The Company** forthwith after being notified of such change by the **Public Distribution System Operator** in question. If **The Company's** basis of charging changes pursuant to the **Charging Statements** or, subject thereto, Parts II and III below at any time, **The Company** shall be entitled to ask for other information it reasonably requires for charging purposes under this Paragraph 3.5.

3.5.2 ~~1.5.2~~ **CUSC Parties** agree that, insofar as **The Company** has alternative reasonable means of obtaining this information then Paragraph 3.5.1 shall not apply.

### 3.6 ~~1.6~~ **SUPPLIERS OF NON-EMBEDDED CUSTOMERS**

3.6.1 ~~1.6.1~~ This Paragraph 3.6 relates specifically to the position of a **Supplier** in respect of its supply of electricity to a **Non-Embedded Customer**. Insofar as the provisions of this Paragraph 3.6 conflict with any other provision of this Section 3 dealing with an equivalent issue, the provisions of this Paragraph 3.6 shall prevail in relation to such a category.

3.6.2 ~~1.6.2~~ In the case of such a **User**, subject to the provisions of the **CUSC** and the **Grid Code**, **The Company** shall transport a supply of power through the **GB Transmission System** to the **Connection Site** of the **Non-Embedded Customer** to the level forecast by the **User** from time to time pursuant to the **Data Requirements** set out in Part IIB of this Section 3 submitted by that **User** together with such margin as **The Company** shall in its reasonable opinion consider necessary having due regard to **The Company's** duties under the **Transmission Licence** except to the extent (if any) that **The Company** is prevented from doing so by transmission constraints or by insufficiency of generation which, in either case, could not have been avoided by the exercise of **Good Industry Practice** by **The Company**.

3.6.3 ~~1.6.3~~ The right in 3.6.2 above is subject to:

- (a) the **User** being authorised by a current **Supply Licence** to supply electricity to the premises to be supplied with electricity through the **Connection Site**; and

- (b) there being a subsisting **Bilateral Connection Agreement** with the **Non-Embedded Customer** for the **Connection Site**.

**3.6.4** ~~1.6.4~~—Where **The Company** agrees, the **Supplier** of a **Non-Embedded Customer** may be liable for payment of **Connection Charges** in relation to the **Metering Equipment** of a **Non-Embedded Customer**. The existence of such an arrangement shall be reflected in the relevant **Bilateral Connection Agreement** with the **Non-Embedded Customer** and the **Use of System Supply Confirmation Notice**. Where such an arrangement exists, the provisions of Section 2 Part II in relation to such charges shall be deemed incorporated within this Paragraph 3.6.4 and the **Supplier** shall comply with those provisions in relation to such charges as if references to the **User** were references to the **Supplier**.

**3.6.5** ~~1.6.5~~—The **User** acknowledges that breach of the provisions of the **CUSC** by the **Non-Embedded Customer** may give rise to **Deenergisation** of the **Non-Embedded Customer's Connection Site** pursuant to Section 5.

**3.6.6** ~~1.6.6~~—The **User** acknowledges that site specific technical conditions as provided for in Paragraphs 2.7 to 2.9 of the **CUSC** may apply between **The Company** and a **Non-Embedded Customer** at a **Connection Site**.

**3.6.7** ~~1.6.7~~—**The Company** shall be entitled to **Deenergise** the **Non-Embedded Customer's Equipment** at any **Connection Site** when instructed to do so by the **Non-Embedded Customer** in accordance with the terms of its **Bilateral Connection Agreement** or the **CUSC**.

**3.6.8** ~~1.6.8~~—Where the **Supplier** supplying the **Connection Site** has informed **The Company** that it has received an order or direction from the Secretary of State for Energy under the Energy Act 1976 or the **Act**, requiring it to cease supplying the **Non-Embedded Customer** with electricity and instructs **The Company** to **Deenergise** the **Non-Embedded Customer's User's Equipment** at the **Connection Site**, **The Company** shall as soon as reasonably practicable **Deenergise** the **Non-Embedded Customer's User's Equipment** at the **Connection Site** (unless **The Company** considers that it is not reasonably practicable, whether on technical grounds or otherwise, to effect such **Deenergisation**) and if it does **Deenergise**, shall promptly notify the **User** of the date and time at which such **Deenergisation** was effected. The **User** shall reimburse **The Company** any expense incurred in relation to such **Deenergisation**, if any, and shall indemnify **The Company** against any costs, liability, loss or damage suffered by **The Company** as a result of such **Deenergisation**.

### **3.7** ~~1.7~~ **USE OF SYSTEM APPLICATION**

**3.7.1** ~~1.7.1~~ If a **User** wishes to use the **GB Transmission System** in a category of use which does not include connection to the **GB Transmission System**, it shall complete and submit to **The Company** a **Use of System Application** and comply with the terms thereof.

**3.7.2** ~~1.7.2~~ Without prejudice to Standard Condition C8 of the **Transmission Licence** **The Company** shall make a **Use of System Offer** to that **User** as soon as practicable after receipt of the **Use of System Application** and (save where the **Authority** consents to a longer period) in any event not more than 28 days after receipt by **The Company** of the **Use of System Application**.

**3.7.3** ~~1.7.3~~ The **Use of System Offer** shall in the case of an application relating to an **Embedded Power Station** or to a **Small Power Station Trading Party** or to a **Distribution Interconnector** be in the form of a **Bilateral Embedded Generation Agreement** together with any **Construction Agreement** relating thereto. In the case of a **Supplier**, it shall be in the form of a **Use of System Supply Offer Notice**. The provisions of Standard Condition C8 shall apply to an application by a **Supplier** as if the **Use of System Supply Offer and Confirmation Notice** was an agreement for the purposes of that condition.

**3.7.4** ~~1.7.4~~ The **Use of System Offer** shall remain open for acceptance for 3 months from its receipt by that **User** unless either that **User** or **The Company** makes an application to the **Authority** under Standard Condition C9 of the **Transmission Licence**, in which event the **Use of System Offer** shall remain open for acceptance until the date 14 days after any determination by the **Authority** pursuant to such application.

**3.7.5** ~~1.7.5~~ Upon acceptance of the **Use of System Offer** (as offered by **The Company** or determined by the **Authority**) by the **User** and execution by **The Company** of the **Bilateral Embedded Generation Agreement** or the issuing by **The Company** of a **Use of System Supply Confirmation Notice**, as the case may be, the **User** shall have the right to use the **GB Transmission System**. Such right shall continue until the **Bilateral Embedded Generation Agreement** is terminated or a **Use of System Termination Notice** is submitted pursuant to Paragraph 3.8.

**3.7.6** ~~1.7.6~~ Such rights shall be conditional upon the **Applicant**, if it is not already a party to the **CUSC Framework Agreement**, becoming a party to the **CUSC Framework Agreement**.

3.7.7 In the event that the **User** requests a **Use of System Offer** in the form of a **Bilateral Embedded Generation Agreement** on the basis of a **Design Variation** then:

- (i) **The Company** shall only be obliged to provide such an offer in so far as such an offer satisfies the conditions detailed in Chapter 3 of the **GB SQSS**; and

- (ii) **The Company** shall be obliged, at the request of the **User** as part of the **Use of System Offer**, to provide such information that the **User** may reasonably require in order to assess the probability of **Notification of Restrictions on Availability** being issued. For the avoidance of doubt, the information that is provided by **The Company** under this clause shall be a best estimate only and is not legally binding.

3.7.8 ~~For the avoidance of doubt, the provisions of this Paragraph 3.7 of Section 3 of the CUSC shall not apply to a User's application for a Short Term Access Product or Shared Access Capacity in accordance with Appendix 3 of Section 3 of the CUSC.~~

### 3.8 ~~1.8~~ — **TERMINATION PROVISIONS**

3.8.1 ~~1.8.1~~ Provisions relating to **Disconnection** relating to **Users** who have **Bilateral Embedded Generation Agreements** are dealt with in Section 5.

3.8.2 ~~1.8.2~~ In addition to the provisions in Section 5, this paragraph deals with termination of the right to use the system in respect of a **Supplier** who in that category of connection and/or use has no physical presence on the **System** and with a specific additional provision for the **Supplier** of a **Non-Embedded Customer**.

3.8.3 (a) A **Supplier** may terminate its use of the **GB Transmission System** by giving **The Company** a **Use of System Termination Notice** not less than 28 days prior to such termination of use.

(b) If a **Use of System Termination Notice** is given under this Section 3, the right to use the **GB Transmission System** shall cease upon the termination date in the **Use of System Termination Notice**.

(c) Prior to cessation of use by a **User** under this Paragraph, the **User** shall pay **The Company** all **Use of System Charges** payable by it under Section 3 in respect of the **Financial Year** in which the cessation takes place.

3.8.4 In addition, in the case of a **User** in its category of connection and/or use as a **Supplier** of a **Non-Embedded Customer** the use of the **GB Transmission System** in respect of the **Connection Site** shall cease upon either **Disconnection** of the **User's Equipment** of the **Non-Embedded Customer** or termination of the **Bilateral Connection Agreement** in respect of that **Connection Site**.

## PART II - USE OF SYSTEM CHARGES

### PART IIA - GENERAL

#### 3.9 ~~1.9~~ USE OF SYSTEM CHARGES

##### General Liability to pay Use of System Charges

3.9.1 ~~1.9.1~~ Subject to the provisions of the **CUSC**, and any relevant **Bilateral Agreement**, together with the relevant **Charging Statements**, each **User** shall with effect from the relevant date set out in the relevant **Bilateral Agreement** (or in the **Use of System Supply Confirmation Notice**) be liable to pay to **The Company** the **Use of System Charges** in accordance with the **CUSC** calculated in accordance with the **Statement of Use of System Charges** and the **Statement of the Use of System Charging Methodology** and Standard Condition C13 of the **Transmission Licence**. **The Company** shall apply and calculate the **Use of System Charges** in accordance with the **Statement of Use of System Charges** and the **Statement of the Use of System Charging Methodology** and Standard Condition C13 of the **Transmission Licence**.

##### Liability for payment of Transmission Network Use of System Charges

3.9.2 ~~1.9.2~~ Each **User** shall, as between **The Company** and that **User**, in accordance with this Part II and Paragraph 6.6, be liable to pay to **The Company** (or **The Company** shall be so liable to pay to the **User**) the **Transmission Network Use of System Charges** ~~Charges and (if appropriate) the STTEC and LDTEC Charge Charges~~ respect of its use of the **GB Transmission System** applied and calculated in accordance with the **Statement of Use of System Charges** and **Statement of the Use of System Charging Methodology** and Standard Condition C13 of the **Transmission Licence**.

##### Liability for Short Term Access Product Charges

3.9.3 Each **User** shall, as between **The Company** and that **User**, in accordance with this Part II and Paragraph 6.6 and Appendix 3 to this Section 3, be liable where appropriate to pay to **The Company** the **Short Term Access Product Charges** in respect of its use of the **GB Transmission System** applied and calculated in accordance with the **Statement of Use of System Charges**, **Statement of the Use of System Charging Methodology** [and Appendix 3] and Standard Condition C13 of the **Transmission Licence**.

##### Liability for payment of Entry Overrun Charges

**3.9.4** Each User shall, as between The Company and that User, in accordance with this Part II and Paragraph 6.6 and Appendix 3, be liable where appropriate to pay to The Company (or The Company shall be so liable to pay to the User) Entry Overrun Charges in respect of its use of the GB Transmission System over and above its Access Capacity applied and calculated in accordance with the Statement of Use of System Charges and Statement of the Use of System Charging Methodology and Standard Condition C13 of the Transmission Licence.

#### Liability for Balancing Services Use of System Charges

**3.9.5** ~~1.9.3~~ Except in respect of **Distribution Interconnector Owners** each User shall, as between **The Company** and that **User**, in accordance with this Part II and Paragraph 6.6, be liable to pay to **The Company** in respect of each **Settlement Day** the **Balancing Services Use of System Charges** calculated in accordance with the **Statement of the Use of System Charging Methodology**.

#### Provision of Security

**3.9.6** ~~1.9.4~~ Each **User** shall, as between **The Company** and that **User**, provide **The Company** with **Security Cover** in respect of **Transmission Network Use of System Demand Reconciliation Charges, Transmission Services Use of System Charges and, Balancing Services Use of System Charges, Short Term Access Products Charges and Entry Overrun Charges** in accordance with Part III below and Appendix 3 to this Section 3 of the CUSC.

**3.9.7** ~~1.9.5~~ The charges payable in relation to use of the **GB Transmission System** may also include **One-off Charges** where those are to be payable by the relevant **User** as provided in the relevant **Bilateral Embedded Generation Agreement**. In that case, the relevant provisions of Section 2 will apply to that **User** in relation to the **One-off Charges**.

### PART IIB – TRANSMISSION NETWORK USE OF SYSTEM CHARGES

#### 3.101.10 — DATA REQUIREMENTS

##### General Submission of Data

**3.10.1** ~~1.10.1~~ On or before the end of the second week of December in each **Financial Year**, each **User** shall supply **The Company** with such data as described under Section 3.10 as **The Company** may from time to time reasonably request to enable **The Company** to calculate the tariffs for the **Transmission Network Use of System Charges** pursuant to the **Charging Statements** for the **Financial Year** to which the data relates.

**3.10.2** ~~1.10.2~~ On or before the 10<sup>th</sup> day of March in each **Financial Year**, each **User** shall supply **The Company** on **The Company's** reasonable request with its **Demand Forecast** for the following **Financial Year** pursuant to the **Charging Statements** to enable **The Company** to use such **Demand Forecast** as the basis for calculation of the **Transmission Network Use of System Charges** for the **Financial Year** to which the **Demand Forecast** relates.

**3.10.3** ~~1.10.3~~ In the event that a **User** fails to provide a **Demand Forecast** in accordance with Paragraph 3.10.2 above the **User** shall be deemed to have submitted as its **Demand Forecast** the last **Demand Forecast** supplied under Paragraph 3.11.1.

**3.10.4** ~~1.10.4~~ Where a **Use of System Supply Confirmation Notice** is completed during a **Financial Year**, the **User** shall supply **The Company**, with its **Demand Forecast** for that **Financial Year** on or before the 10<sup>th</sup> day of the month following completion of the **Use of System Supply Confirmation Notice**.

#### Provision of TEC Forecast

**3.10.5** ~~1.10.5~~ On or before the end of the second week in December in each **Financial Year**, each **User** that is liable for generation **Use of System Charges** in accordance with Paragraph 3.9 of the CUSC shall supply **The Company** with a forecast maximum **TEC** for the following year, to inform **The Company** of the forecast generation to be used for the purposes of setting TNUOs Tariffs.

#### Provision of LCN Forecast

**3.10.6** On or before the end of the second week in December in each Financial Year, each User that is liable for generation Use of System Charges in accordance with Paragraph 3.9 of the CUSC shall supply The Company with a forecast maximum LCN for the following year, to inform The Company of the forecast generation to be used for the purposes of setting TNUOs Tariffs.

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### ~~3.11~~**1.11** VARIATION OF FORECASTS DURING THE FINANCIAL YEAR

**3.11.1** ~~1.11.1~~ Each **User** shall notify **The Company** of any revision to its **Demand Forecast** at least quarterly or at such intervals as may be agreed between **The Company** and the **User** from time to time.

**3.11.2** ~~1.11.2~~ Subject to Paragraph 3.12, **The Company** shall revise the **Transmission Network Use of System Charges** payable by a **User** to take account of any revised **Demand Forecast** and shall commence charging the revised **Transmission Network Use of System Charges** from the first day of the month following the month in which such revised **Demand Forecast** was received provided always that such **Demand Forecast** is provided before the 10<sup>th</sup> day of such month.

### **3.12 VALIDATION OF DEMAND FORECASTS**

3.12.1 The **Demand Forecast** shall represent a **User's** reasonable estimate of its **Demand**.

3.12.2 **The Company** shall notify the **User** in the event that the **Transmission Network Use of System Charges** due from the **User** to **The Company** or from **The Company** to the **User** (as the case may be) calculated by **The Company** using the **Demand Forecast** differ by more than 20% from that calculated by **The Company** using **The Company's** forecast **Demand** as provided for in the **Charging Statements**.

3.12.3 In the event that **The Company** does not receive a satisfactory explanation for the difference between the **Demand Forecast** and **The Company's** forecast **Demand** or a satisfactory revised **Demand Forecast** from the **User** within 5 **Business Days** of such notice then **The Company** shall be entitled to invoice a **User** for **Transmission Network Use of System Charges** calculated on the basis of **The Company** forecast **Demand**.

3.12.4 Any dispute regarding a **Demand Forecast** or the resulting **Transmission Network Use of System Charges** shall be a **Charging Dispute**.

### **3.13 RECONCILIATION STATEMENTS**

#### Calculation of Initial Reconciliation

3.13.1 On or before 30 June in each **Financial Year**, **The Company** shall promptly calculate in accordance with the **Statement of the Use of System Charging Methodology** and the **Statement of Use of System Charges** the **Demand** related or generation related **Transmission Network Use of System Charges** (as the case may be) that would have been payable by the **User** during each month during the preceding **Financial Year (Actual Amount)**. **The Company** shall then compare the **Actual Amount** with the amount of **Demand** related or generation related **Transmission Network Use of System Charges** (as the case may be) paid each month during the

preceding **Financial Year** by the **User** (the “**Notional Amount**”).

Generation Reconciliation

- 3.13.2 As soon as reasonably practicable and in any event by 30 April in each **Financial Year The Company** shall prepare a generation reconciliation statement (the “**Generation Reconciliation Statement**”) in respect of generation related **Transmission Network Use of System Charges** and send it to the **User**. Such statement shall specify the **Actual Amount** and the **Notional Amount** of generation related **Transmission Network Use of System Charges** for each month during the relevant **Financial Year** and, in reasonable detail, the information from which such amounts were derived and the manner in which they were calculated.
- 3.13.3 Together with the **Generation Reconciliation Statement, The Company** shall issue a credit note in relation to any sums shown by the **Generation Reconciliation Statement** to be due to the **User** or an invoice in respect of sums due to **The Company** and in each case interest thereon calculated pursuant to Paragraph 3.13.6 below.

Initial Demand Reconciliation Statement

- 3.13.4 As soon as reasonably practicable and in any event by 30 June in each **Financial Year The Company** shall then prepare an initial **Demand** reconciliation statement (the “**Initial Demand Reconciliation Statement**”) in respect of **Demand** related **Transmission Network Use of System Charges** and send it to the **User**. Such statement shall specify the **Actual Amount** and the **Notional Amount** of **Demand** related **Transmission Network Use of System Charges** for each month during the relevant **Financial Year** and, in reasonable detail, the information from which such amounts were derived and the manner in which they were calculated.
- 3.13.5 Together with the **Initial Demand Reconciliation Statement The Company** shall issue a credit note in relation to any sum shown by the **Initial Demand Reconciliation Statement** to be due to the **User** or an invoice in respect of sums due to **The Company** and in each case interest thereon calculated pursuant to Paragraph 3.13.6.

3.13.6 General Provisions

- (a) Invoices issued under paragraphs 3.13.3 and 3.13.5 above and 3.13.8 (b) below shall be payable within 30 days of the date of the invoice.
- (b) Interest on all amounts due under this Paragraph 3.13 shall be payable by the paying **CUSC Party** to the other on such amounts from the date of payment applicable to

the month concerned until the date of actual payment of such amounts and such interest shall be calculated on a daily basis at a rate equal to the **Base Rate** during such period.

### 3.13.7 Final Reconciliation Statement

- (a) **The Company** shall as soon as reasonably practicable following receipt by it of the **Final Reconciliation Settlement Run** or **Final Reconciliation Volume Allocation Run** as appropriate in respect of the last **Settlement Day** in each **Financial Year** issue a further **Demand** reconciliation statement (the “**Final Demand Reconciliation Statement**”) in respect of **Demand** related **Transmission Network Use of System Charges** payable in respect of each month of that **Financial Year** showing:-
- (i) any change in the **Demand** related **Transmission Network Use of System Charges** from those specified in the **Initial Demand Reconciliation Statement** provided in accordance with Paragraph 3.13.4;
  - (ii) whether the change represents a reconciliation payment owing by **The Company** to a **User** or by a **User** to **The Company**;
  - (iii) the amount of interest determined in accordance with Paragraph 3.13.6 above; and
  - (iv) the information from which the amounts in (i) above are derived and the manner of their calculation.
- (b) Together with the **Final Demand Reconciliation Statement** **The Company** shall issue a credit note in relation to any sum shown in the **Final Demand Reconciliation Statement** to be due to the **User** or an invoice in respect of sums due to **The Company** and in each case interest thereon calculated pursuant to Paragraph 3.13.6.
- (c) Payment of any invoice issued pursuant to Paragraph 3.13.7(b) above or the application of any credit note issued pursuant to that paragraph against any liability of the **User** to **The Company** for **Demand** related **Transmission Network Use of System Charges** will be in full and final settlement of all **Demand** related **Transmission Network Use of System Charges** for the **Financial Year** to which the invoice or credit note relates provided that nothing in this Paragraph 3.13.8(c) shall

affect the rights of the parties under the provisions of Paragraph 7.3.5.

- 3.13.8 The right to submit **Generation Reconciliation Statements, Initial Demand Reconciliation Statements and Final Demand Reconciliation Statements** and the consequential invoices and/or credit notes shall survive the termination of the **User's** rights under the **CUSC** and the parties agree that the provisions contained in Paragraphs 3.13 and 3.14 shall continue to bind them after such termination (the version in existence at the date of termination being the applicable version in the case of any amendments).

### 3.14 REVISION OF CHARGES

- 3.14.1 Pursuant to the **Transmission Licence** and/or the **CUSC** and/or the **Charging Statements** and/or the **Bilateral Agreements** **The Company** may revise its **Transmission Network Use of System Charges, Short Term Access Products Charges and/or Entry Overrun Charges** or the basis of their calculation. Where **The Company** proposes a change to the **Transmission Network Use of System Charges, Short Term Access Products Charges and/or Entry Overrun Charges** then it shall notify the **User** as soon as practicable after the proposal is made to the **Authority** pursuant to the **Transmission Licence**.
- 3.14.2 The **User** acknowledges that due to the timescales associated with the replacement of the **Pooling and Settlement Agreement** with the **Balancing and Settlement Code**, **The Company** was prevented from providing the **User** with notice pursuant to Clause 2.1 of Part 1 of Appendix E (as in force on the day prior to the **NETA Go-live Date**) of the basis of calculation of **Transmission Network Use of System Charges** from the **NETA Go-live Date** until the end of the **Financial Year** in which the **NETA Go-live Date** occurred. However, the **User** further acknowledges that **The Company** consulted with the **User** prior to the **NETA Go-live Date** on **Transmission Network Use of System Charges** to apply from the **NETA Go-live Date** until the end of the **Financial Year** in which the **NETA Go-live Date** occurred. The **User** hereby agrees to pay **Transmission Network Use of System Charges** in respect of the **Financial Year** in which the **NETA Go-live Date** occurred in accordance with the principles notified by **The Company** prior to the **NETA Go-live Date**.
- 3.14.3 Subject to paragraph 3.14.4 below, **The Company** shall give the **User** not less than two months prior written notice of any revised **Transmission Network Use of System Charges, Short Term Access Products Charges and/or Entry Overrun**

**Charges** which notice shall specify the date upon which such revisions become effective (which may be at any time) and will make reference to the new tariffs set out in the relevant **Charging Statements**. The **User** shall pay any such revised charges from the effective date.

- 3.14.4 Where in accordance with the **Transmission Licence**, the **Authority** determines a shorter period than 2 months for the implementation of revised charges, the notice period will be determined by the **Authority**. The notice will specify when the new charges are effective and the **User** shall pay any such revised charges from the effective date.

## **PART IIC - BALANCING SERVICES USE OF SYSTEM CHARGES**

### **3.15 INTRODUCTION**

- 3.15.1 Under the terms of the **CUSC** each **User** except in the case of **Distribution Interconnector Owners** is liable to pay **Balancing Services Use of System Charges**. The basis upon which **Balancing Services Use of System Charges** are levied and the calculation methodology and rules which will be used to quantify those charges are set out in the **Statement of the Use of System Charging Methodology**.

#### 3.15.2 Balancing Services Use of System Charges

Notwithstanding the provisions of Paragraphs 6.6.1 and 6.6.2 the following provisions shall apply to the payment of the **Balancing Services Use of System Charges**.

- (a) **The Company** shall not later than 17.00 hours on the relevant **Notification Date** (and if this is not practicable as soon as possible thereafter as **The Company**, acting reasonably, considers is practicable) despatch an advice notice to the **User** in respect of the **Settlement Day** in relation to which the **Balancing Services Use of System Charges** are due on the relevant **Payment Date**.
- (b) The information on the advice notice in respect of each **Settlement Day** shall include the name of the **User** and the total amount payable to **The Company** in respect of **Balancing Services Use of System Charges** and in all cases together with any **Value Added Tax** thereon during each **Settlement Day**.
- (c) **The Company** shall, within a reasonable time thereafter provide a valid **Value Added Tax** invoice in

respect of **Balancing Services Use of System Charges** identified on the advice note.

- (d) The **User** shall pay the **Balancing Services Use of System Charges** specified in the advice notice together with the **Value Added Tax** thereon to **The Company** no later than 12.30 hours on the **Payment Date** specified on the advice note in respect of such **Settlement Date** as if they were payments made in the manner specified in Paragraph 6.6.3.

### 3.16 RECONCILIATION

3.16.1 As soon as reasonably practicable after receipt by **The Company** of the **Final Reconciliation Volume Allocation Run** in respect of a **Settlement Day** **The Company** shall prepare and submit to each **User** a statement (which may form part of an invoice or other document) calculated in accordance with the data specified in the **Statement of the Use of System Charging Methodology** in respect of that **Settlement Day** ("**Balancing Services Use of System Reconciliation Statement**"), showing the new value (if any) of data (as specified in the **Statement of the Use of System Charging Methodology** in force on that **Settlement Day**) attributable to the **User** in respect of such **Settlement Day** and the amount of **Balancing Services Use of System Charges** payable by the **User** on the basis of the new value (the "**Reconciled Charge**").

3.16.2 In the event that:

- (a) the **Reconciled Charge** exceeds the **Balancing Services Use of System Charges** paid by the **User** in respect of that **Settlement Day** ("**Initial Charge**") **The Company** shall at its option either:
  - (i) send to the **User** as soon as reasonably practicable after issue of the **Balancing Services Use of System Reconciliation Statement** an invoice for the amount by which the **Reconciled Charge** exceeds the **Initial Charge** and interest thereon calculated in accordance with the provisions set out in Paragraph 3.16.3; or
  - (ii) include such amount in another invoice in respect of **Balancing Services Use of System Charges** to the **User**.
- (b) the **Reconciled Charge** is less than the **Initial Charge** **The Company** shall at its option either:-

- (i) send to the **User** as soon as reasonably practicable after issue of the **Balancing Services Use of System Reconciliation Statement** a credit note for the amount by which the **Initial Charge** exceeds the **Reconciled Charge** and interest thereon calculated in accordance with the provisions set out in Paragraph 3.16.3; or
- (ii) include such amount as a credit in an invoice in respect of **Balancing Services Use of System Charges** from **The Company** to the **User**.

3.16.3 Interest payable in respect of each reconciliation payment shall accrue from and including the relevant **Use of System Payment Date** up to but excluding the date upon which the amounts specified in the **Balancing Services Use of System Reconciliation Statement** are paid, and shall be at a rate equal to the **Base Rate** for the time being and from time to time. Interest shall accrue from day to day.

3.16.4 If **The Company** receives written notice from any **User** or from the relevant **BSC Agent** that an error has occurred in any data forming part of or used within the **Initial Volume Allocation Run** which affects the costs to **The Company** of offers and bids in the **Balancing Mechanism** accepted by **The Company** in respect of any **Settlement Day**, and that error has been ratified in accordance with the procedures for ratification set out in the **Balancing and Settlement Code** it shall use its reasonable endeavours to, as soon as reasonably practicable after receipt of such notice, issue a dispute reconciliation statement ("**Dispute Statement**") to the **User** in respect of that **Settlement Day**.

3.16.5 Any **Dispute Statement** issued pursuant to Paragraph 3.16.4 above shall show the amount of **Balancing Services Use of System Charges** payable by the **User** on the basis of the ratified data.

3.16.6

- (a) In the event that the amount shown in any **Dispute Statement** exceeds the aggregate amount paid by the **User** in respect of the **Settlement Day** to which the **Dispute Statement** relates under any invoices issued pursuant to Paragraph 3.15.2 and Paragraph 3.16.2 above (after taking into account any credit notes issued) **The Company** shall submit to the **User** a further invoice for such excess and interest thereon calculated in accordance with Paragraph 3.16.3;

- (b) In the event that the amount shown in any **Dispute Statement** is less than the aggregate amount paid by the **User** in respect of the **Settlement Day** to which the **Dispute Statement** relates under any invoices issued pursuant to Paragraph 3.15.2 and Paragraph 3.16.2 above (after taking into account any credit notes issued) **The Company** shall submit to the **User** a credit note for the amount by which the amount paid exceeds the amount shown in the **Dispute Statement** together with interest thereon calculated in accordance with Paragraph 3.16.3.

3.16.7 If at any time prior to receipt by **The Company** of the **Final Reconciliation Volume Allocation Run** in respect of a **Settlement Day** **The Company** receives written notice from any **User** or the relevant **BSC Agent** of an error occurring in any data forming part of or used within the **Initial Volume Allocation Run** or the **Reconciliation Volume Allocation Run** which in either case affects the data (as specified in the **Statement of the Use of System Charging Methodology**) used in the calculation of **Balancing Services Use of System Charges** for that **Settlement Day**, which error:-

- (a) is not taken into account in the **Final Reconciliation Volume Allocation Run**; and
- (b) has been ratified in accordance with the procedures for ratification set out in the **Balancing and Settlement Code**,

then **The Company** shall use its reasonable endeavours to prepare the **Balancing Services Use of System Reconciliation Statement** on the basis of the ratified data.

3.17 The right to submit **Balancing Services Use of System Reconciliation Statements** and **Dispute Statements** and the consequential invoices and/or credit notes shall survive the termination of the **User's** rights under the **CUSC** and the parties agree that the provisions of this Part II shall remain in full force and effect and shall continue to bind them after such termination (the version in existence as at the date of termination being the applicable version, in the case of any amendments).

3.18 **The Company** and each **User** hereby agree and acknowledge that the provisions of Part IIC will apply to all **Balancing Services Use of System Charges** payable in respect of any **Settlement Day** on or after the **NETA Go-live Date**. The provisions of Paragraphs 1.1 to 1.6 inclusive of Part 2 of the form of Appendix E in force on the day prior to the **NETA Go-live Date** shall continue to apply *mutatis mutandis* to all

**Transmission Services Use of System Charges** payable in respect of any **Settlement Day** up to the **NETA Go-live Date**.

### 3.19 RECONCILIATION PAYMENTS

Each **User**, or as the case may be, **The Company**, shall pay the amounts set out in any invoice or credit note issued pursuant to Paragraphs 3.15.2 or 3.15.6 respectively above, either in accordance with the applicable requirements for payment of other sums due under that invoice in the case of sums shown in an invoice also dealing with other payments, or in other cases within 5 **Business Days** of the date of the **Balancing Services Use of System Reconciliation Statement or Dispute Statement** as appropriate.

### 3.20 REVISION OF CHARGES

3.20.1 Subject to Paragraph 3.20.2 below, **The Company** shall give the **User** not less than 2 months prior written notice of any revision to the **Statement of the Use of System Charging Methodology** which will affect the application and calculation of the **Balancing Services Use of System Charges**, which notice shall specify the date upon which such revisions become effective (which may be at any time). The **User** shall pay any such revised charges with effect from the date specified in such notice.

3.20.2 Where in accordance with the **Transmission Licence**, the **Authority** determines a shorter period than two months for the implementation of a revision to the charges which will affect the application and calculation of the **Balancing Services Use of System Charge**, the notice period will be determined by the **Authority**. The notice will specify when the revision is effective and the **User** shall pay any such revised charges with effect from the date specified in such notice.

## PART III - CREDIT REQUIREMENTS

### 3.21 ~~BSUOS CHARGES AND TNUOS DEMAND CHARGES;~~ PROVISION OF SECURITY COVER

3.21.1 Each **User** required to pay **Use of System Charges** shall provide **Security Cover** for **Balancing Services Use of System Charges** ~~and~~, **Transmission Network Use of System**

**Demand Charges, Short Term Access Products Charges and Entry Overrun Charges** from time to time in accordance with this Part III- **and the provisions of Appendix 3 to this Section 3 of the CUSC and Schedule 4 of the CUSC.**

3.21.2 Each such **User** shall not later than the date of its accession to the **CUSC Framework Agreement** deliver to **The Company** evidence reasonably satisfactory:-

- (a) to establish the **User's Allowed Credit**; and
- (b) if required, that it has provided and is not in default under the **Security Cover** referred to in Paragraph 3.21.3 below.

3.21.3 The User shall be required to provide **Security Cover** where its **Security Requirement** exceeds its **User's Allowed Credit**. If such **User** is required to provide **Security Cover** it shall, not later than the date of:-

- (a) the date of its becoming a party to the **CUSC Framework Agreement**; or
- (b) two **Business Days** after **NGCThe Company** notifies the **User** in writing that the **Security Cover** required exceeds the **Security Amount** provided; or
- (c) where and to the extent that the amount of **Security Cover** required exceeds the **Security Amount** provided as a result of a **User's** revised forecast given in accordance with Paragraph 3.10 within one month of such revised forecast being provided to **NGCThe Company**:-
  - (i) deliver to **The Company** a **Qualifying Guarantee** in such amount as shall be notified by **The Company** to the **User** in accordance with Paragraph 3.22; and/or
  - (ii) deliver to **The Company** a **Letter of Credit** (available for an initial period of not less than 6 months) in such amount as shall be notified by **The Company** to the **User** in accordance with Paragraph 3.22; and/or
  - (iii) deliver to **The Company** cash for credit to the **Escrow Account** in such amount as shall be notified by **The Company** in accordance with Paragraph 3.22; and/or

- (iv) deliver to **The Company** a **Bilateral Insurance Policy** in such an amount as shall be notified by **The Company** to the **User** in accordance with Paragraph 3.22; and/or
- (v) deliver to **The Company** an **Insurance Performance Bond** in such an amount as shall be notified by **The Company** to the **User** in accordance with Paragraph 3.22; and/or
- (vi) delivery to **The Company** an **Independent Security Arrangement** in such an amount as shall be notified by **The Company** to the **User** in accordance with Paragraph 3.22.

3.21.4 The provisions of this Part III shall be in addition to any other requirements to provide security in respect of any other sums due under the terms of the **CUSC** or any **Bilateral Agreement** or **Construction Agreement**.

3.21.5 Maintenance of Security Cover

Where a **User** is required to provide **Security Cover** in accordance with the terms of this Paragraph 3.21 and the provisions of Appendix 3 to this Section 3 of the CUSC it shall at all times thereafter maintain a **Security Amount** equal to or more than the **Security Cover** applicable to it. Immediately upon any reduction occurring in the **Security Amount** provided by the **User** or any **Letter of Credit** or **Qualifying Guarantee** or **Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** being for any reason drawn down or demanded respectively, the **User** will procure that new **Letters of Credit** or **Qualifying Guarantees** or **Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** are issued or existing **Letters of Credit** or **Qualifying Guarantees** or **Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** are reinstated (to the satisfaction of **The Company**) to their full value or cash is placed to the credit of the **Escrow Account** in an amount required to restore the **Security Amount** to an amount at least equal to the **Security Cover** applicable to the **User**, and in such proportions of **Letters of Credit**, **Qualifying Guarantees** or **Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** and/or cash as the **User** may determine. Not later than 10 **Business Days** before any outstanding **Letter of Credit** and/or **Qualifying Guarantee** or **Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** is due to expire, the **User** shall procure to the satisfaction of **The**

**Company** that its required **Security Amount** will be available for a further period of not less than 6 months which may be done in one of the following ways:-

- (a) subject to the issuing bank continuing to have an **Approved Credit Rating** for an amount at least equal to the required **Security Amount** applicable to it (less its balance on the **Escrow Account**) provide **The Company** with confirmation from the issuing bank that the validity of the **Letter of Credit** has been extended for a period of not less than 6 months on the same terms and otherwise for such amount as is required by this Part III; or
- (b) provide **The Company** with a new **Letter of Credit** issued by an issuing bank with an **Approved Credit Rating** for an amount at least equal to the required **Security Amount** applicable to it (less its balance on the **Escrow Account**) which **Letter of Credit** shall be available for a period of not less than 6 months; or
- (c) subject to the entity issuing the **Qualifying Guarantee** continuing to have an **Approved Credit Rating** for an amount at least equal to the required **Security Amount** applicable to it (less its balance on the **Escrow Account**) provide **The Company** with confirmation from the issuing entity that the validity of the **Qualifying Guarantee** has been extended for a period of not less than 6 months on the same terms and otherwise for such amount as is required by this Part III; or
- (d) provide **The Company** with a new **Qualifying Guarantee** for an amount at least equal to the required **Security Amount** applicable to it (less its balance on the **Escrow Account**) which **Qualifying Guarantee** shall be available for a period of not less than 6 months; or
- (e) procure such transfer to **The Company** for credit to the **Escrow Account** of an amount as shall ensure that the credit balance applicable to the **User** and standing to the credit of the **Escrow Account** shall be at least equal to the required **Security Amount**; or
- (f) subject to the entity issuing the **Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** continuing to meet the **Requirements** provide **The Company** with confirmation from the issuing entity that the validity of the **Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** has been extended for a period of not less than 6 months on the same terms

and otherwise for such amount as is required by this Part III; or

- (g) provide **The Company** with a new **Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** for an amount at least equal to the required **Security Amount** applicable to it (less its balance on the **Escrow Account**) which **Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** shall be available for a period of not less than 6 months.

#### 3.21.6 Failure to supply or maintain Security Cover

If the **User** fails at any time to provide or maintain **Security Cover** to the satisfaction of **The Company** in accordance with the provisions of this Part III, **The Company** may at any time while such default continues, and if at such time any **Letter of Credit** and/or **Qualifying Guarantee** and/or **Bilateral Insurance Policy** and/or **Insurance Performance Bond** and/or **Independent Security Arrangement** forming part of the **Security Amount** is due to expire within 9 **Business Days** immediately, and without notice to the **User**, demand payment of the entire amount of any outstanding **Letter of Credit** and/or **Qualifying Guarantee** and/or **Bilateral Insurance Policy** and/or **Insurance Performance Bond** and/or **Independent Security Arrangement** and shall credit the proceeds of the **Letter of Credit** and/or **Qualifying Guarantee** and/or **Bilateral Insurance Policy** and/or **Insurance Performance Bond** and/or **Independent Security Arrangement** to the **Escrow Account**.

#### 3.21.7 Substitute Letter of Credit or Qualifying Guarantee

- (a) If the bank issuing the **User's Letter of Credit** ceases to have the credit rating set out in the definition of **Letter of Credit** in this **CUSC** such **User** shall forthwith procure the issue of a substitute **Letter of Credit** by a bank that has such a credit rating or a **Qualifying Guarantee** or a **Bilateral Insurance Policy** or an **Insurance Performance Bond** or an **Independent Security Arrangement** or transfer to **The Company** cash to be credited to the **Escrow Account**.
- (b) If the entity providing the **User's Qualifying Guarantee** ceases to have an **Approved Credit Rating** for an amount at least equal to the required **Security Amount** (less the **User's** balance on the **Escrow Account**) the **User** shall forthwith procure a replacement **Qualifying Guarantee** from an entity with such a credit rating or a

**Letter of Credit** or a **Bilateral Insurance Policy** or an **Insurance Performance Bond** or an **Independent Security Arrangement** or transfer to **The Company** cash to be credited to the **Escrow Account**.

- (c) If the entity providing the **User's Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** ceases to meet the **Requirements** the **User** shall forthwith procure a replacement of the same or a **Bilateral Insurance Policy**, **Insurance Performance Bond**, **Independent Security Arrangement**, **Letter of Credit**, **Qualifying Guarantee** or transfer to **The Company** cash to be credited to the **Escrow Account**.

### 3.22 CREDIT MONITORING

#### 3.22.1 Determination of Security Cover

The amount of **Security Cover** which the **User** shall be required to maintain shall be determined from time to time by **The Company** as the **User's Security Requirement** less the **User's Allowed Credit**.

#### 3.22.2 Determination of Security Requirement

The **Security Requirement** for each **User** shall be determined as:-

- (a) the **Balancing Services Use of System Charges** provided for in the **CUSC**, where the **User** is a **Supplier**, over a 32 day period or such period as **The Company** acting reasonably shall specify to the **User** in writing from time to time taking into account the requirements for **Security Cover** contained in the **Balancing and Settlement Code** and where **The Company** proposes to change such period **The Company** shall consult with **Users**; and
- (b) the **Balancing Services Use of System Charges** provided for in the **CUSC**, where the **User** is a **Generator**, over a 29 day period or such period as **The Company** acting reasonably shall specify to the **User** in writing from time to time taking into account the requirements for **Security Cover** contained in the **Balancing and Settlement Code** and where **The Company** proposes to change such period **The Company** shall consult with **Users**; and

- (c) in relation to **Transmission Network Use of System Demand Charges** calculated in the following manner for each **Security Period**:-
  - (aa) in the **Financial Year** in which such charges first become due the greater of zero and the **User's Base Value at Risk**; and
  - (bb) in the case of subsequent **Financial Years** the greater of zero and the sum of (i) the **User's Base Value at Risk** and (ii) the **User's Forecasting Performance Related VAR**; and
- (d) in relation to the CLDTEC Charges calculated in accordance with Paragraph 5.5.3 of Appendix 3 to this Section 3; and
- (e) in relation to the 2 Day Ahead SO Release Charges calculated in accordance with Paragraph 7.2.5(c) of Appendix 3 to this Section 3; and
- (f) in relation to the 5 Week Ahead SO Release Charges calculated in accordance with Paragraph 8.2.5(c) of Appendix 3 to this Section 3; and
- (g) in relation to the Entry Overrun Charges calculated in accordance with Paragraph 9.2.7 of Appendix 3 of this Section 3; and
- (h) interest on the amounts referred to in (a), (b), (c), (d), (e), (f) and (g) above calculated in accordance with the provisions of this **CUSC**.

3.22.3 Calculation of **HH Base Value at Risk**

For each **Security Period**, the sum equal to the **HH Base Percentage** of the **User's Indicative Annual HH TNUoS Charge** calculated on the basis of the latest **Demand Forecast** received by **The Company**.

3.22.4 Calculation of **NHH Base Value at Risk**

For each **Security Period**, the sum equal to the **NHH Base Percentage** of the **User's Indicative Annual NHH TNUoS Charge** calculated on the basis of the latest **Demand Forecast** received by **The Company**.

3.22.5 Notification of **Deemed HH Forecasting Performance**

Following the issue of the **Initial Demand Reconciliation Statement** in respect of the previous **Financial Year**, **The Company** shall notify the **User**, of the **Deemed HH Forecasting Performance** to be used in the calculation of the **User's HH Performance Related Var**. Such notice shall be given at least two months prior to the first of the **Security Periods** to which it relates.

#### 3.22.6 Notification of Deemed NHH Forecasting Performance

Following the issue of the **Initial Demand Reconciliation Statement** in respect of the previous **Financial Year**, **The Company** shall notify the **User**, of the **Deemed NHH Forecasting Performance** to be used in the calculation of the **User's NHH Performance Related Var**. Such notice shall be given at least two months prior to the first of the **Security Periods** to which it relates.

#### 3.22.7 Revision of Deemed HH Forecasting Performance

If the **User** has experienced a significant increase in the amount of **Demand** taken by its **Customers** during the last five months of the previous **Financial Year** and believes that this has had a significant effect on their **Deemed HH Forecasting Performance**, then no later than one month from the date of the notification given to the **User** under paragraph 3.22.5, the **User** may request that **The Company** revises the **Deemed HH Forecasting Performance**. Upon raising such a request, the **User** must provide information to **The Company** relating to the size of the reported **Demand** increase and the **Reported Period(s) of Increase**. Where for any **Reported Period of Increase** the resulting increase in **Demand** equates to a level that is in excess of one percent of the **Actual Amount** of **HH Charges** in respect of the previous **Financial Year**, **The Company** shall, within one month of receiving such a request, recalculate the **Deemed HH Forecasting Performance** on the basis set out in Appendix 2 Paragraph 4. A **User** shall not be entitled to raise more than one request by reference to any period or part period covered in another **Reported Period of Increase** in respect of which a request has been raised under this Paragraph.

#### 3.22.8 Revision of Deemed NHH Forecasting Performance

If the **User** has experienced a significant increase in the amount of **Demand** taken by its **Customers** during the last five months of the previous **Financial Year** and believes that this has had a significant effect on their **Deemed NHH Forecasting Performance**, then no later than one month from the date of the notification given to the **User** under paragraph 3.22.6, the

**User** may request that **The Company** revises the **Deemed NHH Forecasting Performance**. Upon raising such a request, the **User** must provide information to **The Company** relating to the size of the reported **Demand** increase and the **Reported Period(s) of Increase**. Where for any **Reported Period of Increase** the resulting increase in **Demand** equates to a level that is in excess of one percent of the **Actual Amount** of **NHH Charges** in respect of the previous **Financial Year**, **The Company** shall within one month of receiving such a request, recalculate the **Deemed NHH Forecasting Performance** on the basis set out in Appendix 2 Paragraph 7. A **User** shall not be entitled to raise more than one request by reference to any period or part period covered in another **Reported Period of Increase** in respect of which a request has been raised under this Paragraph.

#### 3.22.9 Review of Security Cover

**The Company** shall keep under review the **Security Cover** relating to the **User** and shall promptly advise the **User** whenever the **Security Amount** maintained by the **User** is more or less than the amount required to be maintained pursuant to this Paragraph 3.22.

#### 3.22.10 Decrease of Security Cover

If **The Company** reasonably determines that the **User's** required **Security Cover** has decreased, it shall so notify the **User**. **The Company** shall consent to an appropriate reduction in the available amount of any outstanding **Qualifying Guarantee** or **Letter of Credit** or **Bilateral Insurance Policy** or **Insurance Performance Bond** or **Independent Security Arrangement** and/or shall repay to the **User** such part of the deposit held in the **Escrow Account** for the account of the **User** (together with all accrued interest on the part to be repaid) sufficient to reduce the **User's Security Amount** to the level of **Security Cover** applicable to it within 5 **Business Days** of the **User's** consent.

#### 3.22.11 Notification in respect of Security Cover

**The Company** shall notify each **User** promptly if:-

- (a) that **User** fails to provide, maintain, extend or renew a **Qualifying Guarantee** or a **Letter of Credit** or a **Bilateral Insurance Policy** or an **Insurance Performance Bond** or an **Independent Security Arrangement** which it is required to provide, maintain, extend or renew pursuant to Paragraphs 3.21 or 3.22 inclusive;

- (b) **The Company** shall make a demand under any such **Qualifying Guarantee** or a call under a **Letter of Credit** or a **Bilateral Insurance Policy** or an **Insurance Performance Bond** or an **Independent Security Arrangement**; or
- (c) **The Company** becomes aware that that **User**:
  - (i) shall cease to have an **Approved Credit Rating** or shall cease to have an **Approved Credit Rating** for an amount at least equal to the **User's Security Requirement**, or
  - (ii) shall be placed on a credit watch by the relevant credit rating agency (or becomes subject to an equivalent procedure) which in any case casts doubt on the **User** retaining an **Approved Credit Rating** or an **Approved Credit Rating** for an amount at least equal to the **User's Security Requirement** or maintaining the **Credit Assessment Score** given by the **User's Independent Credit Assessment**, or
  - (iii) shall be in default under the additional or alternative security required to be provided pursuant to this Part III; or
- (d) **The Company** becomes aware that any bank that has issued a **Letter of Credit** in relation to that **User** which has not expired shall cease to have the credit rating required by this Section; or
- (e) **The Company** becomes aware that any entity providing a **Qualifying Guarantee** or a **Bilateral Insurance Policy** or an **Insurance Performance Bond** or an **Independent Security Arrangement** in relation to that **User** which has not expired shall cease to meet the **Requirements** in the case of a **Bilateral Insurance Policy** or an **Insurance Performance Bond** or an **Independent Security Arrangement** or in the case of a **Qualifying Guarantee** cease to have an **Approved Credit Rating** for an amount at least equal to the required **Security Amount** (less its balance on the **Escrow Account**); or
- (f) **NGG**The Company becomes aware that the **User's Security Requirement** exceeds 85% of the **User's Allowed Credit**.

Provided always that the failure by **The Company** to notify the **User** pursuant to Paragraphs 3.22.9, 3.22.10 or 3.22.11 shall

not relieve the **User** of its obligations under and in accordance with the terms of this Section 3 and the **Charging Statements**.

### 3.22.12 Release from Security Cover Obligations

Upon a **User** becoming a **Dormant CUSC Party** or ceasing to be a **CUSC Party** and provided that all amounts owed by the **User** in respect of **Balancing Services Use of System Charges** ~~and~~, **Transmission Network Use of System Demand Charges**, **Short Term Access Products Charges and Entry Overrun Charges** have been duly and finally paid and that it is not otherwise in default in any respect of any **Balancing Services Use of System Charges** ~~or~~, **Transmission Network Use of System Demand Charges**, **Short Term Access Products Charges and Entry Overrun Charges** (including in each case interest) payable under the **CUSC**, the **User** shall be released from the obligation to maintain **Security Cover** and **The Company** shall consent to the revocation of any outstanding **Qualifying Guarantee** or **Letter of Credit** or a **Bilateral Insurance Policy** or an **Insurance Performance Bond** or an **Independent Security Arrangement** and shall repay to the **User** the balance (including interest credited thereto) standing to the credit of the **User** on the **Escrow Account** at that date.

### 3.23 PAYMENT DEFAULT

If, by 12.30 hours on any **Use of System Payment Date**, **The Company** has been notified by a **User** or it otherwise has reason to believe that that **User** will not have remitted to it by close of banking business on the **Use of System Payment Date** all or any part (“the amount in default”) of any amount which has been notified by **The Company** to the **User** as being payable by the **User** by way of either the **Balancing Services Use of System Charges** ~~and/or~~, **Transmission Network Use of System Demand Charges**, **Short Term Access Products Charges and/or Entry Overrun Charges** on the relevant **Use of System Payment Date**, then **The Company** shall be entitled to act in accordance with the following provisions (or whichever of them shall apply) in the order in which they appear until **The Company** is satisfied that the **User** has discharged its obligations in respect of the **Balancing Services Use of System Charges** ~~and/or~~ **Charges**, **Transmission Network Use of System Demand Charges**, **Short Term Access Products Charges and/or Entry Overrun Charges** (as appropriate) under the **CUSC** which are payable in respect of the relevant **Settlement Day** (in the case of **Balancing Services Use of System Charges**, **Short Term Access Products Charges and Entry Overrun Charges**) or **Financial Year** (in the case of **Transmission Network Use of System Demand Charges**):-

- (a) **The Company** may to the extent that the **User** is entitled to receive payment from **The Company** pursuant to the **CUSC** (unless it reasonably believes that such set-off shall be unlawful) set off the amount of such entitlement against the amount in default;
- (b) **The Company** shall be entitled to set off the amount of funds then standing to the credit of the **Escrow Account** against **Balancing Services Use of System Charges—~~and/or~~, Transmission Network Use of System Demand Charges, Short Term Access Products Charges and/or Entry Overrun Charges** (as appropriate) unpaid by the **User** and for that purpose **The Company** shall be entitled to transfer any such amount from the **Escrow Account** to any other account of **The Company** at its absolute discretion and shall notify the **User** accordingly;
- (c) **The Company** may demand payment under any outstanding **Letter of Credit** supplied by the **User** in a sum not exceeding the available amount of all such **Letters of Credit**;
- (d) **The Company** may demand payment under any outstanding **Qualifying Guarantee** provided for the benefit of the **User** pursuant to Paragraph 3.21.3(b);
- (e) **The Company** may demand payment under any outstanding **Bilateral Insurance Policy** provided for the benefit of the **User**;
- (f) **The Company** may demand payment under any outstanding **Insurance Performance Bond** provided for the benefit of the **User**;
- (g) **The Company** may demand payment under any outstanding **Independent Security Arrangement** provided for the benefit of the **User**.

### 3.24 UTILISATION OF FUNDS

In addition to the provisions of Paragraph 3.23 above if **The Company** serves a notice of default under the terms of Paragraph 5.5 or a notice of termination under Paragraph 5.7 then **The Company** shall be entitled to demand payment of any of the **Balancing Services Use of System Charges—~~and/or~~, Transmission Network Use of System Demand Charges, Short Term Access Products Charges and/or Entry Overrun Charges** which are outstanding from the relevant **User** whether or not the **Use of System Payment Date** in respect of them shall have passed and:-

- (a) make demand under any outstanding **Qualifying Guarantee** or a call under any outstanding **Letter of Credit, Bilateral**

**Insurance Policy, Insurance Performance Bond or Independent Security Arrangement** supplied by the **User**; and

- (b) to set off the funds in the **Escrow Account** against **Balancing Services Use of System Charges** ~~and/or~~ **Transmission Network Use of System Demand Charges, Short Term Access Products Charges and/or Entry Overrun** Charges unpaid by the **User** and for that purpose **The Company** shall be entitled to transfer any such amount from the **Escrow Account** to any other account of **The Company** as it shall in its sole discretion think fit.

### 3.25 USER'S RIGHT TO WITHDRAW FUNDS

If a **User** is not in default in respect of any amount owed to **The Company** in respect of the **Balancing Services Use of System Charges** ~~or~~ **Transmission Network Use of System Charges, Short Term Access Products Charges, Entry Overrun Charges** under the terms of the **CUSC** and any **Bilateral Agreement** to which the **User** is a party:-

- (a) **The Company** shall transfer to the **User** quarterly interest credited to the **Escrow Account**; and
- (b) **The Company** shall transfer to such **User** within a reasonable time after such **User's** written request therefor any amount of cash provided by the **User** by way of **Security Cover** which exceeds the amount which such **User** is required to provide by way of security in accordance with this Part III.

### 3.26 USER'S ALLOWED CREDIT

3.26.1 Each **User** shall notify ~~NGC~~**The Company** promptly if:-

- (a) it gains an **Approved Credit Rating**; or
- (b) it ceases to have an **Approved Credit Rating**; or
- (c) where the **User** holds an **Approved Credit Rating**, its specific investment grading changes; or
- (d) it has reason to believe that its **Credit Assessment Score** is likely to have changed since the last **Independent Credit Assessment**.

3.26.2 The **User's Allowed Credit** extended by ~~NGC~~**The Company** at any time to each **User** with an **Approved Credit Rating** shall be calculated in accordance with Paragraph 1 of Appendix 1 of this Section 3 subject to a maximum value of the **Unsecured Credit Cover**.

- 3.26.3 The **User's Allowed Credit** extended by **NGGThe Company** at any time to each **User** without an **Approved Credit Rating** shall be at the choice of the **User** the **Payment Record Sum** or the **Credit Assessment Sum**.
- 3.26.4 Unless the **User** has notified **NGGThe Company** that it wishes its **User's Allowed Credit** to be to be based on the **Credit Assessment Sum** then, subject to Paragraph 3.26.5, for each successive month in which the **User** pays its **Use of System Charges** by the **Use of System Payment Date** then the **User's Allowed Credit** extended to such **User** at any time shall be calculated in accordance with Paragraph 2 of Appendix 1 of this Section 3.
- 3.26.5 Where a **User** fails to pay its **Use of System Charges** within 2 **Business Days** of the **Use of System Payment Date** its **Payment Record Sum** shall be reduced by 50% on the first such occasion within a twelve month period and shall be reduced to zero on the second occasion in such twelve month period. Upon any such failure to pay, the **User's Allowed Credit** (as adjusted following such failure in accordance with this clause) shall be calculated for successive months in accordance with Paragraph 3.26.4.
- 3.26.6 Where a **User** has notified **NGGThe Company** that it wishes its **User's Allowed Credit** to be based on its **Credit Assessment Sum**, the **Credit Assessment Sum** extended to a **User** at any time shall be calculated be reference to the **Credit Assessment Score** given by the **Independent Credit Assessment** in accordance with Paragraph 3 of Appendix 1 of this Section 3.
- 3.26.7 Where a **User** has notified **NGGThe Company** that its wishes its **User's Allowed Credit** to be based on the **Credit Assessment Sum** then the **User** will obtain an **Independent Credit Assessment** of that **User**. The first such **Independent Credit Assessment** will be at **NGGThe Company's** cost.
- 3.26.8 Where a **User's Allowed Credit** is based on the **Credit Assessment Sum** then where **NGGThe Company** has reason to believe that the **Independent Credit Assessment** last obtained is likely to have changed then **NGGThe Company** shall be entitled to request the **User** to obtain a further **independent Credit Assessment**. Such **Independent Credit Assessment** shall be at **NGGThe Company's** cost.
- 3.26.9 The **User** may obtain an **Independent Credit Assessment** at **NGGThe Company's** cost provided that **NGGThe Company** has not paid for an earlier **Independent Credit Assessment** for that **User** within the previous 12 months. The **User** may obtain further **Independent Credit Assessments** within such a 12 month period at the **User's** cost.

### 3.27 TRANSITIONAL ARRANGEMENTS

3.27.1 Recognising the changes to the **Security Cover** and **Security Requirements** introduced by the **Security Amendment** and the consequences for **The Company** and **Users** then notwithstanding the provisions of **CUSC** Section 3 Part III the following transitional provisions shall apply:

- (a) the obligation for **Users** whose **Security Requirement** will as a result of the **Security Amendment** increase at the **Security Amendment Implementation Date** shall be to provide the difference between the **Existing Security Cover** and the **Security Cover** in full by no later than the **End Date** and by increasing the **Existing Security Cover** each month by equal monthly amounts of the difference between the **existing Security Cover** and the **Security Cover**; and
- (b) where a **User's Security Requirement** at the **Security Amendment Implementation Date** is less than the **Existing Security Cover** held for that **User** then **The Company** shall release the **existing Security Cover** by the appropriate amount as soon as practicable and in any event within one calendar month of the **Security Amendment Implementation Date**.

3.27.2 Recognising the changes to the **Security Cover** and **Security Requirements** introduced by the **Value At Risk Amendment** and the consequences for **The Company** and **Users** then notwithstanding the provisions of **CUSC** Section 3 Part III the following transitional provisions shall apply:

- (a) Until the **Initial Demand Reconciliation Statement** has been issued for the **Financial Year** ending at least six months following the **Value At Risk Amendment Implementation Date**, and **The Company** has calculated the **Forecasting Performance Related VAR** by reference to this, each **User's Forecasting Performance Related VAR** shall be substituted by such percentage of **User's Transmission Network Use of System Demand Charges** as reflects the percentage difference between the **Actual Amount** and the **Notional Amount** of the **User's Transmission Network Use of System Demand Charges** for the previous **Financial Year**, provided that where the **Notional Amount** exceeds the **Actual Amount**, the percentage shall be zero;
- (b) the obligation for **Users** whose **Security Requirement** will increase at the **Value At Risk Amendment Implementation Date** as a result of the **Value At Risk Amendment** shall be to provide the difference between the **Pre-Value At Risk Amendment Security Cover** and the **Security Cover** in full by no later than the **Value At Risk Amendment Implementation End Date** and by increasing the **Pre-Value At Risk Amendment Security Cover** each month by equal monthly

amounts of the difference between the **Pre-Value At Risk Amendment Security Cover** and the **Security Cover**; and

- (c) where a **User's Security Requirement** at the **Value At Risk Amendment Implementation Date** is less than the **Pre-Value At Risk Amendment Security Cover** held for that **User** then **The Company** shall release the **Pre-Value At Risk Amendment Security Cover** by the appropriate amount as soon as practicable and in any event within one calendar month of the **Value At Risk Amendment Implementation Date**.

## APPENDIX 1 CREDIT ARRANGEMENTS

- 1 Where the **User** meets the **Approved Credit Rating** that **User's Allowed Credit** at any given time shall be calculated as a percentage of **Unsecured Credit Cover** by reference to the specific investment grade within the **User's Approved Credit Rating** as follows:

Approved Long Term Credit Rating			User's Allowed Credit as % of Unsecured Credit Cover
Standard & Poor's	Moody's	Fitch	
AAA AA+ AA AA-	Aaa Aa1 Aa2 Aa3	AAA AA+ AA AA-	100
A+ A A-	A1 A2 A3	A+ A A-	40
BBB+	Baa1	BBB+	20
BBB	Baa2	BBB	19
BBB-	Baa3	BBB-	18
BB+	Ba1	BB+	17
BB	Ba2	BB	16
BB-	Ba3	BB-	15

- 2 Where based on the **Payment Record Sum**, a **User's Allowed Credit** at any time shall be calculated on the basis of 0.4% per 12 month period (escalating on an evenly graduated basis each month) of the **Unsecured Credit Cover**, subject to a maximum of 2% after 60 months of successive payment by the **Use of System Payment Date**.
- 3 Where based on the **Credit Assessment Sum**, a **User's Allowed Credit** at any given time shall be calculated as a percentage of the **Unsecured Credit Cover** by reference to the **Credit Assessment Score** as follows:

Credit Assessment Score	User's Allowed Credit as % of Unsecured Credit Cover
10	20
9	19
8	18
7	17
6	16
5	15
4	13.33
3	10
2	6.67
1	3.33

0	0
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## APPENDIX 2

### Base Value At Risk

1. For each **Security Period**, the **HH Base Percentage** used in determining the **User's HH Base Value at Risk** shall be determined by reference to the following:

<b>Security Period Start Date (inclusive)</b>	<b>Security Period End Date (inclusive)</b>	<b>HH Base Percentage</b>
1 <sup>st</sup> April	30 <sup>th</sup> June	-8.4%
1 <sup>st</sup> July	30 <sup>th</sup> September	-33.4%
1 <sup>st</sup> October	31 <sup>st</sup> December	-49.1%
1 <sup>st</sup> January	31 <sup>st</sup> March	7.0%

(a)

(b) For

2. For each **Security Period**, the **NHH Base Percentage** used in determining the **User's NHH Base Value at Risk** shall be determined by reference to the following:

<b>Security Period Start Date (inclusive)</b>	<b>Security Period End Date (inclusive)</b>	<b>(c)NHH Base Percentage</b>
1 <sup>st</sup> April	30 <sup>th</sup> June	(d)4.3%
1 <sup>st</sup> July	30 <sup>th</sup> September	(e)-1.5%
1 <sup>st</sup> October	31 <sup>st</sup> December	(f)-2.8%
1 <sup>st</sup> January	31 <sup>st</sup> March	(g)3.7%

### Deemed HH Forecasting Performance and Revision

3. **Deemed HH Forecasting Performance**,  $FPP_{HH}$ , shall be calculated as set out in the following formula:

$$FPP_{HH} = \max\left(0, \frac{5}{1333} \sum_{m=8}^{12} \left( \frac{AA_{HH} - IA_{HH,m} * W_{HH,m}}{AA_{HH}} \right) - CA_{HH} \right)$$

Where:

$AA_{HH}$  is the **Actual Amount of User's HH Charges** for the previous **Financial Year**

$IA_{HH,m}$  is the **Indicative Annual HH TNUoS charge** calculated using the **Demand Forecast** used to determine **Transmission Network Use of System Demand Charges** made during month  $m$  of the previous **Financial Year**.

$W_{HH,m}$ , The forecast weighting to be applied for each month,  $m$  by reference to the following:

$m$	Invoice Month	Forecast weighting, $W_{HH,m}$
8	November	33.3
9	December	33.3
10	January	33.3
11	February	66.7
12	March	100

$CA_{HH}$ , is an allowance for extreme conditions equal to 0.06.

4. The revised **Deemed HH Forecasting Performance**, shall be calculated on the basis of Paragraph 3 above, substituting the **Indicative Annual HH TNUoS Charge** for each month,  $m$  prior to the end of the **Reported Period of Increase** with the **Revised Indicative Annual HH TNUoS charge**,  $RIA_{HH,m}$
5. The **Revised Indicative Annual HH TNUoS charge**,  $RIA_{HH,m}$  shall be derived as follows:

$$RIA_{HH,m} = \min \left( \max \left( \frac{DUA_{HH,p}}{DUB_{HH,p}} - \frac{DSA_{HH,p}}{DSB_{HH,p}}, 0 \right) * RD_{HH,p} + IA_{HH,m}, IA_{HH,p} \right)$$

Where:

$DUA_{HH,p}$  is the average half-hourly metered demand taken by the **User's Customers** during the period 17:00 to 17:30 on the twenty **Business Days** prior to the **Reported Period of Increase**,  $p$ , that do not fall between the two week period commencing 22<sup>nd</sup> December.

$DUB_{HH,p}$  is the average half-hourly metered demand taken by the **User's Customers** during the period 17:00 to 17:30 on the twenty **Business Days** following the **Reported Period of Increase**,  $p$ , that do not fall between the two week period commencing 22<sup>nd</sup> December.

$DSA_{HH,p}$  is the average demand taken by **Total System Chargeable HH Demand** during the period 17:00 to 17:30 on the twenty **Business Days** prior to the **Reported Period of Increase**,  $p$ , that do not fall between the two week period commencing 22<sup>nd</sup> December.

$DSB_{HH,p}$  is the average demand taken by **Total System Chargeable HH Demand** during the period 17:00 to 17:30 on the twenty **Business Days** following the **Reported Period of Increase**,  $p$ , that do not fall between the two week period commencing 22<sup>nd</sup> December.

$RD_{HH,p}$  is the forecast proportion of **HH Charges** remaining for the previous **Financial Year** from the first day of the month in which the **Reported Period of Increase**,  $p$  commences by reference to the following:

Month in which <b>Reported Period of Increase commences</b>	Remaining proportion of <b>HH Charges</b>
October	100%
November	100%
December	100%
January	66.7%
February	33.3%

$IA_{HH,m}$  is the **Indicative Annual HH TNUoS charge** calculated using the **Demand Forecast** used to determine **Transmission Network Use of System Demand Charges** made during month  $m$  of the previous **Financial Year**.

$IA_{HH,p}$  in the case that the the **Reported Period of Increase**,  $p$  ends prior to the 10<sup>th</sup> February of the previous **Financial Year**, is set equal to the **Indicative Annual HH TNUoS charge** calculated using the **Demand Forecast** used to determine **Transmission Network Use of System Demand Charges** made during the month immediately following **Reported Period of Increase** of the

previous **Financial Year**, otherwise is set to infinity.

Deemed NHH Forecasting Performance and Revision

6. **Deemed NHH Forecasting Performance**,  $FPP_{NHH}$ , shall be calculated as set out in the following formula:

$$FPP_{NHH} = \max\left(0, \frac{1}{300} \sum_{m=8}^{12} \left( \frac{AA_{NHH} - IA_{NHH,m} * W_{NHH,m}}{AA_{NHH}} \right) - CA_{NHH} \right)$$

Where:

$AA_{NHH}$  is the **Actual Amount of User’s NHH Charges** for the previous **Financial Year**.

$IA_{NHH,m}$  is the **Indicative Annual NHH TNUoS charge** calculated using the **Demand Forecast** used to determine **Transmission Network Use of System Demand Charges** made during month  $m$  of the previous **Financial Year**.

$W_{NHH,m}$  The forecast weighting to be applied for each month,  $m$  by reference to the following:

$m$	Invoice Month	Forecast weighting, $W_{NHH,m}$
8	November	41
9	December	49
10	January	59
11	February	70
12	March	81

$CA_{NHH}$  is an allowance for extreme conditions equal to 0.03.

7. The revised **Deemed NHH Forecasting Performance** shall be calculated on the basis of Paragraph 6 above, substituting the **Indicative Annual NHH TNUoS Charge** for each month,  $m$  prior to the end of the **Reported Period of Increase** with the **Revised Indicative Annual NHH TNUoS charge,  $RIA_{NHH,m}$** .
8. The **Revised Indicative Annual NHH TNUoS charge,  $RIA_{NHH,m}$**  shall be derived as follows:

$$RIA_{NHH,m} = \min \left( \max \left( \frac{DUA_{NHH,p}}{DUB_{NHH,p}} - \frac{DSA_{NHH,p}}{DSB_{NHH,p}}, 0 \right) * RD_{NHH,p} + IA_{NHH,m}, IA_{NHH,p} \right)$$

Where:

$DUA_{NHH,p}$  is the average non-half-hourly metered demand taken by the **User's Customers** during the period 16:00 to 19:00 on the twenty **Business Days** prior to the **Reported Period of Increase,  $p$** , that do not fall between the two week period commencing 22<sup>nd</sup> December.

$DUB_{NHH,p}$  is the average non-half-hourly metered demand taken by the **User's Customers** during the period 16:00 to 19:00 on the twenty **Business Days** following the **Reported Period of Increase,  $p$** , that do not fall between the two week period commencing 22<sup>nd</sup> December.

$DSA_{NHH,p}$  is the average demand taken by **Total System Chargeable NHH Demand** during the period 16:00 to 19:00 on the twenty **Business Days** prior to the **Reported Period of Increase,  $p$** , that do not fall between the two week period commencing 22<sup>nd</sup> December.

$DSB_{NHH,p}$  is the average demand taken by **Total System Chargeable NHH Demand** during the period 16:00 to 19:00 on the twenty **Business Days** following the **Reported Period of Increase,  $p$** , that do not fall between the two week period commencing 22<sup>nd</sup> December.

$RD_{NHH,p}$  is the forecast proportion of **NHH Charges** remaining for the previous **Financial Year** from the first day of the month in which the **Reported Period of Increase,  $p$**  commences by reference to the following:

Month in which <b>Reported Period of Increase commences</b>	Remaining proportion of <b>NHH Charges</b>
October	59%
November	51%
December	41%
January	30%
February	19%

$IA_{NHH,m}$  is the **Indicative Annual NHH TNUoS charge** calculated using the **Demand Forecast** used to determine **Transmission Network Use of System Demand Charges** made during month  $m$  of the previous **Financial Year**.

$IA_{NHH,p}$  in the case that the the **Reported Period of Increase**,  $p$  ends prior to the 10<sup>th</sup> February of the previous **Financial Year**, is set equal to the **Indicative Annual NHH TNUoS charge** calculated using the **Demand Forecast** used to determine **Transmission Network Use of System Demand Charges** made during the month immediately following **Reported Period of Increase** of the previous **Financial Year**, otherwise is set to infinity.

**END OF SECTION 3**



## APPENDIX 3

### Ways of Using the GB Transmission System

References to “**User**” in this Appendix 3 shall be read as references to a **User** acting in the category of a **Power Station** directly connected to the **GB Transmission System** or an **Embedded Power Station** with a **Bilateral Embedded Generation Agreement**.

A **User** is entitled to **Use of System** at a **Node** up to its **LCN** and by means of the access products set out in Sections 2 to 11 in this Appendix 3.

For the avoidance of doubt, the payment provisions of Paragraph 6.6 of Section 6 of the **CUSC** shall apply to the products set out in this Appendix unless specified otherwise, in which case the payment provisions of this Appendix shall prevail.

### 1. LOCAL CAPACITY NOMINATION

#### 1.1 Background

A **User’s LCN** will be as set out in Appendix C of that **User’s Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement**.

#### 1.2 Characteristics of Local Capacity Nomination

1.2.1 A **User’s LCN** shall never exceed that **User’s Connection Entry Capacity** specified in that **User’s Bilateral Connection Agreement**.

#### 1.2.2 No Use of System without LCN

A **User** without an **LCN** shall not be entitled to apply for **Use of System** by means of any **Short Term Access Products** or apply for an **Exchange Rate Request** or **Shared Access Capacity Rate Request** and shall not be able to use the **GB Transmission System** prior to completion of any **Transmission Connection Asset Works** and **LCN Transmission Reinforcement Works**.

#### 1.2.4 Prohibition to export above LCN

A **User** shall not request a **Use of System** access product under this Appendix 3, if such a product would result in a **User’s Access Capacity** exceeding its **LCN**.

#### 1.3 Users wishing to increase LCN after receipt of Operational Notification

Each **User** shall be entitled to request an increase in its **LCN** for a **Node** up to, in the case of a **Power Station** directly connected to the **GB Transmission System**, a maximum of the **Connection Entry Capacity** for the **Node**, and such request shall be deemed to be a **Modification** for the purposes of the **CUSC** but with the words “as soon as practicable... not more than 3 months after” being read in the context of such **Modification** as being “within 28 days where practicable and in any event not more than 3 months (save where the **Authority** consents to a longer period) after”.

#### **1.4 Users wishing to decrease LCN after receipt of Operational Notification**

1.4.1 Each **User** shall be entitled to decrease the **LCN** for the **Node** upon giving **The Company** not less than 5 **Business Days** notice in writing prior to 30 March in any **Financial Year**.

1.4.2 **The Company** shall as soon as practicable after receipt of such notice issue a revised Appendix C for the purposes of the relevant **Bilateral Agreement** or **Bilateral Embedded Generation Agreement** reflecting the decrease in the **LCN**.

1.4.3 The decrease in the **LCN** shall take effect on the first of April following receipt of the notice.

## **2. TRANSMISSION ENTRY CAPACITY (TEC)**

### **2.1 Background**

A **User's Transmission Entry Capacity** shall be as specified in Appendix C to the **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** as the case may be.

### **2.2 Decrease in Transmission Entry Capacity after receipt of Operational Notification**

2.2.1 Each **User** shall be entitled to decrease the **Transmission Entry Capacity** for the **Node** upon giving **The Company** not less than 5 **Business Days** notice prior to 30 March in any **Financial Year**.

2.2.2 **The Company** shall as soon as practicable after receipt of such notice issue a revised Appendix C for the purposes of the relevant **Bilateral**

**Agreement** reflecting the decrease in the **Transmission Entry Capacity**.

2.2.3 The decrease in the **Transmission Entry Capacity** shall take effect on first April following receipt of the notice.

## 2.3 **Increase in Transmission Entry Capacity after receipt of Operational Notification**

Each **User** shall be entitled to request an increase in its **Transmission Entry Capacity** for a **Node** up to, in the case of a **Power Station** directly connected to the **GB Transmission System**, a maximum of the **Connection Entry Capacity** for the **Node** and such request shall be deemed to be a **Modification** for the purposes of the **CUSC** but with the words “as soon as practicable... not more than 3 months after” being read in the context of such **Modification** as being “within 28 days where practicable and in any event not more than 3 months (save where the **Authority** consents to a longer period) after”.

## 2.4 **Exchange Rate Requests Effective Post Operational Notification**

2.4.1 **The Company** shall establish and maintain an **LCN/TEC Register** published on **The Company Website** recording the details set out in Paragraph 2.4.2 of this Appendix 3.

2.4.2 The **LCN/TEC Register** shall set out the name of the **User**, the **Connection Site** (or in the case of an **Embedded Generator**, site of connection), the **Transmission Entry Capacity**, **the Local Capacity Nomination**, the year of connection to (or in the case of an **Embedded Generator** the year of the use of) the **GB Transmission System** in respect of any **Bilateral Agreements** or agreements to change a **User’s Transmission Entry Capacity**.

2.4.3 The details of the **Bilateral Agreement** or agreements to change a **User’s Transmission Entry Capacity and/or LCN** shall be recorded on the **LCN/TEC Register** within 5 **Business Days** of the completion of such agreements.

2.4.4 Subject to the payment of the fee as outlined in the **Charging Methodology Statements**, **The Company** shall, after receipt of an **Exchange Rate Request** calculate the **Exchange Rate** as soon as practicable

but in any event not more than 3 months after such request is received.

2.4.5 In the event that the parties wish to proceed with a **TEC Trade** on the basis of the **Exchange Rate** then the **User** shall notify **The Company** and effective from the following 1 April, **The Company** shall revise the **Bilateral Agreements** (as appropriate) provided.

2.4.6 Any **TEC** transferred pursuant to a **TEC Trade** under this Paragraph 2.4 of Appendix 3 shall be transferred on a permanent basis.

### 3. SHORT TERM TRANSMISSION ENTRY CAPACITY

#### 3.1 Background

3.1.1 A **User**, who is party to a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** may, make a **STTEC Request** to **The Company** in accordance with this Paragraph 3 of Appendix 3.

3.1.2 A **User's Access Capacity** for any part of the **STTEC Period** must not exceed its **Local Capacity Nomination**.

#### 3.2 Form of STTEC Request

3.2.1 A **STTEC Request** must be received by **The Company** by the relevant date specified in Paragraph 3.6.5 of Appendix 3 of this Section 3 to the **CUSC**.

3.2.2 A **STTEC Request** must be made by way of email to be sent to the email address specified in the **STTEC Request Form** and confirmed by fax and must attach the **STTEC Request Form** duly completed and signed on behalf of the **User**.

3.2.3 A **STTEC Request** shall not be deemed received by **The Company** until the non-refundable **STTEC Request Fee** has been paid to **The Company** and until the faxed copy of the **STTEC Request** is received in accordance with Paragraph 6.21.2.4 of the **CUSC**.

3.2.4 The **STTEC Request** must specify whether it is a **Request for a STTEC Authorisation** or an **Application for a STTEC Offer**.

- 3.2.5 Each **STTEC Request** must state one **STTEC Period** only.
- 3.2.6. A **STTEC Request** must be for a **STTEC Period** within a 12 month period of receipt by **The Company** of the **STTEC Request** and the **STTEC Period** must not include any days within more than one **Financial Year**. The **STTEC Request** must include the minimum and maximum level of MW for the **STTEC Period**.

### **3.3 Assessment by The Company of STTEC Requests**

- 3.3.1 **The Company** may reject any **STTEC Request** that is not made in accordance with the provisions of this Paragraph 3 of this Appendix 3.
- 3.3.2 **The Company** will assess **STTEC Requests** and whether or not to make a **STTEC Offer** at its absolute discretion.
- 3.3.3 **The Company** will start assessing a **STTEC Request** no later than the relevant date specified in Paragraph 3.6.5 of this Appendix 3.
- 3.3.4 If **The Company** has received more than one **STTEC Request** for a **STTEC Period** with the same start date, **The Company** will:
  - (i) assess any **Requests for a STTEC Authorisation** before assessing any **Applications for a STTEC Offer**;
  - (ii) assess **Requests for a STTEC Authorisation** on a first come first served basis such that the **Request for a STTEC Authorisation** received earliest in time by **The Company** (as recorded by **The Company**) will be assessed first and then the **Request for a STTEC Authorisation** received next in time after that, and so on;
  - (iii) assess **Applications for a STTEC Offer** on a first come first served basis such that the **Application for a STTEC Offer** received earliest in time by **The Company** (as recorded by **The Company**) will be assessed first and then the **Application for a STTEC Offer** received next in time after that, and so on.

- 3.3.5 No priority will be given to any **Users** who have previously made successful **STTEC Requests** or **LDTEC Requests**.

### **3.4 Notification by The Company**

- 3.4.1 Each **User** confirms and agrees that **The Company** shall have no liability to it for any **STTEC Request** in respect of which **The Company** makes no **STTEC Offer** in accordance with this Paragraph 3 of Appendix 3.
- 3.4.2 **The Company** is not obliged to make a **STTEC Offer** in respect of any **STTEC Request** submitted.
- 3.4.3 A **STTEC Offer** will only be made with respect to a **STTEC Request** at a level within the maximum and minimum range in MW submitted by the **User**.
- 3.4.4 **STTEC Offers** will be made for a uniform amount of MW for the **STTEC Period**.
- 3.4.5 No **STTEC Offer** will be made if the maximum figure in the **STTEC Request** would together with the **User's Transmission Entry Capacity** (plus any **Short Term Access Product** or **Entry Overrun** previously offered for any part of the **STTEC Period**) exceeds the total station **Local Capacity Nomination**.
- 3.4.6 **The Company** shall notify a **User** who has made a **STTEC Request** by no later than the relevant date referred to at Paragraph 3.6.6 of this Appendix 3, whether or not **The Company** makes a **STTEC Offer** in response to the **User's STTEC Request**.

### **3.5 Charging, Invoicing and Payment**

- 3.5.1 Each **User** must pay the **STTEC Charge** even if the **User** does not use the corresponding **STTEC**.
- 3.5.2 The provisions of Section 3 of the **CUSC** shall apply in respect of the **STTEC Charge**.
- 3.5.3 The provisions of Section 6.6 of the **CUSC** shall apply in respect of payment of the **STTEC Charge**.

### **3.6 General**

3.6.1 Each **Request for a STTEC Authorisation** will constitute an unconditional and irrevocable offer by the **User** to **The Company** to buy **Short Term Capacity** (on a station basis) up to the quantity (in whole MW) stated in the **STTEC Request** for the **STTEC Period** and at the relevant price per MW set out in the **Statement of Use of System Charges** and upon the terms and conditions of **CUSC**. A **Request for a STTEC Authorisation** is capable of being accepted by **The Company**. Notification by **The Company** that it has granted the **Request for a STTEC Authorisation** in accordance with Paragraph 3.4.6 of this Appendix 3 constitutes acceptance by **The Company** of the **Request for a STTEC Authorisation**. The notification of **STTEC Authorisation** will:-

- (i) state the level in MW (within the maximum and minimum range requested by the **User**) offered for the **STTEC Period**;
- (ii) include a revised Appendix C to the relevant **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** (as appropriate) which will detail the **STTEC** and the **STTEC Period** for which this applies and **The Company** and the **User** agree that Appendix C to the relevant **Bilateral Agreement** will be deemed to be that notified in accordance with this Paragraph 3.6 of Appendix 3 for the **STTEC Period**, unless otherwise amended in accordance with such **Bilateral Agreement** or the **CUSC**. Upon expiry of the **STTEC Period** the provisions in Appendix C that relate to such **STTEC** for that **STTEC Period** shall cease to have effect;
- (iii) state the **STTEC Charge**.

3.6.2 Each **Application for a STTEC Offer** is an application for the right to buy **Short Term Capacity** (on a station basis) up to the quantity (in whole MW) stated in the **STTEC Request** for the **STTEC Period** at the relevant price per MW set out in the **Statement of Use System Charges** and upon the terms and conditions of **CUSC**. Once an **Application for a STTEC Offer** has been received by **The Company** it cannot be withdrawn without the written consent of **The Company**. Notification by **The Company** that it has granted the **Application for a STTEC Offer** in accordance with

Paragraph 3.4.5 of this Appendix 3 will constitute a **STTEC Offer**.

3.6.3 A **STTEC Offer** shall:

- (i) state the level in MW of **STTEC** (within the maximum and minimum range requested by the **User**) offered for the **STTEC Period**;
- (ii) include a revised Appendix C to the relevant **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** (as appropriate) which will detail the **STTEC** and the **STTEC Period** for which this applies and **The Company** and the **User** agree that, if the **User** accepts the **STTEC Offer** in accordance with Paragraph 3.6.4 of this Appendix 3, Appendix C to the relevant **Bilateral Agreement** will be deemed to be that notified in accordance with this Paragraph 3 of this Appendix 3 for the **STTEC Period**, unless otherwise amended in accordance with such **Bilateral Agreement** or the **CUSC**. Upon expiry of the **STTEC Period** the provisions in Appendix C that relate to such **STTEC** for that **STTEC Period** shall cease to have effect;
- (iii) state the **STTEC Charge**.
- (iv) be open for acceptance by the **User** within 24 hours of receipt of the faxed copy of the **STTEC Offer**.

3.6.4 A **User** may accept a **STTEC Offer** within 24 hours of receipt of the faxed copy of the **STTEC Offer**. Acceptance of a **STTEC Offer** shall be made by the **User** executing and faxing back the Appendix C sent to the **User** as part of the **STTEC Offer**. A **STTEC Offer** lapses if not accepted within such period.

3.6.5 The dates referred to at Paragraphs 3.2.1 and 3.3.3 of this Appendix 3 are:-

- (i) in the case of a **Request for a STTEC Authorisation**, six weeks before the start date for the **STTEC Period**; and

- (ii) in the case of an **Application for a STTEC Offer**, two weeks before the start date for the **STTEC Period**.

3.6.6 The date referred to at Paragraph 3.4.6 of this Appendix 3 is:-

- (i) in the case of a **Request for a STTEC Authorisation**, four weeks before the start date for the **STTEC Period**;
- (ii) in the case of an **Application for a STTEC Offer**, seven days before the start date for the **STTEC Period**.

3.6.7 **The Company** may publish the following information in respect of **STTEC Authorisations**, and **STTEC Offers** which are accepted:-

1. details of the **STTEC Period**;
2. maximum and minimum amount in MW requested;
3. identity of the **User**;
4. the **Connection Site** or site of **Connection**,

in such form and manner as shall be prescribed by **The Company** from time to time.

3.6.8 **The Company** may publish the following information in respect of **Requests for a STTEC Authorisation** and **Applications for a STTEC Offer** which in either case are not granted and **STTEC Offers** which are not accepted:-

1. details of the **STTEC Period**;
2. maximum and minimum amount in MW requested,

in such form and manner as shall be prescribed by **The Company** from time to time.

3.6.9 The **User** consents to the publication by **The Company** of the information referred to above.

#### **4 LIMITED DURATION TRANSMISSION ENTRY CAPACITY**

## 4.1 Background

4.1.1 A **User**, who is party to a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** may make an **LDTEC Request** to **The Company** in accordance with this Paragraph of this Appendix 3.

4.1.2 **A User's Access Capacity** for any part of the **LDTEC Period** must not exceed its **Local Capacity Nomination**.

## 4.2 Form of LDTEC Request

4.2.1 An **LDTEC Request** must be received by **The Company** no later than:

- (i) in cases where the requested **LDTEC Period** is 9 months or exceeds 9 months, 7 weeks and one **Business Day** before the start date for the **LDTEC Period**;
- (ii) in cases where the requested **LDTEC Period** is 6 months or exceeds 6 months but is less than 9 months, 5 weeks and one **Business Day** before the start date for the **LDTEC Period**;
- (iii) in cases where the requested **LDTEC Period** is 3 months or exceeds 3 months but is less than 6 months, 4 weeks and one **Business Day** before the start date for the **LDTEC Period**;
- (iv) in cases where the requested **LDTEC Period** is less than 3 months, 3 weeks and one **Business Day** before the start date for the **LDTEC Period**.

4.2.2 An **LDTEC Request** must be made **by way of email to be sent to the email address specified in the LDTEC Request Form** and confirmed by fax and must attach the **LDTEC Request Form** duly completed and signed on behalf of the **User**.

4.2.3. An **LDTEC Request** shall not be deemed received by **The Company** until the **LDTEC Request Fee** has been paid to **The Company** and until the faxed copy of the **LDTEC Request** is received in accordance with Paragraph 4.2.2 of this Appendix 3.

- 4.2.4 Each **LDTEC Request** must state whether it is for an **LDTEC Block Offer** only, an **LDTEC Indicative Block Offer** only or for both an **LDTEC Block Offer** and an **LDTEC Indicative Block Offer** and must specify one **LDTEC Period** only.
- 4.2.5. An **LDTEC Request** cannot be made prior to the start of the **Financial Year** to which it relates. The **LDTEC Request** must state the **LDTEC Period** and include the minimum and maximum level of MW for the **LDTEC Period** which, for the avoidance of doubt, must be the same for any **LDTEC Block Offer** and **LDTEC Indicative Block Offer** in the same **LDTEC Request**.

### 4.3 Assessment by The Company of LDTEC Requests

- 4.3.1 **The Company** may reject any **LDTEC Request** that is not made in accordance with the provisions of this Paragraph 4 of this Appendix 3.
- 4.3.2 **The Company** will assess **LDTEC Requests** and whether or not to make an **LDTEC Offer** at its absolute discretion.
- 4.3.3 Subject to Paragraphs 4.3.4 and 4.3.5 of this Appendix 3, **The Company** will start assessing an **LDTEC Request** no later than:
- (i) in cases where the requested **LDTEC Period** is 9 months or exceeds 9 months, 7 weeks and one **Business Day** before the start date for the **LDTEC Period**;
  - (ii) in cases where the requested **LDTEC Period** is 6 months or exceeds 6 months but is less than 9 months, 5 weeks and one **Business Day** before the start date for the **LDTEC Period**;
  - (iii) in cases where the requested **LDTEC Period** is 3 months or exceeds 3 months but is less than 6 months, 4 weeks and one **Business Day** before the start date for the **LDTEC Period**;
  - (iv) in cases where the requested **LDTEC Period** is less than 3 months, 3 weeks and one **Business Day** before the start date for the **LDTEC Period**.

- 4.3.4 If **The Company** receives more than one **LDTEC Request** for an **LDTEC Period** or a request for a **Short Term Access Product** or a **TEC Increase Request** which **The Company** believes will impact on each other, **The Company** will assess such requests and the capacity available on the **GB Transmission System** on a first come first served basis such that the request received earliest in time by **The Company** (as recorded by **The Company**) will be considered first in terms of capacity available and then the request received next in time after that, and so on.
- 4.3.5 Where Paragraph 4.3.4 of this Appendix 3 applies and the **TEC Increase Request** was received before the **LDTEC Request** **The Company** shall be entitled to suspend the assessment and making of the **LDTEC Offer** in respect of such **LDTEC Request** as necessary to enable it to make an offer in respect of the **TEC Increase Request**.
- 4.3.6 Where the circumstances in Paragraph 4.3.5 of this Appendix 3 apply **The Company** shall as soon as practicable advise the **User** of such suspension giving an indication of the timescale for the **LDTEC Offer**. The **User** shall be entitled to withdraw its **LDTEC Request** in such circumstances.
- 4.3.7 No priority will be given to any **Users** who have previously made successful requests for **Short Term Access Products**.

#### 4.4 Notification by The Company

- 4.4.1 Each **User** confirms and agrees that **The Company** shall have no liability to it for any **LDTEC Offer** which **The Company** does not make in respect of an **LDTEC Request** in accordance with this Paragraph 4.4 of this Appendix 3.
- 4.4.2 **The Company** is not obliged to make an **LDTEC Offer** in respect of any **LDTEC Request** submitted.
- 4.4.3 An **LDTEC Offer** will only be made within the maximum and minimum range in MW submitted by the **User**.
- 4.4.4 **The Company** shall no later than seven days and one **Business Day** before the start date for the **LDTEC Period**, either make an **LDTEC Offer** in response to the **User's LDTEC Request** or notify such **User** that it

does not intend to make an **LDTEC Offer** in respect of the **LDTEC Request**.

#### 4.5 Charging, Invoicing and Payment

- 4.5.1 Each **User** must pay the **LDTEC Charge** even if the **User** does not use the corresponding **LDTEC**.
- 4.5.2 The provisions of Section 3 of the **CUSC** shall apply in respect of the **LDTEC Charge**.
- 4.5.3 The provisions of Section 6.6 of the **CUSC** shall apply in respect of payment of the **LDTEC Charge**.

#### 4.6 LDTEC Offers

- 4.6.1 An **LDTEC Block Offer** shall:
  - (i) state the **LDTEC Profile** ;
  - (ii) include a revised Appendix C to the relevant **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** (as appropriate) which will detail the **LDTEC Profile** and the **LDTEC Period** for which this applies; and
  - (iii) be open for acceptance by the **User** within one **Business Day** of receipt of the faxed copy of the **LDTEC Offer**.
- 4.6.2 An **LDTEC Indicative Block Offer** shall:
  - (i) state the **LDTEC Indicative Profile**;
  - (ii) include a revised Appendix C to the relevant **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** (as appropriate) which will detail the **LDTEC Indicative Profile** and the **LDTEC Period** for which this applies;
  - (iii) state the **Available LDTEC** for the first seven **LDTEC Weeks** within the **LDTEC Indicative Profile**; and
  - (iv) be open for acceptance by the **User** within one **Business Day** of receipt of the faxed copy of the **LDTEC Offer**.

- 4.6.3 Where the **LDTEC Offer** comprises both an **LDTEC Block Offer** and an **LDTEC Indicative Block Offer** a **User** may only accept one or the other but not both.
- 4.6.4 A **User** may accept an **LDTEC Block Offer** within one **Business Day** of receipt of the faxed copy of the **LDTEC Block Offer**. Acceptance of an **LDTEC Block Offer** shall be made by the **User** executing and faxing back the accepted **LDTEC Block Offer** in which the **User** shall have either confirmed acceptance of the **LDTEC Profile** in full or confirmed acceptance of the **LDTEC Profile** with a cap throughout the profile at a specific MW figure (not exceeding the maximum MW figure in the **LDTEC Profile**). An **LDTEC Block Offer** lapses if not accepted within such period.
- 4.6.5 A **User** may accept an **LDTEC Indicative Block Offer** within one **Business Day** of receipt of the faxed copy of the **LDTEC Indicative Block Offer**. Acceptance of an **LDTEC Indicative Block Offer** shall be made by the **User** accepting the **LDTEC Indicative Block Offer** in which the **User** shall have completed the **Requested LDTEC** figure in MW (which figure shall not exceed the maximum level of MW in the **LDTEC Request**). An **LDTEC Indicative Block Offer** lapses if not accepted within such period.

Notification of weekly available LDTEC

- 4.6.6 Where **The Company** has made an **LDTEC indicative Block Offer** to a **User** and this has been accepted in accordance with Paragraph 4.6.5 of this Appendix 3 **The Company** will by 17.00 on the Friday prior to the eighth **LDTEC Week** and each subsequent Friday during the **LDTEC Period** send to the **User** by email an **LDTEC Availability Notification** which will state the **Available LDTEC** up to the **Requested LDTEC** for the **LDTEC Week** eight weeks ahead.
- 4.6.7 If the **User** accepts the **LDTEC Offer** made in accordance with Paragraph 4.6.4 or 4.6.5 of this Appendix 3, for the **LDTEC Period** Appendix C to the relevant **Bilateral Agreement** will be that accepted by the **User** in accordance with Paragraph 4.6.4 or 4.6.5 of this Appendix 3 as appropriate unless otherwise subsequently amended in accordance with such **Bilateral Agreement** or the **CUSC**. Upon expiry of the

**LDTEC Period** such Appendix C as it relates to that **LDTEC** shall cease to have effect.

#### 4.7 LDTEC reporting provisions

4.7.1 **The Company** may publish the following information in respect of **LDTEC Requests** which are accepted:-

1. details of the **LDTEC Period**;
2. maximum and minimum amount in MW requested;
3. identity of the **User**;
4. the **Connection Site** or site of **Connection**,

in such form and manner as shall be prescribed by **The Company** from time to time.

4.7.2 **The Company** may publish the following information in respect of **LDTEC Requests** which in either case are not withdrawn and for which no **LDTEC Offers** are made and **LDTEC Offers** which are not accepted:-

1. details of the **LDTEC Period**;
2. maximum and minimum amount in MW requested,

in such form and manner as shall be prescribed by **The Company** from time to time.

4.7.3 The **User** consents to the publication by **The Company** of the information referred to above.

## 5. COMMERCIAL LIMITED DURATION TRANSMISSION ENTRY CAPACITY

### 5.1 Background

5.1.1 A **User**, who is party to a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement**, may make a **CLDTEC Request** to **The Company** in accordance with this Paragraph of Appendix 3.

5.1.2 A **User's Access Capacity** for any part of the **CLDTEC Period** must not exceed its **Local Capacity Nomination**.

## 5.2 Form of CLDTEC Request

5.2.1 A **CLDTEC Request** must be received by **The Company** no later than:

(i) in cases where the requested **CLDTEC Period** exceeds 9 months, 9 weeks and one **Business Day** before the start date for the **CLDTEC Period**;

(ii) in cases where the requested **CLDTEC Period** is 6 months or exceeds 6 months but does not exceed 9 months, 6 weeks and one **Business Day** before the start date for the **CLDTEC Period**;

(iii) in cases where the requested **CLDTEC Period** is less than 6 months, 5 weeks and one **Business Day** before the start date for the **CLDTEC Period**.

5.2.2 A **CLDTEC Request** must be made by way of email to be sent to the email address specified in the **CLDTEC Request Form** and confirmed by fax and must attach the **CLDTEC Request Form** duly completed and signed on behalf of the **User**.

5.2.3. A **CLDTEC Request** shall not be deemed received by **The Company** until the **CLDTEC Request Fee** has been paid to **The Company** and until the faxed copy of the **CLDTEC Request** is received in accordance with Paragraph 5.2.2 of this Appendix 3.

5.2.4. A **CLDTEC Request** may not be made before the start of the **Financial Year** to which it relates. The **CLDTEC Request** must state the **CLDTEC Period** in consecutive weeks, include the minimum and maximum level of MW for the **CLDTEC Period**, and the maximum price which the **User** is willing to pay for each week of the **CLDTEC Period**.

## 5.3 Assessment by The Company of CLDTEC Requests

Circumstances where CLDTEC Requests may be rejected or accepted CLDTEC Offers withdrawn

5.3.1 **The Company** may reject any **CLDTEC Request** that is not made in accordance with the provisions of this Paragraph 5 of Appendix 3, including where the **User** fails to provide **The Company** with **Security Cover** in accordance with the provisions of **CUSC** Paragraph 3.21 or where the **User** has a past history of defaulting on its payment or security obligations under the **CUSC**.

5.3.2 In the event that the **User** is during the **CLDTEC Period** in breach of its obligations to provide **The Company** with **Security Cover** in accordance with the provisions of **CUSC** Paragraph 3.21 then **The Company** may revoke the **CLDTEC Offer** and as a consequence the **User's** rights to use the **GB Transmission System** pursuant to this until such time as the breach is remedied.

#### General provisions on assessment of CLDTEC Requests

5.3.3 **The Company** will assess **CLDTEC Requests** and whether or not to make a **CLDTEC Offer** at its absolute discretion, applying the provisions of this Paragraph 5 of Appendix 3 and the **SO ST Release Methodology**.

5.3.4 Subject to Paragraphs 5.3.5 and 5.3.6 of this Appendix 3, **The Company** will start assessing a **CLDTEC Request** no later than:

(i) in cases where the requested **CLDTEC Period** exceeds 9 months, 9 weeks and one **Business Day** before the start date for the **CLDTEC Period**;

(ii) in cases where the requested **CLDTEC Period** exceeds 6 months but does not exceed 9 months, 6 weeks and one **Business Day** before the start date for the **CLDTEC Period**;

(iii) in cases where the requested **CLDTEC Period** is less than 6 months, 5 weeks and one **Business Day** before the start date for the **CLDTEC Period**.

5.3.5 If **The Company** receives more than one **CLDTEC Request** for a **CLDTEC Period** or another request for a **Short Term Access Product** or a **TEC Increase Request** which **The Company** believes will impact on

one another, **The Company** will assess such requests and the capacity available on the **GB Transmission System** on a first come first served basis such that the request received earliest in time by **The Company** (as recorded by **The Company**) will be considered first in terms of capacity available and then the request received next in time after that, and so on.

5.3.6 No priority will be given to any **Users** who have previously made successful requests for **Short Term Access Products** as a result of those requests.

#### **5.4 Notification by The Company**

5.4.1 Each **User** confirms and agrees that **The Company** shall have no liability to it for any **CLDTEC Offers** which **The Company** does not make in respect of a **CLDTEC Request** in accordance with this Paragraph 5.4 of this Appendix 3.

5.4.2 **The Company** is not obliged to make a **CLDTEC Offer** in respect of any **CLDTEC Request** submitted.

5.4.3 A **CLDTEC Offer** will only be made at zero or within the maximum and minimum range in MW submitted by the **User**.

5.4.4 **The Company** shall no later than seven days and one **Business Day** before the start date for the **CLDTEC Period**, either make a **CLDTEC Offer** in response to the **User's CLDTEC Request** or notify such **User** that it does not intend to make a **CLDTEC Offer**.

#### **5.5 Charging, Invoicing, Payment and Security Cover**

5.5.1 Each **User** having been made and accepted a **CLDTEC Offer** shall be liable to pay the **CLDTEC Charge** even if the **User** does not use the corresponding **CLDTEC**.

5.5.2 The provisions of Section 6.6 of the **CUSC** shall apply in respect of payment of the **CLDTEC Charge** subject to the following requirements:

(a) Where the **CLDTEC Period** is more than 1 calendar month the **CLDTEC Charge** shall be divided into equal monthly instalments; and

(b) **The Company** shall invoice the **User** for each instalment of the **CLDTEC Charge** on the first day of each month to which the **CLDTEC Period** applies and the **User** shall pay the **CLDTEC Charge** on the 15<sup>th</sup> day of that same month.

5.5.3 For the purposes of Paragraph 3.22 of Section 3, and unless arrangements have been made pursuant to **CUSC** Paragraph 6.6.5, the **User's Security Requirement** for the duration of the **CLDTEC Period** shall be determined as:

(a) the **CLDTEC Charge** payable by the **User** for each month security for such **CLDTEC Charge** to be in place by the **Business Day** prior to the start of that month for the period of the 1st until the 15<sup>th</sup> day of that month inclusive.

## 5.6 CLDTEC Offers

5.6.1 A **CLDTEC Offer** shall:

(i) state the **CLDTEC Profile** and **CLDTEC Charge**; and

(ii) include a revised Appendix C to the relevant **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** (as appropriate) which will detail the **CLDTEC Profile** and the **CLDTEC Period** for which this applies;

(iii) be open for acceptance by the **User** within one **Business Day** of receipt of the faxed copy of the **CLDTEC Offer**.

5.6.2 A **User** may accept a **CLDTEC Offer** within one **Business Day** of receipt of the faxed copy of the **CLDTEC Offer**. Acceptance of a **CLDTEC Offer** shall be made by the **User** executing and faxing back the accepted **CLDTEC Offer**. A **CLDTEC Offer** lapses if not accepted within such period.

## 5.7 CLDTEC reporting provisions

5.7.1 **The Company** may publish the following information in respect of **CLDTEC Requests** which are accepted or not accepted:-

1. details of the **CLDTEC Period**;
2. maximum and minimum amount in MW requested;
3. price paid by the **User** in accepting the **CLDTEC Offer**;
4. identity of the **User**;
5. the **Node**,

in such form and manner as shall be prescribed by **The Company** from time to time.

5.7.2 The **User** consents to the publication by **The Company** of the information referred to above.

## 6. **SO Sort Term Release Methodology**

6.1 **The Company** shall prepare and maintain an **SO ST Release Methodology** in accordance with Paragraph 6.2 or 6.3 setting out:

6.1.1 the methodology to be adopted in the assessment of constraint cost;

6.1.2 the methodology to be adopted to determine the MW capacity that can be released;

6.1.3 that, and detailing how, the bids for **2 Day Ahead SO Release** and **5 Week Ahead SO Release** will be assessed in price order and that bids will not be accepted where they exceed the forecast constraint cost;

6.1.4 detailing the matters which will, in the case of **CLDTEC**, be taken into account in setting the **CLDTEC Charge** and MW volume;

6.1.5 contain the forms for applications for **CLDTEC** and bids for **2 Day Ahead SO Release** and **5 Week Ahead SO Release**; and

6.1.6 addressing any other matters considered by **The Company** to be necessary.

6.2 Within 3 months of **CUSC Amendment Proposal 161** becoming an **Approved Amendment** **The Company** shall make an **Amendment Proposal** to provide for the **SO ST Release Methodology** and for it to be incorporated within the **CUSC**.

6.3 In the event that such **Amendment Proposal** or any **Alternative Amendment** is not approved **The Company** shall prior to the **Implementation Date** for **CUSC Amendment Proposal 161**:

6.3.1 prepare a draft of the **SO ST Release Methodology** and publish it on **The Company's website** for a period of 28 days for **CUSC Parties** to provide comments to **The Company**.]

6.3.2 Following this 28 day period of consultation, **The Company** shall publish the final **SO ST Release Methodology** on **The Company** website.

6.3.3 **The Company** shall review the **SO ST Release Methodology** annually and assess whether any amendments are required. If **The Company's** view is that no amendments are required **The Company** shall publish its view on **The Company** website.

6.3.4 If in **The Company's** view amendments are required to the **SO ST Release Methodology** such amendment will be undertaken in accordance with the process in Paragraph 6.3.1 to 6.3.3 of this Appendix 3.

## **7. 2 Day Ahead SO Release**

### **7.1 Background**

7.1.1 **The Company** shall hold a **2 Day Ahead SO Release Auction** on the days and in accordance with the principles set out in the **SO ST Release Methodology**.

7.1.2 A **User**, who is party to a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement**, may apply for **2 Day Ahead SO Release** in accordance with the procedures set out in this Paragraph 7 of Appendix 3.

7.1.3 A **User's Access Capacity** for any part of the period for which a **User** applies for **2 Day Ahead SO Release** must not exceed its **Local Capacity Nomination**.

7.1.4 Each **2 Day Ahead SO Release Bid Form** will constitute an unconditional and irrevocable offer by the **User** to **The Company** up to the quantity (in whole

MW) and at the price per MW set out in the **2 Day Ahead SO Release Bid Form**.

## **7.2 Form of 2 Day Ahead SO Release Auction**

### **7.2.1 Submission of Bid**

(a) **Users** wishing to apply for **2 Day Ahead SO Release** shall complete the **2 Day Ahead SO Release Bid Form** and submit it, duly completed and signed by an authorised representative of the **User**, to **The Company** by **Close of Bids** by:

(i) submitting by email the electronic version of the **2 Day Ahead SO Release Bid Form** to the email address specified in the **2 Day Ahead SO Release Bid Form**; and

(ii) submitting by fax a hard copy of the **2 Day Ahead SO Release Bid Form**.

(b) In the event of any conflict between bids in the emailed **2 Day Ahead SO Release Bid Form** and the faxed copy the faxed copy will prevail.

(c) Either the electronic or the hard copy of a **2 Day Ahead SO Release Bid Form** must be received by **The Company** before **Close of Bids** for the bid to be valid. If neither the electronic nor hard copy bid forms are received by **Close of Bids** then the bids will be rejected in their entirety.

(d) All **2 Day Ahead SO Release Bid Forms** submitted under this paragraph must be unqualified and unconditional and may not be withdrawn after **Close of Bids**.

(e) It is a condition of any application for **2 Day Ahead SO Release** where the **User** specifies a **Buy Back Price** that prior to submitting such application a **User** has entered into a **SO Release Transmission Related Agreement** with **The Company**.

### **7.2.2 Content of Bid**

A **User** wishing to submit a **2 Day Ahead SO Release Bid Form** pursuant to Paragraph 7.2.1 of this Appendix

3 shall ensure that it submits the following information as part of its **2 Day Ahead SO Release Bid Form**:

- (a) the identity of the **User**;
- (b) details of the relevant **Bilateral Connection Agreement** or **Embedded Generation Agreement**;
- (c) the **2 Day Ahead SO Release Period** being bid for by the **User**, such period starting at 05.00 am on day D and finishing at 04.49 am on day D+1;
- (d) details of the **Node** in relation to which the bid is made;
- (e) the volume (in whole MW) and any minimum volume of capacity being bid for by the **User**; and
- (f) the price per MW at which the **User** is bidding for **2 Day Ahead SO Release**; and
- (g) where the **User** wishes to do so, and subject to Paragraph 7.2.1(e) of this Appendix 3, it may also include the **User's Buy Back Price**; and
- (h) such other information as may be specified in the **SO ST Release Methodology**.

### 7.2.3 Assessment by The Company and Allocation of Capacity

7.2.3.1 **The Company** shall assess any bids submitted by a **User** pursuant to Paragraphs 7.2.1 and 7.2.2 of this Appendix 3 in accordance with the criteria set out in the **SO ST Release Methodology** and shall reject any **2 Day Ahead SO Release Bid Forms** not made in accordance with the provisions of this Paragraph 7 of Appendix 3 and, where relevant, the **SO ST Release Methodology** including where the **User** fails to provide **The Company** with **Security Cover** in accordance with the provisions of **CUSC** Paragraph 3.21 or where the **User** has a past history of defaulting on its payment or security obligations under the **CUSC**.

7.2.3.2 In the event that the **User** is during the **2 Day Ahead SO Release Period** in breach of its obligations to provide **The Company** with **Security Cover** in accordance with the provisions of **CUSC** Paragraph 3.21 then **The Company** may revoke the **2 Day SO Release Acceptance** and as a consequence the **User's** rights to use the **GB Transmission System** pursuant to this until such time as the breach is remedied.

#### 7.2.4 Notification by **The Company**

(a) Each **User** confirms and agrees that **The Company** shall have no liability to it for any **2 Day Ahead SO Release Acceptance** which **The Company** does not make, in respect of a submitted **2 Day Ahead SO Release Bid Form** in accordance with this Paragraph 7.2.4 of this Appendix 3.

(b) **The Company** is not obliged to make a **2 Day Ahead SO Release Acceptance** in respect of any **2 Day Ahead SO Release Bid Form** submitted.

(c) A **2 Day Ahead SO Release Acceptance** will only be made at the price bid for by the **User** and at or above the minimum volume in MW submitted by the **User**.

(d) **The Company** shall, no later than by 22.30 hours on the day that a **User** has submitted a **2 Day Ahead SO Release Bid Form** in accordance with Paragraph 7.2.1 of this Appendix 3, either issue a **2 Day Ahead SO Release Acceptance** (which will specify the volume (in whole MW) awarded to the **User** and price) or notify such **User** that it does not intend to issue a **2 Day Ahead SO Release Acceptance**.

#### 7.2.5 Charging, Invoicing, Payment and Security

##### Payment Provisions

(a) Where a **2 Day Ahead SO Release Acceptance** has been issued to a **User**, the

**User shall be liable to pay the 2 Day Ahead SO Release Charge as follows:**

(i) **Payment shall be due 29 days after the SO Release Day which is the subject of the 2 Day Ahead SO Release Acceptance.**

(ii) **The Company shall invoice Users on the first or fifteenth day of the month as applicable for any SO Release Days not previously invoiced, or where such days are not Business Days, on the first Business Day following the first or fifteenth day of the month as applicable and payment shall be due on or before the date specified in the said invoice.**

(b) **The provisions of Paragraph 6.6 of Section 6 of the CUSC shall apply in all other respects to this Paragraph 7 of this Appendix 3, subject to this section prevailing in the case of any inconsistencies.**

#### **Security Requirement**

(c) **For the purposes of Paragraph 3.22 of Section 3, where a 2 Day Ahead SO Release Acceptance has been issued to a User, and unless arrangements have been made pursuant to CUSC Paragraph 6.6.5, the User's Security Requirement shall be determined as the 2 Day Ahead SO Release Charge payable in respect of the 2 Day Ahead SO Release Period bid for by the User security for such to be in place by the Business Day prior to the start of that 2 Day Ahead SO Release Period until the day 29 days after the start of the 2 Day Ahead SO Release Period**

### **7.3 Post-allocation information**

7.3.1 **Following each 2 Day Ahead SO Release Auction, The Company shall within 1 hour of Close of Bids publish the following information in respect of each Node:**

1. **details of each 2 Day Ahead SO Release Bids where a 2 Day Ahead SO Release Acceptance has been issued;**

2. details of each **2 Day Ahead SO Release Acceptance** issued;

3. details of each **2 Day Ahead SO Release Bid** where a **2 Day Ahead SO Release Acceptance** has not been issued.

in such form and manner as shall be prescribed by **The Company** from time to time.

7.3.2 The **User** consents to the publication by **The Company** of the information referred to above.

#### **7.4 Buy Back Price**

7.4.1 Where a **2 Day Ahead SO Release Acceptance** has been issued in respect of a **2 Day Ahead SO Release Bid** with a **Buy Back Price**:

7.4.1.1. During the **2 Day Ahead SO Release Period** the **User** shall not, in respect of the MW that are the subject of the **2 Day Ahead SO Release**, submit into the **Balancing Mechanism** a **Bid Price** less than the **Buy Back Price**; and

7.4.1.2. In the event that the **User** does not comply with the provisions of Paragraph 7.4.1.1 above then the provisions of the **SO Release Transmission Related Agreement** shall apply.

### **8. 5 WEEK AHEAD SO RELEASE**

#### **8.1 Background**

8.1.1 **The Company** shall hold a **5 Week Ahead SO Release Auction** on the days and in accordance with the principles set out in the **SO ST Release Methodology**.

8.1.2 A **User**, who is party to a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement**, may apply for **5 Week Ahead SO Release** in accordance with the auction procedures set out in this Paragraph 8 of this Appendix 3.

8.1.3 A **User' s Access Capacity** for any part of the period for which a **User** applies for **5 Week Ahead SO Release** must not exceed its **Local Capacity Nomination**.

8.1.4 Each **5 Week Ahead SO Release Bid Form** will constitute an unconditional and irrevocable offer by the **User** to **The Company** up to the quantity (in whole MW) and at the price per MW set out in the **5 Week Ahead SO Release Bid Form**.

## 8.2 Form of 5 Week Ahead SO Release Auction

### 8.2.1 Submission of Bid

(a) **Users** wishing to apply for **5 Week Ahead SO Release** shall complete the **5 Week Ahead SO Release Bid Form** and submit it, duly completed and signed by an authorised representative of the **User**, to **The Company** by **Close of Bids** by:

(i) submitting by email the electronic version of the **5 Week Ahead SO Release Bid Form** to the email address specified in the **5 Week Ahead SO Release Bid Form**; and

(ii) submitting by fax a hard copy of the **5 Week Ahead SO Release Bid Form**.

(b) In the event of any conflict between bids in the emailed **5 Week Ahead SO Release Bid Form** and the faxed copy the faxed copy will prevail.

(c) Either the electronic or the hard copy of a **5 Week Ahead SO Release Bid Form** must be received by **The Company** before **Close of Bids** for the bid to be valid. If neither the electronic nor hard copy bid forms are received by **Close of Bids** then the bids will be rejected in their entirety.

(d) All **5 Week Ahead SO Release Bid Form** submitted under this paragraph must be unqualified and unconditional and may not be withdrawn after **Close of Bids**.

(e) It is a condition of any application for **5 Week Ahead SO Release** where the **User** specifies a **Buy Back Price** that prior to submitting such

application a **User** has entered into a **SO Release Transmission Related Agreement with The Company**.

### 8.2.2 Content of Bid

A **User** wishing to submit a **5 Week Ahead SO Release Bid Form** pursuant to Paragraph 8.2.1 of this Appendix 3 shall ensure that it submits the following information as part of its **5 Week Ahead SO Release Bid Form**:

- (a) the identity of the **User**;
- (b) details of the relevant **Bilateral Connection Agreement** or **Embedded Generation Agreement**;
- (c) the **5 Week Ahead SO Release Period** being bid for by the **User**, such period starting at 05.00 am on the Monday of Week 6 and finishing at 04.49 am on the Monday of Week 7;
- (d) details of the **Node** in relation to which the bid is made;
- (e) the price per MW at which the **User** is bidding for **5 Week Ahead SO Release**; and
- (f) the volume (in whole MW) and any minimum volume of capacity being bid for by the **User**; and
- (g) where the **User** wishes to do so, and subject to Paragraph 8.2.1(e) of this Appendix 3, it may also include the **User's Buy Back Price**; and
- (h) such other information as may be specified in the **SO ST Release Methodology**.

### 8.2.3 Assessment by The Company and Allocation of Capacity

8.2.3.1 **The Company** shall assess any bids submitted by a **User** pursuant to Paragraphs 8.2.1 and 8.2.2 of this Appendix 3 in accordance with the criteria set out in the **SO ST Release Methodology** and shall reject any **5 Week**

**Ahead SO Release Bid Forms** not made in accordance with the requirements of this Paragraph 8 of Appendix 3 and, where relevant, the **SO ST Release Methodology** including where the **User** fails to provide **The Company** with **Security Cover** in accordance with the provisions of **CUSC** Paragraph 3.21 or where the **User** has a past history of defaulting on its payment or security obligations under the **CUSC**.

8.2.3.2 In the event that the **User** is during the **5 Week SO Release Period** in breach of its obligations to provide **The Company** with **Security Cover** in accordance with the provisions of **CUSC** Paragraph 3.21 then **The Company** may revoke the **5 Week SO Release Acceptance** and as a consequence the **User's** rights to use the **GB Transmission System** pursuant to this until such time as the breach is remedied.

#### 8.2.4 Notification by The Company

- (a) Each **User** confirms and agrees that **The Company** shall have no liability to it for any **5 Week Ahead SO Release Acceptance** which **The Company** does not issue in respect of a submitted **5 Week Ahead SO Release Bid Form** in accordance with this Paragraph 8.2.4 of this Appendix 3.
- (b) **The Company** is not obliged to issue a **5 Week Ahead SO Release Offer** in respect of any **5 Week Ahead SO Release Bid Form** submitted.
- (c) A **5 Week Ahead SO Release Acceptance** will only be issued at the price bid for by the **User** and within the maximum and minimum range in **MW** submitted by the **User**.
- (d) **The Company** shall, no later than by 16.00 hours on the Wednesday of the week following the week in which a **User** has submitted a **5 Week Ahead SO Release Bid Form** in accordance with Paragraph 8.2.1 of this Appendix 3 (Week 2), either issue a **5 Week Ahead SO Release Acceptance** (which will specify the volume awarded to the **User**) or

notify such **User** that it does not intend to issue a **5 Week Ahead SO Release Acceptance**.

- (e) Where **Close of Bids** occurred on the first **Business Day** following a Wednesday that was a Christmas Day, Boxing Day or New Year's Day, **The Company** shall comply with the notification requirements set out in Paragraph 8.2.4(d) of this Appendix 3 by 16.00 hours on the day that is 7 days from the day on which **Close of Bids** occurred.

### 8.2.5 Charging, Invoicing and Payment

#### Payment Provisions

- (a) Where a **5 Week Ahead SO Release Acceptance** has been issued to a **User**, the **User** shall be liable to pay the **5 Week Ahead SO Release Charge** as follows:
  - (i) **The Company** shall invoice the **User** on the first or fifteenth day of the month as applicable in accordance with the **SO ST Release Methodology**; and
  - (iii) payment of the **5 Week Ahead SO Release Charge** shall be due within 14 days of the date of such invoice.
- (b) The provisions of Paragraph 6.6 of Section 6 of the **CUSC** shall apply in all other respects to this Paragraph 8 of this Appendix 3, subject to this section prevailing in the case of any inconsistencies.

### Security Cover

- (c) For the purposes of Paragraph 3.22 of Section 3, where a **5 Week Ahead SO Release Acceptance** has been issued to a **User**, and unless arrangements have been made pursuant to **CUSC** Paragraph 6.6.5, the **User's Security Requirement** in respect of the **5 Week Ahead SO Release Charge** shall be the **5 Week Ahead SO Release Charge** for the **5 Week Ahead SO Release Period** any security to be put in place for such period by the **Business Day** prior to the start of the **5 Week Ahead SO Release Period**.

## **8.3 Post-allocation information**

8.3.1 Following each **5 Week Ahead SO Release Auction**, **The Company** shall publish the following information: in respect of each **Node**:

1. details of each **5 Week Ahead SO Release Bids** where a **5 Week Ahead SO Release Acceptance** has been issued;
2. details of each **5 Week Ahead SO Release Acceptance** issued;
3. details of each **5 Week Ahead SO Release Bid** where a **5 Week Ahead SO Release Acceptance** has not been issued,

in such form and manner as shall be prescribed by **The Company** from time to time.

8.3.2 The **User** consents to the publication by **The Company** of the information referred to above.

## **8.4 Buy Back Price**

8.4.1 Where a **5 Week Ahead SO Release Acceptance** has been issued in respect of a **5 Week Ahead SO Release Bid** with a **Buy Back Price**:

8.4.1.1. During the **5 Week Ahead SO Release Period** the **User** shall not, in respect of the MW that are the subject of the **5 Week Ahead SO Release**, submit into the **Balancing**

**Mechanism a Bid Price less than the Buy Back Price; and**

8.4.1.2. In the event that the **User** does not comply with the provisions of Paragraph 8.4.1.1 above then the provisions of the **SO Release Transmission Related Agreement** shall apply.

## **9. ENTRY OVERRUN**

### **9.1 Background**

A **User**, who is party to a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** may, once any **Transmission Connection Asset Works** and **LCN Transmission Reinforcement Works** have been completed where required, export power on to the **GB Transmission System** in excess of its **Access Capacity** and up to its **LCN**.

### **9.2 Charging, Invoicing, Payment and Security**

#### Charging and Payment provisions

9.2.1 The **User** shall be liable to pay **Entry Overrun Charges** calculated in accordance with the **Use of System Charging Methodology**.

9.2.2 On Friday of each week or where such day is not a **Business Day**, on the first **Business Day** following the Friday **The Company** shall send an invoice to a **User** for any **Settlement Days** where the **User** has utilised **Entry Overrun** and which have not previously been invoiced.

9.2.3 Where a **User** has received an invoice from **The Company** pursuant to paragraph 9.2.2 of this Appendix, the **User** shall pay such invoice on or before the date specified in such invoice.

#### 9.2.5 Reconciliation

##### 9.2.5.1 Initial Reconciliation Statement

As soon as reasonably practicable and in any event by 30 June in each **Financial Year** **The Company** shall calculate in accordance with the **Statement of the Use of System Charging Methodology** the **Overrun Charges** that would have been payable by the **User** during each month during the preceding **Financial Year** (the "**Actual Overrun Amount**"). **The Company**

shall then compare the **Actual Overrun Amount** with the **Overrun Charges** paid by the **User** each month during that preceding **Financial Year** (the "**Notional Overrun Amount**"). Then as soon as reasonably practicable and in any event by 30 June **The Company** shall prepare an initial **Entry Overrun** reconciliation statement (the "**Initial Entry Overrun Reconciliation Statement**") in respect of **Entry Overrun Charges** and send it to the **User**. Such statement shall specify the **Actual Overrun Amount** and the **Notional Overrun Amount** of **Entry Overrun Charges** for each month during the relevant **Financial Year** and, in reasonable detail, the information from which such amounts were derived and the manner in which they were calculated.

9.2.5.2 Together with the **Initial Entry Overrun Reconciliation Statement** **The Company** shall issue a credit note in relation to any sum shown by the **Initial Entry Overrun Reconciliation Statement** to be due to the **User** or an invoice in respect of sums due to **The Company** and in each case interest thereon calculated pursuant to Paragraph 9.2.5.5 to this Appendix 3.

#### 9.2.5.3 Final Reconciliation Statement

(a) **The Company** shall as soon as reasonably practicable following receipt by it of the **Final Reconciliation Settlement Run** or **Final Reconciliation Volume Allocation Run** as appropriate in respect of the last **Settlement Day** in each **Financial Year** issue a further **Entry Overrun** reconciliation statement (the "**Final Entry Overrun Reconciliation Statement**") in respect of **Entry Overrun Charges** payable in respect of each month of that **Financial Year** showing:-

(i) any change in the **Entry Overrun Charges** from those specified in the **Initial Entry Overrun Reconciliation Statement** provided in accordance with Paragraph 9.2.5.1

(ii) whether the change represents a reconciliation payment owing by **The Company** to a **User** or by a **User** to **The Company**;

(iii) the amount of interest determined in accordance with Paragraph 9.2.5.5 below; and

(iv) the information from which the amounts in (i) and (iii) above are derived and the manner of their calculation.

(b) Together with the **Final Entry Overrun Reconciliation Statement** **The Company** shall issue a credit note in relation to any sum shown in the **Final Entry Overrun Reconciliation Statement** to be due to the **User** or an invoice in respect of sums due to **The Company** and in each case interest thereon calculated pursuant to Paragraph 9.2.5.5.

(c) Payment of any invoice issued pursuant to Paragraph 9.2.5.3(b) above or the application of any credit note issued pursuant to that paragraph against any liability of the **User** to **The Company** for **Entry Overrun Charges** will be in full and final settlement of all **Entry Overrun Charges** for the **Financial Year** to which the invoice or credit note relates provided that nothing in this Paragraph 9.2.5.3(c) shall affect the rights of the parties under the provisions of **CUSC** Paragraph 7.3.5.

9.2.5.4 The right to submit **Initial Entry Overrun Reconciliation Statements** and **Final Entry Overrun Reconciliation Statements** and the consequential invoices and/or credit notes shall survive the termination of the **User's** rights under the **CUSC** and the parties agree that the provisions contained in Paragraph 9.2.5 shall continue to bind them after such termination (the version in existence at the date of termination being the applicable version in the case of any amendments).

#### 9.2.5.5 General Provisions

(a) Invoices issued under Paragraph 9.2.5.2 and 9.2.5.3(b) above shall be payable within 30 days of the date of the invoice.

(b) Interest on all amounts due under this Paragraph 9.2.5 shall be payable by the paying **CUSC Party** to the other on such amounts from the date of payment applicable to the month concerned until the date of actual payment of such amounts and such interest shall be calculated on a daily basis at a rate equal to the **Base Rate** during such period.

9.2.6 The provisions of Paragraph 6.6 of Section 6 of the **CUSC** shall apply in all other respects to this Paragraph 9 of Appendix 3, subject to this section prevailing in the case of any inconsistencies.

#### Security Cover Provisions

9.2.7 For the purposes of Paragraph 3.22 of Section 3, and unless arrangements have been made pursuant to **CUSC** Paragraph 6.6.5, the **User's Security Requirement** shall be determined as the **Entry Overrun Charges** over a 29 day period with any security to be in place by the **Business Day** prior to the period to be secured

### 9.3 Entry Overrun Reporting Provisions

The **Company** shall regularly publish information on historic **Entry Overrun** prices (which may initially need to be simulated) to assist **Generators** in deciding how best to export power on to the **GB Transmission System**.

### 9.4 Monthly Forecast for Entry Overrun

On or before the end of the second week of each month, each **User** shall supply **The Company** with a forecast maximum **Entry Overrun** figure (in MW) for the following month, to inform **The Company** of the forecast generation to be used for the purposes of setting **Entry Overrun Charges**.

## 10. TEMPORARY TEC EXCHANGES

### 10.1 Background

10.1.1 Two **Users** that are party to a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** may make a **Temporary TEC Exchange** in accordance with this Paragraph of Appendix 3.

10.1.2 **Temporary TEC Exchanges** shall apply only in respect of products that provide **Use of System** rights the validity of which is limited to the **Financial Year** in which the **Temporary TEC Exchange** takes place.

10.1.3 **Temporary TEC Exchanges** shall apply to **TEC** as well as to the **Short Term Access Right Products**.

- 10.1.4 **A User's Access Capacity** for any part of the period for which a User applies for **Temporary TEC Exchange Rate Request** must not exceed its **Local Capacity Nomination**.

## 10.2 Form of Temporary TEC Exchange Rate Request

- 10.2.1 A **Temporary TEC Exchange Rate Request** must be received by **The Company** no later than:

- (i) in cases where the requested **Temporary TEC Exchange Period** is 9 months or more, 10 weeks and one **Business Day** before the start date for the **Temporary TEC Exchange Period**;
- (ii) in cases where the requested **Temporary TEC Exchange Period** is 6 months or more but is less than 9 months, 7 weeks and one **Business Day** before the start date for the **Temporary TEC Exchange Period**;
- (iii) in cases where the requested **Temporary TEC Exchange Period** is 3 months or more but is less than 6 months, 6 weeks and one **Business Day** before the start date for the **Temporary TEC Exchange Period**;
- (iv) in cases where the requested **Temporary TEC Exchange Period** is less than 3 months, 4 weeks and one **Business Day** before the start date for the **Temporary TEC Exchange Period**.

- 10.2.2 A **Temporary TEC Exchange Rate Request** must be made by way of email to be sent to the email address specified in the **Temporary TEC Exchange Rate Request Form** and confirmed by fax and must attach the **Temporary TEC Exchange Rate Request Form** duly completed and signed by the **Joint Temporary TEC Exchange Users**.

- 10.2.3 A **Temporary TEC Exchange Rate Request** shall not be deemed received by **The Company** until the **Temporary TEC Exchange Rate Request Fee** has been paid to **The Company** and until the faxed copy of the **Temporary TEC Exchange Rate Request** is received in accordance with Paragraph 10.2.2 of Appendix to this Section 3 of the **CUSC**.

- 10.2.4 Each **Temporary TEC Exchange Rate Request** must state one **Temporary TEC Exchange Period** only. Each **Temporary TEC Exchange Rate Request** must be by reference to whole MW only.
- 10.2.5 A **Temporary TEC Exchange Rate Request** cannot be made prior to the start of the **Financial Year** to which it relates.
- 10.2.6 A **Temporary TEC Exchange Rate Request** cannot be made unless **The Company** has published within that **Financial Year** a **Temporary TEC Exchange Notification of Interest Form** from the **Temporary TEC Exchange Donor User**.
- 10.2.7 A **Temporary TEC Exchange Rate Request** can be withdrawn at any time upon written notice from the **Joint Temporary TEC Exchange Users**.
- 10.2.8 The **Temporary Donated TEC** stated in a **Temporary TEC Exchange Rate Request** shall not exceed the **Transmission Entry Capacity** of the **Temporary TEC Exchange Donor User**.

### **10.3 Assessment by The Company of Temporary TEC Exchange Rate Requests**

- 10.3.1 **The Company** may reject any **Temporary TEC Exchange Rate Request** that is not made in accordance with the provisions of this Paragraph 10 of Appendix 3.
- 10.3.2 **The Company** will assess **Temporary TEC Exchange Rate Requests** and whether or not to grant **Temporary TEC Exchange Rate Requests** at its absolute discretion.
- 10.3.3 Subject to Paragraph 10.3.4 and 10.3.5 of Appendix 3, **The Company** will start assessing a **Temporary TEC Exchange Rate Request** no later than:
  - (i) in cases where the requested **Temporary TEC Exchange Period** is 9 months or more, 10 weeks and one **Business Day** before the start date for the **Temporary TEC Exchange Period**;

- (ii) in cases where the requested **Temporary TEC Exchange Period** is 6 months or more but is less than 9 months, 7 weeks and one **Business Day** before the start date for the **Temporary TEC Exchange Period**;
- (iii) in cases where the requested **Temporary TEC Exchange Period** is 3 months or more but is less than 6 months, 6 weeks and one **Business Day** before the start date for the **Temporary TEC Exchange Period**;
- (iv) in cases where the requested **Temporary TEC Exchange Period** is less than 3 months, 4 weeks and one **Business Day** before the start date for the **Temporary TEC Exchange Period**.

10.3.4 If **The Company** receives more than one **Temporary TEC Exchange Rate Request** for a **Temporary TEC Exchange Period** or a request for a **Short Term Access Product** or a **TEC Increase Request** which **The Company** believes will impact on one another, **The Company** will assess such requests and the capacity available on the **GB Transmission System** on a first come first served basis such that the request received earliest in time by **The Company** (as recorded by **The Company**) will be considered first in terms of capacity available and then the request received next in time after that, and so on.

10.3.5 **Where under Paragraph 10.3.4 of this Appendix 3, The Company** shall be entitled to suspend the assessment and making of the **Temporary TEC Exchange Rate Offer** in respect of such **Temporary TEC Exchange Rate Request** or the **LDTEC Offer** in respect of such **LDTEC Request** or the **STTEC Offer** in respect of such **STTEC Request** or the **Offer** in respect of such **TEC Increase Request**.

10.3.6 Where the circumstances in Paragraph 10.3.5 of this Appendix 3 apply **The Company** shall as soon as practicable advise the **Joint Temporary TEC Exchange Users** of such suspension giving an indication of the timescale for the **Temporary Exchange Rate Offer**. Where both **Joint Temporary TEC Exchange Users** agree, the **Temporary TEC Exchange Rate Request** can be withdrawn in such circumstances.

10.3.7 No priority will be given to any **Users** who have previously made successful requests for **Short Term Access Products**.

#### **10.4 Notification by The Company**

10.4.1 Each **User** confirms and agrees that **The Company** shall have no liability to it for any **Temporary TEC Exchange Rate Request** which **The Company** does not grant in accordance with this Paragraph 10 of this Appendix 3.

10.4.2 **The Company** is not obliged to grant any **Temporary TEC Exchange Rate Request** submitted.

10.4.3 Any **Temporary TEC Exchange Rate Request** will only be granted provided that during the **Temporary TEC Exchange Period** the **User's Access Capacity** does not exceed its **LCN**.

10.4.4 **The Company** shall no later than seven days and one **Business Day** before the start date for the **Temporary TEC Exchange Period**, by 17:00 on a **Business Day** either make an **Temporary TEC Exchange Rate Offer** in response to the **Temporary TEC Exchange Rate Request** or notify the **Joint Temporary TEC Exchange Users** that it does not intend to grant a **Temporary TEC Exchange Rate Request**.

#### **10.5 Charging, Invoicing and Payment**

Each **Temporary TEC Exchange Recipient User** must pay the **LDTEC Charge** in respect of the **Temporary Received TEC** even if the **User** does not use the corresponding **Temporary Received TEC**.

#### **10.6 Temporary TEC Exchange Rate Offers**

10.6.1 A **Temporary TEC Exchange Rate Offer** shall:

- (i) be made to both the **Temporary TEC Exchange Donor User** and the **Temporary TEC Exchange Recipient User** and state the **Temporary Donated TEC** and **Temporary TEC Exchange Rate**;
- (ii) include in the offer sent to the **Temporary TEC Exchange Donor User** a revised Appendix C

to the relevant **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** (as appropriate) of the **Temporary TEC Exchange Donor User** which will detail the **Temporary Donated TEC** and the **Temporary TEC Exchange Period** for which this applies;

- (iii) include in the offer sent to the **Temporary TEC Exchange Recipient User** a revised Appendix C to the relevant **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** (as appropriate) of the **Temporary TEC Exchange Recipient User** which will detail the **Temporary Received TEC** and the **Temporary TEC Exchange Period** for which this applies; and
- (iv) be open for acceptance by receipt of the faxed copy of the **Temporary TEC Exchange Rate Offer** up to 17:00 the following **Business Day**.

10.6.2 A **Temporary TEC Exchange Rate Offer** must be accepted by both the **Joint Temporary TEC Exchange Users** within the timescales in Paragraph 10.6.1(iv) of this Appendix 3. Acceptance of a **Temporary TEC Exchange Rate Offer** shall be made by executing and faxing back the accepted **Temporary TEC Exchange Rate Offer**. A **Temporary TEC Exchange Rate Offer** lapses if not accepted by both **Temporary TEC Exchange Users** within such period.

10.6.3 If the **Temporary TEC Exchange Rate Offer** is accepted in accordance with Paragraph 10.6.1 of this Appendix 3, for the **Temporary TEC Exchange Period** Appendix C to the relevant **Bilateral Agreements** will be that accepted by the **Joint Temporary TEC Exchange Users**, unless otherwise subsequently amended in accordance with such **Bilateral Agreement** or the **CUSC**. Upon expiry of the **Temporary TEC Exchange Period** such Appendix C as it relates to that **Temporary TEC Exchange Period** shall cease to have effect.

## 10.7 Temporary TEC Exchange reporting and information provisions

10.7.1 **The Company** may publish the following information in respect of **Temporary TEC Exchange Rate Offers** which are accepted:-

1. details of the **Temporary TEC Exchange Period**;
2. details of the **Temporary Donated TEC** and **Temporary Received TEC**;
3. the identity of the **Temporary TEC Exchange Donor User** and the **Temporary TEC Exchange Recipient User**;
4. the **Connection Site** or site of **Connection**,

in such form and manner as shall be prescribed by **The Company** from time to time.

10.7.2 **The Company** may publish the following information in respect of **Temporary TEC Exchange Rate Offers** which are made are not accepted:-

1. details of the **Temporary TEC Exchange Period**;
2. details of the **Temporary Donated TEC** and **Temporary Received TEC**;
3. the identity of the **Temporary TEC Exchange Donor User**;
4. the **Connection Site** or site of **Connection**,

in such form and manner as shall be prescribed by **The Company** from time to time.

10.7.3 **The Company** may publish the following information in respect of **Temporary TEC Exchange Rate Offers** not made:-

1. details of the **Temporary TEC Exchange Period**;
2. details of the **Temporary Donated TEC**;
3. the identity of the **Temporary TEC Exchange Donor User**;

4. the **Connection Site** or site of **Connection**,  
in such form and manner as shall be prescribed by **The Company** from time to time.

10.7.4 The **Temporary TEC Exchange Donor User** and the **Temporary TEC Exchange Recipient User** consent to the publication by **The Company** of the information referred to above.

10.7.5 A **User** may also from time to time request that **The Company** advise other **Users** that such **User** is interested in making a **Temporary TEC Exchange**. Such request must be sent by email and a fax copy made using the **Temporary TEC Exchange Notification of Interest Form**.

10.7.6 **The Company** shall publish such **Temporary TEC Exchange Notification of Interest Form** on its **TEC Register** within 10 **Business Days** of its receipt.

## 11. SHARED ACCESS CAPACITY

### 11.1 Background

11.1.1 A **User**, who is party to a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement**, may enter into a **Shared Access Capacity Notification** with another **User** in accordance with the procedures of this Paragraph 11 of this Appendix 3.

11.1.2 A **Receiving Sharing User**, shall be liable to comply with all the **CUSC** obligations and other relevant obligations with the exception of charging (unless otherwise provided for in the **Statement of the Use of System Charging Methodology**) and provision of security obligations, as if that right arises under its existing **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** as the case may be.

11.1.3 The obligations relating to charging (unless otherwise provided for in the **Statement of the Use of System Charging Methodology**) and provision of security obligations which relate to any **Access Capacity** being shared pursuant to this Paragraph 11 of Appendix 3 shall remain with the **Donating Sharing User** who is granting the other **User** rights to share its **Access Capacity**.

11.1.4 Any **Users** wishing to enter into arrangements to share **Access Capacity** shall make a **Shared Access Capacity Rate Request** to **The Company**.

11.1.5 A **User's Access Capacity** and any **Use Of System** rights exercised pursuant to any **Shared Access Capacity Notification** must not exceed its **Local Capacity Nomination**.

11.1.6 Where a **User** is interested in entering into any sharing arrangements and wishes **The Company** to do so, **The Company** shall include this information on the **LCN\TEC Register**.

## 11.2 Form of Shared Access Capacity Rate Request

11.2.1 A **Shared Access Capacity Rate Request** must be made by way of email to be sent to the email address specified in the **Shared Access Capacity Rate Request Form** and confirmed by fax and must attach the **Shared Access Capacity Rate Request Form** duly completed and signed by all the **Sharing Users**.

11.2.2 A **Shared Access Capacity Rate Request** shall not be deemed received by **The Company** until the **Shared Access Capacity Rate Request Fee** has been paid to **The Company** and until the faxed copy of the **Shared Access Capacity Rate Request Form** is received in accordance with Paragraph 11.2.1 of Appendix 3 to this Section 3 of the **CUSC**.

11.2.3 A **Shared Access Capacity Rate Request** must be received by **The Company** no later than:

(i) in cases where the requested **Sharing Period** exceeds 9 months, 15 weeks and one **Business Day** before the start date for the **Sharing Period**;

(ii) in cases where the requested **Sharing Period** is 6 months or exceeds 6 months but does not exceed 9 months, 12 weeks and one **Business Day** before the start date for the **Sharing Period**;

(iii) in cases where the requested **Sharing Period** exceeds 3 months but is less than 6 months, 11 weeks and one **Business Day** before the start date for the **Sharing Period**.

(iv) in cases where the requested **Sharing Period** is less than 3 months, 9 weeks and one **Business Day** before the start date for the **Sharing Period**.

(v) in cases where the requested **Sharing Period** goes beyond the current **Financial Year**, 19 weeks and one **Business Day** before the start date for the **Sharing Period**.

11.2.4 Each **Shared Access Capacity Rate Request** must state the **Sharing Users**, the **Sharing Power Stations**, the **Nodes** relating to the **Sharing Power Stations**, the maximum volume in whole MW that it is proposed to share and the **Sharing Period**.

11.2.5 A **Shared Access Capacity Rate Request** can be withdrawn at any time upon written notice from the **Sharing users**.

### 11.3 **Assessment by The Company of Shared Access Capacity Rate Request**

#### Circumstances where Shared Access Capacity Rate Requests may be rejected

11.3.1 **The Company** may reject any **Shared Access Capacity Rate Request** that is not made in accordance with the provisions of this Paragraph 11 of Appendix 3.

#### General provisions on assessment of Shared Access Capacity Rate Requests

11.3.2 Subject to Paragraph 11.3.3 of this Appendix 3, **The Company** will start assessing a **Shared Access Capacity Rate Request** no later than:

(i) in cases where the requested **Sharing Period** exceeds 9 months, 9 weeks and one **Business Day** before the start date for the **Sharing Period**;

(ii) in cases where the requested **Sharing Period** exceeds 6 months but does not exceed 9 months, 6 weeks and one **Business Day** before the start date for the **Sharing Period**;

- (iii) in cases where the requested **Sharing Period** exceeds 3 months but is less than 6 months, 5 weeks and one **Business Day** before the start date for the **Sharing Period**;
- (iv) in cases where the requested **Sharing Period** but is less than 3 months, 3 weeks and one **Business Day** before the start date for the **Sharing Period**; and
- (v) in cases where the requested **Sharing Period** goes beyond the current **Financial Year**, 3 months and one **Business Day** before the start date for the **Sharing Period**.

11.3.3 If **The Company** receives more than one **Shared Access Capacity Rate Request** which **The Company** believes will impact on one another, **The Company** will assess such requests and the exchange rate available on a first come first served basis such that the request received earliest in time by **The Company** (as recorded by **The Company**) will be considered first in terms of capacity available and then the request received next in time after that, and so on.

#### 11.4 Notification by The Company

11.4.1 **The Company** shall provide a **Sharing Exchange Rate Offer** to both of the **Sharing Users** by fax as follows:

- (i) where the **Sharing Period** does not go beyond the current **Financial Year** no later than six weeks and one **Business Day** before the start date for the **Sharing Period**; and
- (ii) where the **Sharing Period** does go beyond the current **Financial Year** no later than seven weeks and one **Business Day** before the start date for the **Sharing Period**

#### 11.5 Sharing Exchange Rate Offers

11.5.1 A **Sharing Exchange Rate Offer** shall state the **Sharing Exchange Rate**

11.5.2 A **Sharing Exchange Rate Offer** must be accepted within 7 days of receipt of the faxed copy of the **Sharing Exchange Rate Offer** and to be effective must be accepted by both the **Sharing Users**. A

**Sharing Exchange Rate Offer** lapses if not accepted by both **Sharing Users** within such period.

11.5.3 Acceptance of the **Sharing Exchange Rate Offer** shall be made by the **Sharing Users** submitting a **Shared Access Notification** to **The Company** and during the **Sharing Period**:

(a) where the **Receiving Sharing User** does not exceed the aggregate of its **Access Capacity** and the **Shared Access Capacity** and provided the **Donating Sharing User** does not exceed its **Access Capacity** less the **Shared Access Capacity Rate** then although the **Receiving Sharing User** is exceeding its **Access Capacity** it shall not be subject to any **Entry Overrun Charges** in respect of such export;

(b) in the event that this is not the case then unless the **Shared Access Capacity Notification**, states otherwise the **Receiving Sharing User** shall be subject to **Entry Overrun Charges** in respect of any such export above its **Access Capacity**.

## 11.6 Consequences of breach of CUSC provisions

11.6.1 The following provision shall apply in the event that **CUSC Amendment Proposal 162** is not approved by the **Authority** or if so approved until **CUSC Amendment Proposal 162**:

11 In the event that the situation in 11.5.3(b) occurs the party responsible for the breach shall, unless the **Shared Access Capacity Notification**, states otherwise be the **Nominated User**.

**END OF APPENDIX 3**

## **Proposed Amendments to CUSC Section 6 under CAP 161 (LCN and Short Term Access Products), 162 (Entry Overrun) and 163 (TEC Sharing)**

Please note that the numbering of the respective paragraphs is given in the heading above each section of text (rather than given next to the paragraph text).

### ***New paragraph 6.6.8 (Payment)***

**6.6.8 With respect to the 2 Day Ahead SO Release Charge, 5 Week Ahead SO Release Charge, CLDTEC Charge and Entry Overrun Charges, the provisions of this Paragraph 6.6 shall apply to the payment and invoicing of such charges but shall be subject to any further invoicing and payment provisions for such charges set out in Appendix 3 to Section 3 of the CUSC.**

### ***Paragraphs 6.30 (Transmission Entry Capacity)***

This paragraph has been moved out of Section 6 and inserted in Appendix 3 to Section 3 as Paragraph 2 of the CUSC. This Appendix now deals with the different types of access products. The text itself has not changed other than to update any references or where specifically highlighted within that text.

### ***Paragraph 6.31 (Short Term Transmission Entry Capacity)***

This paragraph has been moved out of Section 6 and inserted in Appendix 3 to Section 3 Paragraph 3 of the CUSC. This Appendix now deals with the different types of access products. The text itself has not changed other than to update any references or where specifically highlighted within that text.

### ***Paragraph 6.32 (Limited Duration Transmission Entry Capacity)***

This paragraph has been moved out of Section 6 and inserted in Appendix 3 to Section 3 Paragraph 4 of the CUSC. This Appendix now deals with the different types of access products. The text itself has not changed other than to update any references or where specifically highlighted within that text.

### ***Paragraph 6.34 (Temporary TEC Exchanges)***

This paragraph has been moved out of Section 6 and inserted in Appendix 3 to Section 3 as Paragraph 10 of the CUSC. This Appendix now deals with the different types of access products. The text itself has not changed other than to update any references or where specifically highlighted within that text.

### ***General - Renumbering***

Please note that as a result of the proposed amendments the clause numbering has been changed in some instances (as identified in the paragraph headings, above). This has meant that cross-references throughout the document have changed, those changes have not been shown here, unless they appear in paragraphs with more substantial amendments.

## **Proposed Amendments to CUSC Section 9 under CAP 161 (LCN and Short Term Access Products), 162 (Entry Overrun) and 163 (TEC Sharing)**

Please note that the numbering of the respective paragraphs is given in the heading above each section of text (rather than given next to the paragraph text).

### *Paragraph 9.4 (Export of Power from the Interconnector Connection Site)*

#### **9.4 EXPORT OF POWER FROM THE INTERCONNECTOR CONNECTION SITE**

Subject to the other provisions of the **CUSC**, the relevant **Bilateral Connection Agreement** and the **Grid Code** and any **Operating Agreement**, **The Company** shall, as between The Company and a User acting in the category of an Interconnector, accept into the **GB Transmission System** at the ~~Connection Site of an Interconnector~~ power up to the **Transmission Entry Capacity** and (if any) **STTEC** and/or **LDTEC** and/or any **Temporary Received TEC** less any **Temporary Donated TEC** for the relevant **Period** specified Node power generated by such User up to that User's LCN as specified in Appendix C to the relevant **Bilateral Connection Agreement** except to the extent (if any) that **The Company** is prevented from doing so by transmission constraints which could not be avoided by the exercise of **Good Industry Practice**.

### *Paragraph 9.6*

**9.6** The **User** shall not permit the transfer of any amount of electricity onto the **GB Transmission System** in excess of ~~the Transmission Entry Capacity and (if any) STTEC and/or LDTEC and/or any Temporary Received TEC less any Temporary Donated TEC for the relevant Period~~ its LCN specified in Appendix C to the relevant **Bilateral Connection Agreement** or permit the taking of any amounts of electricity off the **GB Transmission System** in excess of the value as specified in Appendix C to the relevant **Bilateral Connection Agreement** save as expressly permitted or instructed pursuant to an **Emergency Instruction** under the **Grid Code** or save as expressly permitted pursuant to any **Operating Agreement** or the **Fuel Security Code** or as may be necessary or expedient in accordance with **Good Industry Practice**.

### *Paragraph 9.10.1 (Use of System Charges - Transmission Network Use of System Charges)*

**9.10.1** Subject to the provisions of the **CUSC**, and any relevant **Bilateral Agreement**, together with the relevant **Charging Statements**, the **User** shall with effect from the relevant date set out in the relevant **Bilateral Agreement**, be liable to pay to **The Company** the **Transmission Network Use of System Charges** ~~and (if appropriate) the STTEC Charge and LDTEC Charge~~ in accordance with the **CUSC** calculated in accordance with the **Statement of Use of System Charges** and the **Statement of the Use of System Charging Methodology**. The

**Company** shall apply and calculate the **Use of System Charges** in accordance with the **Statement of Use of System Charges** and the **Statement of the Use of System Charging Methodology**.

*New paragraph 9.10.2 (Liability for Short Term Access Product Charges)*

**Liability for Short Term Access Product Charges**

**Each User shall, as between The Company and that User, in accordance with this Paragraph 9.10 and Paragraph 6.6 and Appendix 3 to Section 3, be liable where appropriate to pay to The Company the Short Term Access Product Charges in respect of its use of the GB Transmission System applied and calculated in accordance with the Statement of Use of System Charges, Statement of the Use of System Charging Methodology and Appendix 3 to Section 3 and Standard Condition C13 of the Transmission Licence.**

*New paragraph 9.10.3 (Liability for Payment of Entry Overrun Charges)*

**Liability for payment of Entry Overrun Charges**

**9.10.3 Each User shall, as between The Company and that User, in accordance with this Paragraph 9.10 and Paragraph 6.6 and Appendix 3 to Section 3, be liable where appropriate to pay to The Company (or The Company shall be so liable to pay to the User) Entry Overrun Charges in respect of its use of the GB Transmission System over and above its Access Capacity applied and calculated in accordance with the Statement of Use of System Charges and Statement of the Use of System Charging Methodology and Standard Condition C13 of the Transmission Licence.**

*Paragraph 9.22.3 (Use of System Charges - Balancing Services Use of System Charges)*

9.22.3 Each User shall as between The Company and that User provide The Company with **Security Cover** in respect of **Transmission Services Use of System Charges, Short Term Access Products Charges, Entry Overrun Charges** and **Balancing Services Use of System Charges** in accordance with the provisions of Part III of Section ~~3.3~~, **the provisions of Appendix 3 to Section 3 of the CUSC.**

*Paragraph 9.22.4 (Use of System Charges - Balancing Services Use of System Charges)*

9.22.4 Paragraphs 3.21 to 3.24 (Credit Requirements) **and Appendix 3 to Section 3 of the CUSC** as they relate to **Transmission Services Use of System Charges, Short Term Access Products Charges, Entry Overrun Charges** and **Balancing Services Use of System Charges** shall apply as if set out herein in full and as if references to **Generators** were references to **Interconnector Users** and to **Interconnector Error Administrators** (as the case may be).

### ***Renumbering***

**Please note** that as a result of the proposed amendments the clause numbering has been changed in some instances (as identified in the paragraph headings, above). This has meant that cross-references throughout the document have changed, those changes have not been shown here, unless they appear in paragraphs with more substantial amendments.

**CUSC - SECTION 10**  
**TRANSITION ISSUES**

**CONTENTS**

**Deleted: Not used, removed on 15<sup>th</sup> February 2007, dedicated to Transitional Issues¶**

**Part 1 CUSC AMENDMENT PROPOSALS 161-163**

## Part 1

### 10.1 INTRODUCTION

10.1.1 This Section 10 deals with issues arising out of the transition associated with the approval and implementation of **CUSC Amendment Proposal 161** (Short Term SO release) and/or 162 (Overrun) and/or 163 (Sharing) which all introduce the concept of a **Local Capacity Nomination** which forms the basis of a **User's** right to **Use of System**.

10.1.2 The **Access Amendment Proposals** affect **User's** in the categories of **Power Stations** directly connected to the **GB Transmission System**, **Embedded Generators** with a **Bilateral Embedded Generation Agreement** and **Interconnector Owners** and references to **User** or **Applicant** in this Section 10 shall be construed accordingly.

10.1.3 In this Section 10:

- (a) the term "**Access Amendment Proposals**", shall mean **CUSC Amendment Proposals 161** (Short Term SO release), 162 (Overrun) and 163 (Sharing);
- (b) the term "**Agreed LCN**", shall mean a **Local Capacity Nomination** which is different from the **Default LCN** and which has been agreed by **The Company** and the **User**;
- (c) the term "**Applicants**"; shall mean **Users** (or prospective **Users**) who apply during the **LCN Transition Period** for connection to and/or use of the **GB Transmission System**;
- (d) the term "**Application and Offer Amendments**", shall mean those amendments to **CUSC Exhibits B, C, D and E** approved by the first of the **Access Amendment Proposals** to become an **Approved Amendment**;
- (e) the term "**Bilateral Agreement Amendments**", shall mean those amendments to **CUSC Schedule 2 Exhibit 1** (Bilateral Connection Agreement) and **Exhibit 2** (Bilateral Embedded Generation Agreement) and **Exhibit 3** (Construction Agreement) approved by the first of the **Access Amendment Proposals** to become an **Approved Amendment**;

- (f) the term “**Default LCN**” shall mean a **Local Capacity Nomination** at the same or lower MW volume and subject to the same restrictions (unless **The Company** agrees otherwise) as the **Transmission Entry Capacity** within the relevant **Existing CUSC Agreement**;
- (g) the term “**Existing CUSC Agreement**” shall mean a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** pursuant to which a **User** is by the **Relevant Date** connected to and/or using the **GB Transmission System**;
- (h) the term “**LCN Implementation Date**” shall mean the **Implementation Date** for the first of the **Access Amendment Proposals** (unless it is provided to be different in relation to a particular provision),
- (i) the term “**LCN Transition Period**”, means the period from the **Relevant Date** and ending on and including the day before the **LCN Implementation Date** (unless it is provided to be different in relation to a particular provision) and is the period with which this Section 10 deals;
- (j) the term “**New CUSC Agreements**”, shall mean a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** or any agreement to vary the same and the associated **Construction Agreement** but pursuant to which the **User** is not yet connected to and/or using the **GB Transmission System** at the **Relevant Date**;
- (k) the term “**Outstanding Applications**”, shall mean an offer yet to be made to a **User** or prospective **User** of a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** or any agreement to vary the same and the associated **Construction Agreement** at the **Relevant Date** but where the application was made prior to the **Relevant Date**;

- (l) the term “**Outstanding Offers**”, shall mean an offer to a **User** or prospective **User** of a **Bilateral Connection Agreement** or **Bilateral Embedded Generation Agreement** or any agreement to vary the same and the associated **Construction Agreement** which has not been accepted at the **Relevant Date** but is still capable of being accepted; and
- (m) the term “**Relevant Date**” means the day on which the first of the **Access Amendment Proposals** becomes an **Approved Amendment**.

10.1.4 Without prejudice to any specific provision under this Section 10 as to the time within which or the manner in which **The Company** or a **User** should perform its obligations under this Section 10, where **The Company** or a **User** is required to take any step or measure under this Section 10, such requirement shall be construed as including any obligation to:

- (a) take such step or measure as quickly as reasonably practicable; and
- (b) do such associated or ancillary things as may be necessary to complete such step or measure as quickly as reasonably practicable.

## 10.2 LCN TRANSITION

### *Existing Agreements*

10.2.1 Each **User** shall advise **The Company** as soon as practicable and in any event within one month (or such longer period as **The Company** and that **User** agree) of the **Relevant Date** of those **Existing CUSC Agreements**:

- (a) where it wants the **Local Capacity Nomination** to be at a higher or lower MW volume than the **Default LCN**; and

where the MW volume is higher than the **Default LCN** the **User** shall as soon as practicable make a **Modification Application** to **The Company** in respect of the relevant **Existing CUSC Agreement**.

10.2.2 Where a **Modification Application** is made and **Construction Works** are required prior to such increase in MW volume becoming effective **The Company** shall make an offer to amend the relevant **Existing CUSC Agreements** such that

they provide for a **Local Capacity Nomination** at the level proposed and on the same basis as if such **Modification Application** had been made after the **LCN Implementation Date**. The **Existing User** will be required as part of that offer to enter into a **Construction Agreement** and the works will need to be completed prior to that **Local Capacity Nomination** becoming effective. Until that time the **Local Capacity Nomination** shall be the **Default LCN** or such lower **Local Capacity Nomination** as **The Company** and the **User** shall agree.

10.2.3 Except as specifically otherwise provided for in an agreement to vary between **The Company** and the **User** each **Existing CUSC Agreement** shall be read and construed, with effect from the **LCN Implementation Date**, such that:

- (a) the defined terms within it, and the effect of those defined terms, shall, in place of their respective meanings immediately before the **LCN Implementation Date**, be deemed to have the meanings they would have had if those agreements had been entered into after the **LCN Implementation Date**.
- (b) the right to use the **GB Transmission System** is by reference to "**Local Capacity Nomination**" instead of "**Transmission Entry Capacity**" and the clauses within the **Existing CUSC Agreement** are amended in the manner provided for by the **Bilateral Agreement Amendments**.
- (c) Appendix C to the **Existing CUSC Agreement** includes reference to the "**Local Capacity Nomination**" in the manner provided for in the **Bilateral Agreement Amendments**; and
- (d) the **Local Capacity Nomination** is the **Default LCN** or **Agreed LCN** as appropriate.

### ***New Agreements***

10.2.4 Each **User** shall advise **The Company** as soon as practicable and in any event within one month (or such longer period as **The Company** and that **User** agree) of the **Relevant Date** of those **New CUSC Agreements**:

(a) where it wants the **Local Capacity Nomination** to be at a higher or lower MW volume than the **Default LCN**; and/or

(b) those **New CUSC Agreements**; where it wants to amend the **Construction Programme** such that the **Construction Works** are staged to provide for the **Local Capacity Nomination** before the **Transmission Entry Capacity**; and

where the MW volume is higher than the **Default LCN** and/or the **User** wishes to amend the **Construction Programme** the **User** shall as soon as practicable make a **Modification Application** to **The Company** in respect of the relevant **New CUSC Agreement**.

10.2.5 Where a **Modification Application** is made **The Company** shall make an offer to amend the relevant **New CUSC Agreements** such that they provide for a **Local Capacity Nomination** at the MW level proposed and a revised **Construction Programme** on the same basis as if such **Modification Application** had been made after the **LCN Implementation Date** and consistent with the **Bilateral Agreement Amendments**.

10.2.6 Except as specifically agreed otherwise between **The Company** and the **User** each **New CUSC Agreement** shall be read and construed, with effect from the **LCN Implementation Date**, such that:

(a) the defined terms within it, and the effect of those defined terms, shall, in place of their respective meanings immediately before the **LCN Implementation Date**, be deemed to have the meanings they would have had if those agreements had been entered into after the **LCN Implementation Date**.

(b) the right to use the **GB Transmission System** is by reference to "**Local Capacity Nomination**" instead of "**Transmission Entry Capacity**" and the clauses within the **New CUSC Agreement** are amended in the manner provided for by the **Bilateral Agreement Amendments**.

(c) Appendix C to the **New CUSC Agreement** includes reference to the "**Local Capacity**

**Nomination**” in the manner provided for in the **Bilateral Agreement Amendments**;

(d) the **Local Capacity Nomination** is the **Default LCN** or **Agreed LCN** as appropriate;

(e) and the relevant Clauses and Appendices within the **Construction Agreement** are amended in the manner provided for in the **Bilateral Agreement Amendments**.

10.2.7 Each **User** acknowledges and agrees that the provisions of Paragraphs 10.2.3 and 10.2.6 shall apply notwithstanding the provisions in the **Existing CUSC Agreements** as to variation of those agreements.

#### ***Outstanding Applications***

10.2.8 Each **User** shall advise **The Company** as soon as practicable after the **Relevant Date** as to whether, in respect of any **Outstanding Applications**, it wants the **Local Capacity Nomination** to be at a higher or lower MW volume than the **Transmission Entry Capacity** as stated in its application and/or whether it wants the **Construction Works** staged to provide for the **Local Capacity Nomination** before **Transmission Entry Capacity**.

10.2.9 **The Company** shall consider the application in light of any such revisions and make the offer on the same basis as if such **Outstanding Application** had been made after the **LCN Implementation Date** and consistent with the **Application and Offer Amendments and Bilateral Agreement Amendments** and to the extent practicable within the original timescales.

#### ***Outstanding offers***

10.2.10 Each **User** shall advise **The Company** as soon as practicable after the **Relevant Date** as to whether, in respect of any **Outstanding Offers**, it wants the **Local Capacity Nomination** to be at a higher or lower MW volume than the **Transmission Entry Capacity** as stated in its application and/or whether it wants the **Construction Works** staged to provide for the **Local Capacity Nomination** before **Transmission Entry Capacity**.

10.2.11 In any event **The Company** shall as soon as practicable make such amendments to the **Outstanding Offers** as necessary to make such **Outstanding Application** consistent with the form and contents of offers made after the **LCN Implementation Date**.

**Applicants**

10.2.12 Each **Applicant** shall submit a **Connection Application** or **Use of System Application** in a form consistent with the **Application and Offer Amendments**.

10.2.13 **The Company** shall prepare the offer in a form and manner consistent with the **Application and Offer Amendments and Bilateral Agreement Amendments**.

END OF SECTION 10

**SCHEDULE 2 - EXHIBIT 1**

**DATED [ \_\_\_\_\_ ]**

**NATIONAL GRID ELECTRICITY TRANSMISSION PLC (1)**

**and**

**[ \_\_\_\_\_ ] (2)**

---

**THE CONNECTION AND USE OF SYSTEM CODE**

**BILATERAL CONNECTION AGREEMENT**

---

**[FOR A DIRECTLY CONNECTED POWER STATION]**

**[FOR A DIRECTLY CONNECTED DISTRIBUTION SYSTEM]**

**[FOR A NON-EMBEDDED CUSTOMER SITE]**

**[FOR AN INTERCONNECTOR OWNER]**

**At [ \_\_\_\_\_ ]**

**Reference: [ \_\_\_\_\_ ]**

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Frequency Sensitive Relays**

THIS **BILATERAL CONNECTION AGREEMENT** is made on the [ ] day of [ ] 200[ ]

## **BETWEEN**

- (1) **National Grid Electricity Transmission plc** a company registered in England with number 2366977 whose registered office is at 1-3 Strand, London, WC2N 5EH ("**The Company**", which expression shall include its successors and/or permitted assigns); and
- (2) [ ] a company registered in [ ] with number [ ] whose registered office is at [ ] ("**User**", which expression shall include its successors and/or permitted assigns)

## **WHEREAS**

- (A) Pursuant to the **Transmission Licence**, **The Company** is required to prepare a Connection and Use of System Code (**CUSC**) setting out the terms of the arrangements for connection to and use of the **GB Transmission System** and the provision of certain **Balancing Services**.
- (B) The **User** has applied for [Connection to] [and use of] [Modification of its existing **Connection** to [and use of]] the **GB Transmission System** and pursuant to the **Transmission Licence** **The Company** is required to offer terms in this respect.
- (C) The **User** has applied for connection [and use] in the capacity of a [ ] as set out in Paragraph 1.2.4 of the **CUSC**.
- (D) **The Company** and the **User** are parties to the **CUSC Framework Agreement** (being an agreement by which the **CUSC** is made contractually binding between **CUSC Parties**).
- (E) This **Bilateral Connection Agreement** is entered into pursuant to the **CUSC** and shall be read as being governed by it.
- [(F) The parties are also on even date herewith entering into a **Construction Agreement**.]

**NOW IT IS HEREBY AGREED** as follows:

### **1. DEFINITIONS, INTERPRETATION AND CONSTRUCTION**

Unless the subject matter or context otherwise requires or is inconsistent therewith, terms and expressions defined in Section 11 of the **CUSC** have the same meanings, interpretations or constructions in

this **Bilateral Connection Agreement** [and the following terms and expressions shall have the meaning set out below:-

**"Construction Agreement"** the agreement made between the parties of even date herewith for the carrying out of construction works;

**"Charging Date"** as defined in the **Construction Agreement**-

]

[**"Circuit [ ]"** [insert detailed description of circuit(s) affected by the **Design Variation**] (*power station with **Design Variation** and/or **Non Standard Boundary** only*);]

[**"Outage Conditions [ ]"** the unavailability of **Circuit [ ]** as a result of

- (a) a [planned]/[unplanned]/[planned or unplanned] incident occurring directly on **Circuit [ ]**; or
- (b) **Circuit [ ]** requiring to be **Deenergised** for health and safety reasons to allow for the planned or unplanned availability of a circuit in the immediate vicinity of **Circuit [ ]**; (*power station with **Design Variation** and/or **Non Standard Boundary** only*)]

[**"Outage Period"** the period of time during which the **Outage Conditions** and/or reduced circuit capability apply; (*power station with **Design Variation** and/or **Non Standard Boundary** only*)]

[**"Notification of Circuit Restrictions"** means the notification issued by **The Company** to the **User** in accordance with Clause [10.8] of this **Bilateral Connection Agreement**; (*power station with **Design Variation** and/or **Non Standard Boundary** only*)]

[**"Notification of Outage Conditions"** means the notification issued by **The Company** to the **User** in accordance with Clause [10.4] of this **Bilateral Connection Agreement**; (*power station with **Design Variation** and/or **Non Standard Boundary** only*)]

[**"Notification of Restrictions on Availability"** means a **Notification of Outage Conditions** and/or a **Notification of Circuit Restrictions** as

applicable; (*power station with **Design Variation** and/or **Non Standard Boundary** only*)]

[“**Relevant Circuits**” means [**Circuit [ ]**]; (*power station with **Design Variation** and/or **Non Standard Boundary** only*)]

[“**Transmission Related Agreement**” means the agreement of even date entered into between the parties for the provision of and payment for **Balancing Services** in respect of **Bid-Offer Acceptances**; (*power station with **Design Variation** and/or **Non Standard Boundary** only*)]

## 2. COMMENCEMENT

This **Bilateral Connection Agreement** shall commence on [ ].

## 3. THE CONNECTION SITE ~~AND~~ TRANSMISSION CONNECTION ASSETS AND NODE

3.1 The [Connection Site/Node] and **Transmission Connection Assets** to which the Connection rights granted pursuant to this Bilateral Connection Agreement ~~relates is~~ relate are more particularly described in Appendix A.

## 4. CONNECTION CHARGES

The **Connection Charges** payable by the **User** in accordance with the **CUSC** in respect of the **Transmission Connection Assets** set out in Appendix A [(including the **One-Off Charge**)] are set out in Appendix B. These **Connection Charges** shall be payable by the **User** from the ~~[CUSC Implementation Date]~~ [or] [ **Charging Date.**]

## 5. [USE OF SYSTEM (*power station only*)

5.1 The right to use the **GB Transmission System** at the Node up to the User's LCN shall commence on and **Use of System Charges** shall be payable by the **User** from the ~~[CUSC Implementation Date]~~ [or] [ **Charging Date.**]

## 6. CREDIT REQUIREMENTS

The amount to be secured by the **User** from [date] is set out in the **Secured Amount Statement** issued from time to time and as varied from time to time in accordance with Section 2 of the **CUSC**.

## 7. CONNECTION ENTRY CAPACITY, LOCAL CAPACITY NOMINATION AND TRANSMISSION ENTRY CAPACITY

7.1 The **Connection Entry Capacity** in relation to the **Generating Units** and the **[Connection Site/ Node] and the Local Capacity Nomination** and the **Transmission Entry Capacity** in relation to the **[Connection Site / Node]**, are specified in Appendix C.

7.2 Appendix C Part ~~34~~ will set out the **BM Unit Identifiers** of the **BM Units** registered at the **[Connection Site/Node]** under the **Balancing and Settlement Code**. The **User** will provide **The Company** with the information needed to complete details of these **BM Unit Identifiers** as soon as practicable after the date hereof and thereafter in association with any request to modify the **Local Capacity Nomination and/or Transmission Entry Capacity** and **The Company** shall prepare and issue a revised Appendix C incorporating this information. The **User** shall notify **The Company** prior to any alteration in the **BM Unit Identifiers** and **The Company** shall ~~prepared~~ **prepare** and issue a revised Appendix C incorporating this information.

7.3 **The Company** shall monitor the **Users** compliance with its obligation relating to ~~Transmission Entry Capacity~~ **LCN in relation to the [Connection Site/Node]** against the sum of metered volumes of the **BM Units** set out in Part ~~34~~ of Appendix C submitted by the **User** for each **Settlement Period**.

## 8. COMPLIANCE WITH SITE SPECIFIC TECHNICAL CONDITIONS

The site specific technical conditions applying to the **Connection Site** are set out in Appendices F1 to F5 to this **Bilateral Connection Agreement** as modified from time to time in accordance with Paragraph 6.9 of the **CUSC**.

## 9. [ELECTRICAL BOUNDARY (*Non Standard Boundary only*)

The division of ownership of **Plant** and **Apparatus** shall be at [define ownership boundary]. For the avoidance of doubt, nothing in this Clause 9 shall effect any transfer of ownership in any **Plant** or **Apparatus**.]

- 10. [RESTRICTIONS ON AVAILABILITY (power station with Design Variation and/or Non Standard Boundary only)**
- 10.1 [The division of ownership of **Plant** and **Apparatus** in Clause 9 above is contrary to the principles of ownership set out in **CUSC** Paragraph 2.12.]
- 10.2 [In addition the] [The] **User** acknowledges that the connection design which provides for connection to the **GB Transmission System** is a variation to the connection design as provided for in Chapter 2 of the **GB SQSS**.
- 10.3 It is a condition of the **GB SQSS** that any **Design Variation** satisfies the criteria set out in paragraphs 2.15 to 2.18 (inclusive) of the **GB SQSS** and on that basis [and in light of the non standard principles of ownership] the following provisions will apply.
- 10.4 **The Company** shall issue to the **User** a notice that advises the **User** of the occurrence of the **Outage Conditions** and where practicable the expected **Outage Period**. Such notice shall be issued:
- 10.4.1 In the event that the **Notification of Circuit Outage** relates to a **Planned Outage** on the **GB Transmission System**, where practicable, be in accordance with **Grid Code** OC2 requirements; or
- 10.4.2 In the event that the **Notification of Circuit Outage** relates to something other than a **Planned Outage** on the **GB Transmission System** or relates to a **Planned Outage** on the **GB Transmission System** but it is not practicable for such notice to be in accordance with **Grid Code** OC2 requirements, as soon as reasonably practicable and **The Company** and the **User** shall agree as soon as practicable after the date hereof the method of such notification.
- 10.4.3 **The Company** shall promptly notify the **User** when the **Outage Period** will or has ceased.
- 10.5 **The Company** shall be entitled to revise the **Notification of Circuit Outage** given under Clause 10.4 above at any time.
- 10.6 The **User** will acknowledge receipt of such **Notification of Circuit Outage** and where practicable shall revise its **Output Useable** forecast for the affected **BM Unit** accordingly.
- 10.7 Following such **Notification of Circuit Outage** in accordance with Clause 10.4:
- 10.7.1 [(i) In respect of the **Outage Conditions** [ ], the **User** shall (i) ensure that the **Maximum Export Limit** and **Maximum Import Limit** for the **BM Units** relating to the **Power Station** reflects the outage of the **Relevant Circuits** and (ii) operate its **Power Station** to reflect the outage of the **Relevant Circuits** for all **Settlement Periods** or parts thereof falling within the **Outage Period**.]
- 10.7.2 In the event that the **User** does not comply with Clauses [ ] above, **The Company** shall issue **Bid-Offer Acceptances** to the **User** to reduce the

export from and/or import to the affected **BM Unit** so that the effect is as if the **User** had complied with the relevant Clause, and the provisions of the **Transmission Related Agreement** shall apply.

- 10.8 **The Company** shall issue to the **User** a notice that advises the **User** of the occurrence of an event leading to a reduced circuit capability of **Circuit [ ]** and where practicable the expected **Outage Period**. Such notice (including any revision) shall be issued:
- 10.8.1 In the event that the **Notification of Circuit Restriction** relates to a **Planned Outage** on the **GB Transmission System**, where practicable, be in accordance with **Grid Code** OC2 requirements; or
- 10.8.2 In the event that the **Notification of Circuit Restriction** relates to something other than a **Planned Outage** on the **GB Transmission System** or relates to a **Planned Outage** on the **GB Transmission System** but it is not practicable for such notice to be in accordance with **Grid Code** OC2 requirements, such notice shall be given as soon as reasonably practicable and **The Company** and the **User** shall agree as soon as practicable after the date hereof the means of such notification.
- 10.8.4 **The Company** shall promptly notify the **User** when the period of reduced circuit capability will or has ceased.
- 10.9 **The Company** shall be entitled to revise the **Notification of Circuit Restriction** given under Clause 10.8 above at any time.
- 10.10 Following such **Notification of Circuit Restriction** in accordance with Clause 10.8:
- 10.10.1 [(i) In respect of the reduction in capability of **Circuit [ ]**, the **User** shall (i) ensure that the **Maximum Export Limit** and **Maximum Import Limit** for the **BM Units** relating to the **Power Station** reflects the reduction in capability of the **Relevant Circuits** and (ii) operate its **Power Station** to reflect the reduction in capability of the **Relevant Circuits** for all **Settlement Periods** or parts thereof falling within the **Outage Period**.]
- 10.10.2 In the event that the **User** does not comply with Clauses [ ] above, **The Company** shall issue **Bid-Offer Acceptances** to the **User** to reduce the export from and/or import to the affected **BM Unit** so that the effect is as if the **User** had complied with the relevant Clause, and the provisions of the **Transmission Related Agreement** shall apply.
- 10.11 Where the **User** becomes aware or is notified by **The Company** of any breach of Clauses 10.7 or 10.10 above the **User** shall forthwith take all reasonable steps to comply with the provisions of that Clause.
- 10.12 Where the **User** breaches in whole or in part the provisions of Clause 10.7 or Clause 10.10 above, the **User** shall at **The Company's** request explain to **The Company's** satisfaction (acting reasonably) the reason for the breach and demonstrate to **The Company's** satisfaction that appropriate steps have been taken to ensure that such breach will not reoccur. In the event that the **User** does not do this **The Company** may

give notice to the **User** reducing the **Transmission Entry Capacity** of the **Connection Site** and Appendix C of this **Bilateral Connection Agreement** shall be varied accordingly. This **Transmission Entry Capacity** shall apply until such time as the **User** has explained to **The Company's** reasonable satisfaction the reason for the breach and has demonstrated that appropriate steps have been taken to ensure that such breach will not reoccur and Appendix C shall be automatically amended thereafter to reflect the reinstatement of the **Transmission Entry Capacity**.

10.13 If within 3 months of a breach of Clause 10.7 or Clause 10.10 above which entitled **The Company** to take action under Clause 10.12 above, the **User** has still failed to provide the explanation and/or demonstration required by **The Company** under Clause 10.12 then **The Company** may treat such breach as an **Event of Default** for the purposes of Section 5 of the **CUSC** and following such breach may give notice of termination to the **User** whereupon this **Bilateral Connection Agreement** shall terminate and the provisions of **CUSC** Paragraph 5.4.7 shall apply.

10.14 For the avoidance of doubt any **Deenergisation** resulting from the **Outage Conditions** as set out in the relevant **Notification of Restrictions on Availability** constitutes an **Allowed Interruption**.

10.15.1 **The Company** and the **User** shall act in accordance with **Good Industry Practice** to minimise so far as reasonably practicable the occurrence and duration of (i) the **Outage Conditions** and (ii) an **Event** leading to reduced circuit capability of the **Relevant Circuits**. **The Company** and the **User** will, recognising the effect of the **Outage Conditions** and the reduced circuit capability on the **User's** operations, coordinate the **Outage Conditions** and the reduced circuit capability on the **GB Transmission System** (where they occur as a result of a **Planned Outage**) and the **User's Plant and Apparatus** in accordance with **Good Industry Practice** and to the extent practicable. **The Company** and the **User** acknowledge however that even where **Planned Outages** are coordinated and agreed that **The Company** and/or the **User** may need to cancel or change such **Planned Outage**.

10.15.2 **The Company** and the **User** hereby acknowledge and agree that, where reasonably practicable, alternative operating arrangements shall be implemented to minimise the effect of **Outage Conditions** and reduced circuit capability [, including, but not limited to [describe potential arrangements]]. In the event that **The Company** and the **User** implement alternative operating arrangements in respect of an **Outage Condition** and reduced circuit capability, the provisions of Clauses 10.7 and 10.10 shall not apply to the extent that the alternative operating arrangements mitigate the restrictions (whether in whole or in part) that would otherwise apply to the **User** under this Clause 10 for all **Settlement Periods** or parts thereof falling within the **Outage Period** or period of reduced circuit capability.

- 10.17 In the event that the **GB Transmission System** conditions subsequently change such that the conditions required for a design variation under the **GB SQSS** are no longer met then **The Company** shall be entitled to revise Clause 1, this Clause 10 and the **Outage Conditions** as necessary to ensure that such **GB SQSS** conditions continue to be met.]

## 11. TERM

11. Subject to the provisions for earlier termination set out in the **CUSC** this **Bilateral Connection Agreement** shall continue until the **User's Equipment** is **Disconnected** from the **GB Transmission System** at the **Connection Site** in accordance with Section 5 of the **CUSC**.

## 12. VARIATIONS

12.1.1 Subject to Clause ~~10.2, 10.3~~12.2, 12.3 and ~~10.4~~12. below, no variation to this **Bilateral Connection Agreement** shall be effective unless made in writing and signed by or on behalf of both **The Company** and the **User**.

12.2 **The Company** and the **User** shall effect any amendment required to be made to this **Bilateral Connection Agreement** by the **Authority** as a result of a change in the **CUSC** or the **Transmission Licence**, an order or direction made pursuant to the **Act** or a **Licence**, or as a result of settling any of the terms hereof. The **User** hereby authorises and instructs **The Company** to make any such amendment on its behalf and undertakes not to withdraw, qualify or revoke such authority or instruction at any time.

12.3 **The Company** has the right to vary Appendices A and B in accordance with this **Bilateral Connection Agreement** and the **CUSC** including any variation necessary to enable **The Company** to charge in accordance with the **Charging Statements**, or upon any change to the **Charging Statements**.

12.4 Appendices A and B shall be varied automatically to reflect any change to the **Construction Works or Transmission Connection Assets** as provided for in the **Construction Agreement**.

## 13. GENERAL PROVISIONS

Paragraph 6.10 and Paragraphs 6.12 to 6.26 of the **CUSC** are incorporated into this **Bilateral Connection Agreement** *mutatis mutandis*.

**IN WITNESS WHEREOF** the hands of the duly authorised representatives of the parties hereto at the date first above written

SIGNED BY )  
**[name]** )  
for and on behalf of )  
National Grid Electricity Transmission plc )

SIGNED BY )  
**[name]** )  
for and on behalf of )  
**[User]** )

**APPENDIX A**

**TRANSMISSION CONNECTION ASSET/CONNECTION SITE/NODE**

Company: [ ]

Connection Site: [ ]

**Node:** [ ]

Type: [ ]

Part 1 - Pre-Vesting Assets

<u>Allocation</u>	<u>Description</u>	<u>Age</u> (As at [ ])	<u>Year</u>
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Part 2 - Post-Vesting Assets

<u>Allocation</u>	<u>Description</u>	<u>Age</u> (As at [ ])	<u>Year</u>
-------------------	--------------------	---------------------------	-------------

Part 3 - Energy Metering Systems (\*)

<u>Allocation</u>	<u>Description</u>	<u>Age</u> (As at [ ])	<u>Year</u>
-------------------	--------------------	---------------------------	-------------

(\*) FMS, Energy Metering Systems - The Electronics components have a 15 year replacement period. The Non-Electronics components have a 40 year replacement period.

All the above are inclusive of civil engineering works. At double busbar type substations, ownership of main and reserve busbars follows ownership of section switches.

Diagram Reference: [ ]

Appendix Reference: [ ]

Agreement Reference: [ ]

**APPENDIX B**

**CONNECTION CHARGES/PAYMENT**

Company: [ ]

Connection Site: [ ]

Type: [ ]

(1) **Connection Charges**

The Connection Charges set out below may be revised in accordance with the terms of this Bilateral Connection Agreement and/or the Construction Agreement and/or the CUSC and/or the Charging Statements

**Part 1 - Pre-Vesting Assets**

The Connection Charge for those assets extant at 31st March 1990 and specified in Appendix A Part 1 will be at an annual rate for the period [ ] to [ ] of £[ ] where

Rate of Return = [ ]%

Transmission Costs

Part A Site specific maintenance element = £[ ]  
 Part B Other transmission costs element = £[ ]

**Part 2 - Post-Vesting Assets**

The Connection Charge for those assets installed for this agreement after 31st March 1990 and specified in Appendix A Part 2 will be at an annual rate for the period [ ] to [ ] of £[ ] where

Rate of Return = [ ]%

Transmission Costs

Part A Site specific maintenance element = £[ ]

Part B Other transmission costs element = £[ ]

**Part 3 - Energy Metering Systems**

For FMS, Energy Metering Systems assets, installed for this agreement as specified in Appendix A Part 3 the Connection Charge will be at an annual rate for the period from [ ] to [ ] of £[ ]

**Part 4 - Miscellaneous Charges**

The miscellaneous charge shall be £[ ] in respect of the period from [ ] to [ ] payable as an estimated indexed charge in twelve monthly instalments subject to adjustment in accordance with the terms of this Bilateral Connection Agreement and/or the CUSC and/or the Charging Statements

**Part 5 - One-off / Transmission Charges**

The transmission charge shall be £[ ] in respect of the period from [ ] to [ ] payable as an estimated indexed charge in twelve monthly instalments subject to adjustment in accordance with the terms of this Bilateral Connection Agreement and/or the CUSC and/or the Charging Statements

(2) Payment

The Connection Charges for Parts 1 to 6 shall be payable in equal monthly instalments as specified in Paragraph 6.6 of the CUSC

Appendix Reference: [ ]

**APPENDIX C (Power Stations)**

**CONNECTION ENTRY CAPACITY, LOCAL CAPACITY NOMINATION AND TRANSMISSION ENTRY CAPACITY**

Company:

Grid Supply Point/Connection Site/Node:

**Part 1 Connection Entry Capacity**

Connection Entry Capacity (CEC) expressed as an instantaneous MW figure

	CEC(MW)
Power Station	[       ]
Generating Unit	
Genset 1	[       ]
Genset 2	[       ]
Genset 3	[       ]
Genset 4	[       ]

**Part 2 Local Capacity Nomination**

**Local Capacity Nomination (LCN) expressed in average MW figure for the [Power Station] taken over a half hour settlement period.**

**LCN (MW)**  
**Power Station**

**Part 3 Transmission Entry Capacity**

Transmission Entry Capacity (TEC) expressed in average MW taken over a half hour settlement period

TEC(MW)	
Power Station	[       ]

**Part 34 BM Units comprising Power Station**

T_BMU 1	(Associated with Genset 1)
T_BMU 2	(Associated with Genset 2)
T_BMU 3	(Associated with Genset 3)
T_BMU 4	(Associated with Genset 4)
T_BMU SD-1	(Station Demand)
T_BMU AD-1	(Additional Trading Site Demand)

**APPENDIX C (Interconnector Owners)**

**CONNECTION ENTRY CAPACITY AND TRANSMISSION ENTRY CAPACITY**

Company:

Connection Site:

**Part 1 Connection Entry Capacity**

Connection Entry Capacity (CEC) expressed as an instantaneous MW figure

Interconnector CEC(MW)  
[            ]

**Part 2 Local Capacity Nomination**

**Local Capacity Nomination (LCN) expressed in average MW figure for the [Power Station] taken over a half hour settlement period.**

**LCN (MW)**  
**Interconnector**

**Part 3 Transmission Entry Capacity**

**Transmission Entry Capacity (TEC)** expressed in average MW taken over a half hour settlement period

Interconnector [            ]

**Part ~~3~~4 BM Units comprising Interconnector**

All BMU's starting with an identifier [I\_FRA for example]. No need to list all individual BMU's

**Part ~~4~~5 Figure for the Purposes of CUSC Paragraph 9.6**

**APPENDIX FI**

**SITE SPECIFIC TECHNICAL CONDITIONS:**

**AGREED BALANCING SERVICES**

**APPENDIX F2**

**[NOT USED]**

**APPENDIX F3**

**SITE SPECIFIC TECHNICAL CONDITIONS:**

**SPECIAL AUTOMATIC FACILITIES**

**APPENDIX F4**

**SITE SPECIFIC TECHNICAL CONDITIONS:**

**PROTECTION AND CONTROL RELAY SETTINGS**

**FAULT CLEARANCE TIMES**

**APPENDIX F5**

**SITE SPECIFIC TECHNICAL CONDITIONS:**

**LOAD SHEDDING FREQUENCY SENSITIVE RELAYS**

**END OF SCHEDULE 2 - EXHIBIT 1**

**SCHEDULE 2 - EXHIBIT 2**

**DATED [ \_\_\_\_\_ ]**

**NATIONAL GRID ELECTRICITY TRANSMISSION PLC (1)**

**and**

**[ \_\_\_\_\_ ] (2)**

---

**THE CONNECTION AND USE OF SYSTEM CODE  
BILATERAL EMBEDDED GENERATION AGREEMENT**

---

**[USE OF SYSTEM FOR AN EMBEDDED POWER STATION]  
[USE OF SYSTEM FOR A SMALL POWER STATION TRADING PARTY]  
[DISTRIBUTION INTERCONNECTOR OWNER]**

**At [ \_\_\_\_\_ ]**

**Reference: [ \_\_\_\_\_ ]**

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1. **Definitions, Interpretation and Construction**
2. **Commencement**
3. **The Site of Connection to the Distribution System**
4. **Charging Date**
5. **Use of System**
6. **Credit Requirements**
7. **Entry Access Capacity**
8. **Compliance with Site Specific Technical Conditions**
9. **[Restrictions on Availability] (*power stations with Design Variation only*)**
10. **Term**
11. **Variations**
12. **General Provisions**

**Appendix A The Site of Connection and Node**

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**Appendix C Local Capacity Nomination and Transmission Entry Capacity**

**Appendix F1 Site Specific Technical Conditions – Balancing Services**

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**Appendix F4 Site Specific Technical Conditions Protection and Control Relay Settings, Fault Clearance Times**

**Appendix F5 Site Specific Technical Conditions - Other**

THIS **BILATERAL EMBEDDED GENERATION AGREEMENT** is made on the [ ] day of [ ] 200[ ].

## **BETWEEN**

- (1) National Grid Electricity Transmission plc a company registered in England with number 2366977 whose registered office is at 1-3 Strand, London, WC2N 5EH ("**The Company**", which expression shall include its successors and/or permitted assigns); and
- (2) [ ] a company registered in [ ] with number [ ] whose registered office is at [ ] ("**User**", which expression shall include its successors and/or permitted assigns).

## **WHEREAS**

- (A) Pursuant to the **Transmission Licence**, **The Company** is required to prepare a Connection and Use of System Code (**CUSC**) setting out the terms of the arrangements for connection to and use of the **GB Transmission System** and the provision of certain **Balancing Services**.
- (B) The **User** has applied for use of the **GB Transmission System** and pursuant to the **Transmission Licence** **The Company** is required to offer terms for use of system.
- (C) The **User** has applied for use of the **GB Transmission System** in the capacity of [ ] as set out in Paragraph 1.2.4 of the **CUSC**.
- (D) As at the date hereof, **The Company** and the **User** are parties to the **CUSC Framework Agreement** (being an agreement by which the **CUSC** is made contractually binding between the parties). This **Bilateral Embedded Generation Agreement** is entered into pursuant to the **CUSC** and shall be read as being governed by it.

**NOW IT IS HEREBY AGREED** as follows:

### **1. DEFINITIONS, INTERPRETATION AND CONSTRUCTION**

Unless the subject matter or context otherwise requires or is inconsistent therewith, terms and expressions defined in Section [911](#) of the **CUSC** have the same meanings, interpretations or constructions in this **Bilateral Embedded Generation Agreement**. [and the following terms and expressions shall have the meaning set out below:-

["**Circuit [ ]**" [insert detailed description of circuit(s) affected by the design variation] (*power station with **Design Variation** only*);]

["**Outage Conditions [ ]**" the unavailability of **Circuit [ ]** as a result of

(a) a [planned]/ [unplanned]/ [planned or unplanned] incident occurring directly on **Circuit [ ]**; or

(b) **Circuit [ ]** requiring to be **Deenergised** for health and safety reasons to allow for the planned or unplanned availability of a circuit in the immediate vicinity of **Circuit [ ]** (*power station with **Design Variation** only*);]

[“**Outage Period**” the period of time during which the **Outage Conditions** and/or reduced circuit capability apply (*power station with **Design Variation** only*).]]

[“**Notification of Circuit Restrictions**” means the notification issued by **The Company** to the **User** in accordance with Clause [9.2] of this **Bilateral Embedded Generation Agreement**; (*power station with **Design Variation** only*)]

[“**Notification of Outage Conditions**” means the notification issued by **The Company** to the **User** in accordance with Clause [9.4] of this **Bilateral Embedded Generation Agreement**; (*power station with **Design Variation** only*)]

[“**Notification of Restrictions on Availability**” means a **Notification of Outage Conditions** and/or a **Notification of Circuit Restrictions** as applicable; (*power station with **Design Variation** only*)]

[“**Relevant Circuits**” means [**Circuit [ ]**]; (*power station with **Design Variation** only*)]

[“**Transmission Related Agreement**” means the agreement of even date entered into between the parties for the provision of and payment for **Balancing Services** in respect of **Bid-Offer Acceptances**; (*power station with **Design Variation** only*)]

## 2. COMMENCEMENT

This **Bilateral Embedded Generation Agreement** shall commence on [ ].

## 3. THE SITE OF CONNECTION TO THE DISTRIBUTION SYSTEM **AND NODES**

The [site of Connection/**Node**] of the **Embedded Power Station [Distribution Interconnector]** to the **Distribution System** to which **the Use of System rights granted pursuant to** this **Bilateral Embedded Generation Agreement** relates is more particularly described in Appendix A.

[The sites of **Connection** of the **Embedded Power Stations [Distribution Interconnector]** to the relevant **Distribution Systems** to which this **Bilateral Embedded Generation Agreement** relates are more particularly described in Appendix A.]

#### 4. CHARGING DATE

The date from which **Use of System Charges** shall be payable by the **User** (including **One-Off Charges** where applicable) shall be **the Charging Date** ].

#### 5. USE OF SYSTEM

The right to use the **GB Transmission System at the Node up to the User's LCN** shall commence on and **Use of System Charges** shall be payable by the **User** from the date hereof.

#### 6. CREDIT REQUIREMENTS

[The amount to be secured by the **User** from [date] is set out in the **Secured Amount Statement** issued from time to time and as varied from time to time in accordance with Section 3 of the **CUSC**.]

#### 7. TRANSMISSION ENTRY CAPACITY

7.1 The **Local Capacity Nomination and Transmission Entry Capacity** of ~~at~~ each ~~of the~~ site[s] of **Connection Node** is [are] and the[ir] value[s] for the purposes of Paragraph 3.2 of the **CUSC** are specified in Appendix C.

7.2 Appendix C Part 3 will set out the **BM Unit Identifiers** of the **BM Units** registered at the **Connection Site** under the **Balancing and Settlement Code**. The **User** will provide **The Company** with the information needed to complete details of these **BM Unit Identifiers** as soon as practicable after the date hereof and thereafter in association with any request to modify the **Local Capacity Nomination and/or Transmission Entry Capacity** and **The Company** shall prepare and issue a revised Appendix C incorporating this information. The **User** shall notify **The Company** prior to any alteration in the **BM Unit Identifiers** and **The Company** shall prepare and issue a revised Appendix C incorporating this information.

7.3 **The Company** shall monitor the **Users** compliance with its obligation relating to ~~Transmission Entry Capacity~~ **Local Capacity Nomination in relation to the [site of Connection]** against the sum of metered volumes of

the **BM Units** set out in Part 3 of Appendix C and submitted by the **User** for each **Settlement Period**.

## 8. COMPLIANCE WITH SITE SPECIFIC TECHNICAL CONDITIONS

The site specific technical conditions applying to [each of] the site[s] of **Connection** are set out in Appendices F1 to F5 to this **Bilateral Embedded Generation Agreement** as modified from time to time in accordance with Paragraph 6.9 of the **CUSC**.

## 9. [RESTRICTIONS ON AVAILABILITY (*power stations with Design Variation only*)

9.1 The design of the connection of the **Distribution System** (to which the **User** is to connect) to the **GB Transmission System** is when studied under Chapter 2 of the **GB SQSS** a variation to the connection design as provided for in that chapter. It is a condition of the **GB SQSS** that any variation to the connection design satisfies the criteria set out in paragraphs 2.15 to 2.18 (inclusive) of the **GB SQSS** and on that basis the following provisions shall apply.

9.2 **The Company** shall issue to the **User** a notice that advises the **User** of the occurrence of the **Outage Conditions** and where practicable the expected **Outage Period**. Such notice shall be issued:

9.2.1 In the event that the **Notification of Circuit Outage** relates to a **Planned Outage** on the **GB Transmission System**, where practicable, in accordance with **Grid Code** OC2 requirements; or

9.2.2 In the event that the **Notification of Circuit Outage** relates to something other than a **Planned Outage** on the **GB Transmission System** or it relates to a **Planned Outage** on the **GB Transmission System** but it is not practicable for such notice to be in accordance with **Grid Code** OC2 requirements, as soon as reasonably practicable and **The Company** and the **User** shall agree as soon as practicable after the date hereof the method of such notification.

9.2.4 **The Company** shall promptly notify the **User** when the **Outage Period** will or has ceased.

9.3 **The Company** shall be entitled to revise the **Notification of Circuit Outage** given under Clause 9.2 above at any time.

9.4 The **User** will acknowledge receipt of such **Notification of Circuit Outage** and where practicable shall revise its **Output Useable** forecast for the affected **BM Unit** accordingly.

- 9.5 Following such **Notification of Circuit Outage** in accordance with Clause 9.2:
- 9.5.1 [(i) In respect of the **Outage Conditions [ ]**, the **User** shall (i) ensure that the **Maximum Export Limit** and **Maximum Import Limit** for the **BM Units** relating to the **Power Station** reflects the outage of the **Relevant Circuits** and (ii) operate its **Power Station** to reflect the outage of the **Relevant Circuits** for all **Settlement Periods** or parts thereof falling within the **Outage Period**.]
- 9.5.2 In the event that the **User** does not comply with Clauses [ ] above, **The Company** shall issue **Bid-Offer Acceptances** to the **User** to reduce the export from and/or import to the affected **BM Unit** so that the effect is as if the **User** had complied with the relevant Clause, and the provisions of the **Transmission Related Agreement** shall apply.
- 9.6 **The Company** shall issue to the **User** a notice that advises the **User** of the occurrence of an event leading to a reduced circuit capability of **Circuit [ ]** and where practicable the expected **Outage Period**. Such notice (including any revision) shall be issued:
- 9.6.1 In the event that the **Notification of Circuit Restriction** relates to a **Planned Outage** on the **GB Transmission System**, where practicable, in accordance with **Grid Code** OC2 requirements; or
- 9.6.2 In the event that the **Notification of Circuit Restriction** relates to something other than a **Planned Outage** on the **GB Transmission System** or relates to a **Planned Outage** on the **GB Transmission System** but it is not practicable for such notice to be in accordance with **Grid Code** OC2 requirements, as soon as reasonably practicable and **The Company** and the **User** shall agree as soon as practicable after the date hereof the means of such notification.
- 9.6.3 **The Company** shall promptly notify the **User** when the period of reduced circuit capability will or has ceased.
- 9.7 **The Company** shall be entitled to revise the **Notification of Circuit Restriction** given under Clause 9.6 above at any time.
- 9.8 Following such **Notification of Circuit Restriction** in accordance with Clause 9.6:
- 9.8.1 [(i) In respect of the reduction in capability of **Circuit [ ]**, the **User** shall (i) ensure that the **Maximum Export Limit** and **Maximum Import Limit** for the **BM Units** relating to the **Power Station** reflects the reduction in capability of the **Relevant Circuits** and (ii) operate its **Power Station** to reflect the reduction in capability of the **Relevant Circuits** for all **Settlement Periods** or parts thereof falling within the **Outage Period**.]

- 9.8.2 In the event that the **User** does not comply with Clauses [ ] above, **The Company** shall issue **Bid-Offer Acceptances** to the **User** to reduce the export from and/or import to the affected **BM Unit** so that the effect is as if the **User** had complied with the relevant Clause, and the provisions of the **Transmission Related Agreement** shall apply.
- 9.9 Where the **User** becomes aware or is notified by **The Company** of any breach of Clause 9.5 or Clause 9.8 above the **User** shall forthwith take all reasonable steps to comply with the provisions of that Clause.
- 9.10 Where the **User** breaches in whole or in part the provisions of Clause 9.5 or Clause 9.8 above, the **User** shall at **The Company's** request explain to **The Company's** satisfaction (acting reasonably) the reason for the breach and demonstrate to **The Company's** satisfaction that appropriate steps have been taken to ensure that such breach will not reoccur. In the event that the **User** does not do this **The Company** may give notice to the **User** reducing the **Transmission Entry Capacity** of the **Connection Site** and Appendix C of this **Bilateral Embedded Generation Agreement** shall be varied accordingly. This **Transmission Entry Capacity** shall apply until such time as the **User** has explained to **The Company's** reasonable satisfaction the reason for the breach and has demonstrated that appropriate steps have been taken to ensure that such breach will not reoccur and Appendix C shall be automatically amended thereafter to reflect the reinstatement of the **Transmission Entry Capacity**.
- 9.11 If within 3 months of a breach of Clause 9.5 or Clause 9.8 above which entitled **The Company** to take action under Clause 9.10 above, the **User** has still failed to provide the explanation and/or demonstration required by **The Company** under Clause 9.10 then **The Company** may treat such breach as an **Event of Default** for the purposes of Section 5 of the **CUSC** and following such breach may give notice of termination to the **User** whereupon this **Bilateral Embedded Generation Agreement** shall terminate and the provisions of **CUSC** Paragraph 5.4.7 shall apply.
- 9.12 For the avoidance of doubt any **Deenergisation** resulting from the **Outage Conditions** as set out in the relevant **Notification of Restrictions on Availability** constitutes an **Allowed Interruption**.
- 9.13.1 **The Company** and the **User** shall act in accordance with **Good Industry Practice** to minimise so far as reasonably practicable the occurrence and duration of (i) the **Outage Conditions** and (ii) an **Event leading to reduced circuit capability of the relevant circuits**. **The Company** and the **User** will, recognising the effect of the **Outage Conditions** and the reduced circuit capability on the **User's** operations, coordinate the **Outage Conditions** and the reduced circuit

capability on the **GB Transmission System** (where they occur as a result of a Planned Outage) and the **User's Plant and Apparatus** in accordance with **Good Industry Practice** and to the extent practicable. **Company** and the **User** acknowledge however that even where **Planned Outages** are coordinated and agreed that **The Company** and/or the **User** may need to cancel or change such **Planned Outage**.

9.13.2 **The Company** and the **User** hereby acknowledge and agree that, where practicable, alternative operating arrangements shall be implemented to minimise the effect of **Outage Conditions** [, including, but not limited to [describe potential arrangements]]. In the event that **The Company** and the **User** implement alternative operating arrangements in respect of an **Outage Condition**, the provisions of Clause 9.5 and Clause 9.8 shall not apply to the extent that the alternative operating arrangements mitigate the restrictions (whether in whole or in part) that would otherwise apply to the **User** under this Clause 9 for all **Settlement Periods** or parts thereof falling within the **Outage Period**.

9.14 In the event that the **GB Transmission System** conditions subsequently change such that the conditions required for a design variation under the **GB SQSS** are no longer met then **The Company** shall be entitled to revise Clause 1, this Clause 9 and the **Outage Conditions** as necessary to ensure that such **GB SQSS** conditions continue to be met.]

## 10. TERM

Subject to the provisions for earlier termination set out in the **CUSC**, this **Bilateral Embedded Generation Agreement** shall continue until all of the **User's** equipment [or **Equipment** for which the **User** is responsible (as defined in Section K of the **Balancing and Settlement Code**] is **Disconnected** from the relevant **Distribution System** at the site[s] of **Connection** as provided in Section 5 of the **CUSC**.

## 11. VARIATIONS

11.1 Subject to 11.2 and 11.3, no variation to this **Bilateral Embedded Generation Agreement** shall be effective unless made in writing and signed by or on behalf of both **The Company** and the **User**.

11.2 **The Company** and the **User** shall effect any amendment required to be made to this **Bilateral Embedded Generation Agreement** by the **Authority** as a result of a change in the **CUSC** or the **Transmission Licence**, an order or direction made pursuant to the **Act** or a **Licence**, or as a result of settling any of the terms hereof. The **User** hereby authorises and instructs **The Company** to make any such amendment

on its behalf and undertakes not to withdraw, qualify or revoke such authority or instruction at any time.

- 11.3 **The Company** has the right to vary Appendix B in accordance with this **Bilateral Embedded Generation Agreement** and the **CUSC** including any variation necessary to enable **The Company** to charge in accordance with the **Charging Statements** or upon any change to the **Charging Statements**.

## 12. GENERAL PROVISIONS

Paragraph 6.10 and Paragraphs 6.12 to 6.26 of the **CUSC** are incorporated into this **Bilateral Embedded Generation Agreement** *mutatis mutandis*.

**IN WITNESS WHEREOF** the hands of the duly authorised representatives of the parties hereto at the date first above written

SIGNED BY )  
**[name]** )  
for and on behalf of )  
National Grid Electricity Transmission plc )

SIGNED BY )  
**[name]** )  
for and on behalf of )  
[User] )

**APPENDIX A**

**THE SITE OF CONNECTION / NODE**

**1. SITE[s] OF CONNECTION**

**Company**

**:**

**Site[s] of Connection :**

**Node :**

**Owner[s] / Operator[s] of Distribution System:**

**APPENDIX B**  
**CHARGES AND PAYMENT**

Company :

Site of Connection:

1. PART 1: ONE-OFF CHARGES
  
2. PART 2: MISCELLANEOUS CHARGE(S)

**APPENDIX C**

**LOCAL CAPACITY NOMINATION AND TRANSMISSION ENTRY CAPACITY**

**Part 1 Local Capacity Nomination (LCN)**

**Local Capacity Nomination (LCN) expressed in average MW figure for the [Power Station] taken over a half hour settlement period.**

**LCN (MW)**  
**Power Station**

**Part 2 Transmission Entry Capacity**

Transmission Entry Capacity (TEC) expressed in average MW taken over a half hour settlement period

	TEC(MW)
Power Station	[       ]

**Part 23 BM Units comprising Power Station**

E_BMU 1	(Associated with Genset 1)
E_BMU 2	(Associated with Genset 2)
E_BMU 3	(Associated with Genset 3)
E_BMU 4	(Associated with Genset 4)
E_BMU SD-1	(Station Demand) if applicable
E_BMU AD-1	(Additional Trading Site Demand) if applicable

**APPENDIX F1**  
**SITE SPECIFIC TECHNICAL CONDITIONS:**  
**AGREED BALANCING SERVICES**

**APPENDIX F2**

**[NOT USED]**

**APPENDIX F2**

**SITE SPECIFIC TECHNICAL CONDITIONS:**

**SPECIAL AUTOMATIC FACILITIES**

**APPENDIX F3**

**SITE SPECIFIC TECHNICAL CONDITIONS: PROTECTION**

**AND CONTROL RELAY SETTINGS**

**FAULT CLEARANCE TIMES**

**APPENDIX F4**

**SITE SPECIFIC TECHNICAL CONDITIONS:**

**OTHER**

**END OF SCHEDULE 2 - EXHIBIT 2**

## Sec 11 Proposed New and Amended Defined Terms

<p><b>“2 Day Ahead SO Release”:</b></p>	<p>a one day access product to be applied for by a <b>User</b> two days in advance of the <b>SO Release Day</b> in accordance with the procedure in Paragraph 7 of Appendix 3 to Section 3 of the <b>CUSC</b>;</p>
<p><b>“2 Day Ahead SO Release Acceptance”</b></p>	<p>the acceptance issued by <b>The Company</b> to a <b>User</b> in accordance with Paragraph 7 of Appendix 3 to Section 3 of the <b>CUSC</b>;</p>
<p><b>“2 Day Ahead SO Release Auction”:</b></p>	<p>the process whereby a <b>User</b> may apply for <b>2 Day Ahead SO Release</b> pursuant to Paragraph 7 of Appendix 3 to Section 3 of the <b>CUSC</b>;</p>
<p><b>“2 Day Ahead SO Release Bid form”</b></p>	<p>the form by which to request <b>2 Day Ahead SO Release</b> as set out in the <b>SO ST Release Methodology</b>;</p>
<p><b>“2 Day Ahead SO Release Charge”:</b></p>	<p>the charge payable by a <b>User</b> pursuant to Paragraph 7.2.5(a) of Appendix 3 to Section 3 of the <b>CUSC</b> as calculated in accordance with the <b>SO ST Release Methodology</b> and the <b>Statement of the Use of System Charging Methodology</b>;</p>
<p><b>“2 Day SO Release Period”:</b></p>	<p>the <b>SO Release Day</b> for which <b>The Company</b> has accepted a bid for <b>2 Day Ahead SO Release</b>;</p>
<p><b>“5 Week Ahead SO Release”:</b></p>	<p>a one week access product to be applied for by a <b>User</b> 5 weeks in advance of the <b>5 Week Ahead SO Release Access Period</b> in accordance with the procedure in Paragraph 8 of Appendix 3 to Section 3 of the <b>CUSC</b>;</p>
<p><b>“5 Week Ahead SO Release Acceptance”</b></p>	<p>the acceptance issued by <b>The Company</b> to a <b>User</b> in accordance with Paragraph 8 of Appendix 3 to Section 3 of the <b>CUSC</b> in respect of a specified <b>5 Week Ahead SO Release Access Period</b>;</p>
<p><b>“5 Week Ahead SO Release Period”:</b></p>	<p>the week for which <b>The Company</b> has accepted a bid for <b>5 Week Ahead SO Release</b>, such period starting at 05.00 am on the Wednesday of Week 6 and finishing at 04.59 am on the Wednesday of Week 7;</p>
<p><b>“5 Week Ahead SO Release Auction”:</b></p>	<p>the process whereby a <b>User</b> may apply for <b>5 Week Ahead SO Release</b> pursuant to Paragraph 8 of Appendix 3 to Section 3 of the <b>CUSC</b>;</p>
<p><b>“5 Week Ahead SO Release Bid form”</b></p>	<p>the form by which to request <b>5 Week Ahead SO Release</b> as set out in the <b>SO ST Release Methodology</b>;</p>
<p><b>“5 Week Ahead SO Release Bid Form”:</b></p>	<p>the form by which to request <b>5 Week Ahead SO Release</b> as set out in the <b>SO ST Release Methodology</b>;</p>
<p><b>“5 Week Ahead SO Release Charge”:</b></p>	<p>the charge payable by a <b>User</b> pursuant to Paragraph 8.2.5(a) of Appendix 3 to Section 3 of the <b>CUSC</b> as calculated in accordance with the <b>SO ST Release Methodology</b> and the <b>Statement of the Use of System Charging Methodology</b>;</p>
<p><b>“Access Capacity”:</b></p>	<p>the sum of a <b>User’s TEC</b> and <b>Short Term Access Products</b> (if any);</p>

<b>“Actual Overrun Amount”</b>	As defined in Section 3 Appendix 3 Paragraph 9.2.5.1;
<b>“Buy Back Price”</b>	the price for such as set out in a <b>User’s 2 Day Ahead SO Release Bid Form</b> or <b>5 Week Ahead SO Release Bid Form</b> ;
<b>“CLDTEC Access Period”</b> :	the weeks for which a <b>User</b> is offered <b>CLDTEC</b> ;
<b>“CLDTEC Charge”</b>	the charge payable by a <b>User</b> pursuant to Paragraph 5.5.2 of Appendix 3 to Section 3 of the <b>CUSC</b> as calculated in accordance with the <b>SO ST Release Methodology</b> and the <b>Statement of the Use of System Charging Methodology</b> ;
<b>“CLDTEC Offer”</b> :	an offer made by <b>The Company</b> to a <b>User</b> in accordance with Paragraph 5 of Appendix 3 to Section 3 of the <b>CUSC</b> for <b>Use of System</b> by utilising <b>CLDTEC</b> for a specified <b>CLDTEC Period</b> ;
<b>“CLDTEC Period”</b> :	the period in consecutive whole weeks for which a <b>User</b> has been offered a <b>CLDTEC Offer</b> ;
<b>“CLDTEC Profile”</b> :	a weekly profile in MW of <b>The Company’s</b> assessment of the MW capacity that is available to a <b>User</b> for the <b>CLDTEC Period</b> (not exceeding the maximum level in the <b>CLDTEC Request</b> );
<b>“CLDTEC Request”</b> :	is an application made by a <b>User</b> for a <b>CLDTEC Offer</b> using a <b>CLDTEC Request Form</b> ;
<b>“CLDTEC Request Fee”</b>	the non refundable fee to be paid by the <b>User</b> to <b>The Company</b> as detailed in the <b>Charging Statements</b> ;
<b>“CLDTEC Request Form”</b> :	the form by which to request <b>CLDTEC</b> as set out in the <b>SO ST Release Methodology</b> ;
<b>“Close of Bids”</b> :	means in relation to :  (a) a <b>2 Day Ahead SO Release Bid Form</b> , 16.00 on the day that is 2 days ahead of the start of the <b>2 Day Ahead SO Release Access Period</b> (D-2); and  (b) a <b>5 Week Ahead SO Release Bid Form</b> , 16.00 hours on the Wednesday of the week that is 5 weeks ahead of the start of the <b>5 Week Ahead SO Release Access Period</b> (Week 1) and where <b>Public Holiday</b> , 16.00 hours on the first <b>Business Day</b> following such Wednesday.
<b>“Commercial Limited Duration TEC” or “CLDTEC”</b> :	a weekly-based (Monday to Monday) access product offering a <b>User</b> a minimum of one week access to the <b>GB Transmission System</b> in accordance with Paragraph 5 of Appendix 3 to Section 3 of the <b>CUSC</b> ;
<b>“Effective LCN Decrease Date”</b> :	the date as defined in Paragraph 1.4.3 of Appendix 3 of Section 3 of the <b>CUSC</b> ;
<b>Donating Sharing User</b>	<b>Donating Sharing User</b>
<b>“Entry Overrun</b>	the element of <b>Use of System Charges</b> payable by a <b>User</b> in

<b>Charges”:</b>	respect of <b>Entry Overrun</b> .
<b>“Entry Overrun”:</b>	means the ability of a <b>User</b> to export power on to the <b>GB Transmission System</b> above its <b>Access Capacity</b> up to its <b>LCN</b> in accordance with Paragraph 9 of Appendix 3 to Section 3 of the <b>CUSC</b> .
<b>“Final Entry Overrun Reconciliation Statement”</b>	as defined in Section 3 Appendix 3 Paragraph 9.2.5.1;
<b>“Generation Circuit”</b>	as defined in the <b>GBSQSS</b> ;
<b>“Initial Entry Overrun Reconciliation Statement”</b>	as defined in Section 3 Appendix 3 Paragraph 9.2.5.1;
<b>“LCN Decrease Notice Period”:</b>	the notice period required pursuant to Paragraph 1.4.1 of Appendix 3 to Section 3 of the <b>CUSC</b> ;
<b>“LCN/TEC Register”</b>	The register set up by The Company pursuant to Section 3 Appendix 3 Paragraph 2.4;
<b>“LCN Transmission Reinforcement Works”:</b>	those <b>Transmission Reinforcement Works</b> that are required from the <b>Node</b> to connect in to a <b>MITs Substation</b> , inclusive of substation works, a substation with more than 4 <b>Transmission Circuits</b> connecting at the substation.
<b>“Local Capacity Nomination” or “LCN”:</b>	the station capacity (in whole MW) being the maximum figure at which a <b>User</b> can export power onto the <b>GB Transmission System</b> at a <b>Node</b> , and which, in relation to a <b>User</b> acting in the category of a <b>Power Station</b> directly connected to the <b>GB Transmission System</b> , must never exceed its <b>Connection Entry Capacity</b> ;
<b>“MITs Substation</b>	means a substation at a <b>Grid Supply Point</b> with 2 or more <b>Transmission Circuits</b> connecting at the substation.
<b>“Node”:</b>	Shall mean: (a) in the case of a <b>User</b> acting in the category of a <b>Power Station</b> directly connected to the <b>GB Transmission System</b> , the <b>Connection Site</b> specified in a <b>User’s Bilateral Connection Agreement</b> ; and (b) in the case of a <b>User</b> acting in the category of an <b>Embedded Power Station</b> , the <b>Grid Supply Point</b> that can be reasonably associated with the <b>Embedded</b> generation site specified in a <b>User’s Bilateral Embedded Generation Agreement</b> .
<b>“Notional Overrun Amount”</b>	s defined in Section 3 Appendix 3 Paragraph 9.2.5.1;
<b>“Public Holiday”</b>	Any day designated as such pursuant to the 1971 Banking and Financial Dealings Act.
<b>Receiving Sharing User</b>	the <b>User</b> proposing to share with the <b>Donating Sharing User</b>
<b>“Shared Access Capacity Notification”:</b>	the notification pursuant to Paragraph 11.5 of Appendix 3 to Section 3 of the <b>CUSC</b> by the <b>Sharing Users</b> to <b>The Company</b> to accept the <b>Sharing Exchange Rate Offer</b> ;
<b>“Shared Access Capacity Rate Request</b>	the non refundable fee to be paid by a <b>User</b> to <b>The Company</b> as when requesting <b>The Company</b> to carry out a <b>Shared Access</b>

<b>Fee”:</b>	<b>Capacity Rate Request</b> pursuant to Paragraph 11 of Appendix 3 to Section 3 of the <b>CUSC</b> and specified in the <b>Charging Statements</b> ;
<b>“Shared Access Capacity Rate Request”:</b>	a joint request from the <b>Sharing User’s</b> to calculate the <b>Shared Access Capacity Rate</b> and made by use of the <b>Shared Access Capacity Rate Request Form</b> ;
<b>“Shared Access Capacity Rate”:</b>	the factor used to calculate the MW from the <b>Donating Sharing User</b> to the <b>Receiving Sharing User</b> ;
<b>“Sharing Period”</b>	the period in consecutive whole weeks for which a <b>User</b> has been offered a <b>Sharing Exchange Rate Offer</b> ;
<b>“Sharing Power Stations”</b>	those <b>Power Stations</b> identified in a <b>Shared Access Capacity Rate Request</b> and the subject of any resulting <b>Shared Access Capacity Notification</b> ;
<b>“Sharing Users”</b>	the <b>Donating Sharing User</b> and <b>Receiving Sharing User</b> ;
<b>“Short Term Access Products”:</b>	any of the following products: the <b>2 Day Ahead SO Release</b> , the <b>5 Week Ahead SO Release</b> , <b>CLDTEC</b> , <b>STTEC</b> , <b>LDTEC</b> and <b>Temporary TEC</b> ;
<b>“Short Term Access Products Charge”:</b>	the element of <b>Use of System Charges</b> payable by a <b>User</b> arising out of a <b>User’s Use of System</b> by means of a <b>Short Term Access Product</b> ;
<b>“SO Release Day”</b>	the day starting at 05.00 am on day D and finishing at 04.59 am;
<b>“SO Release Transmission Related Agreement”</b>	the <b>Transmission Related Agreement</b> that <b>The Company</b> and a <b>User</b> must have entered into prior to such <b>User</b> including a <b>Buy Back Price</b> in a <b>2 Day Ahead SO Release Bid Form</b> or a <b>5 Week Ahead SO Release Bid Form</b> ;
<b>“SO ST Release Methodology”:</b>	the methodology to be prepared by <b>The Company</b> in accordance with Paragraph 6 of Appendix 3 to Section 3 of the <b>CUSC</b> with respect to <b>5 Week Ahead SO Release Auctions</b> and <b>2 Day Ahead SO Release Auctions</b> and <b>CLDTEC</b> ;
<b>“Temporary TEC”:</b>	<b>Temporary Donated TEC</b> less <b>Temporary Received TEC</b> ;
<b>“Transmission Circuit”</b>	as defined in the <b>GBSQSS</b> ;

## Proposed Amendments to Existing Defined Terms

"TEC Register"	shall be deleted
"Operational Notification":	the notice of that name given to the User by The Company under Paragraphs 1.5.5 or 3.2.6 7 of the CUSC or under a Construction Agreement;
Various – "Exchange rate Requests", "LDTEC", "STECC", "TEC Increase Request" and "Temporary TEC Exchanges"	the references to Section 3 and Paragraphs within Section 3 where used in the definitions of and Exhibits relating to these shall be replaced with the corresponding references in Section 3 Appendix 3.
"Use of System Payment Date":	the date for payment of Use of System Charges, Short Term Access Products Charges and Entry Overrun Charges;

## **CUSC - EXHIBIT B**

### **THE CONNECTION AND USE OF SYSTEM CODE CONNECTION APPLICATION**

#### **DIRECTLY CONNECTED POWER STATION NON EMBEDDED CUSTOMER DISTRIBUTION SYSTEM DIRECTLY CONNECTED TO THE GB TRANSMISSION SYSTEM**

**PLEASE STUDY THE FOLLOWING NOTES BEFORE COMPLETING AND SIGNING THE APPLICATION FORM.**

Please note that certain terms used in the application form are defined in the Interpretation and Definitions (contained in Section 11 to the CUSC) and when this occurs the expressions have capital letters at the beginning of each word and are in bold. If the **Applicant** has any queries regarding this application or any related matters then the **Applicant** is recommended to contact **The Company**<sup>1</sup> where our staff will be pleased to help.

1. **The Company** (National Grid Electricity Transmission plc) requires the information requested in this application form for the purpose of preparing an **Offer** (the “**Offer**”) to enter into an agreement for connection to and in the case of a directly connected power station, use of the **GB Transmission System**. It is essential that the **Applicant** supplies all information requested in the application form and that every effort should be made to ensure that such information is accurate.
2. Where **The Company** considers that any information provided by the **Applicant** is incomplete or unclear, or further information is required, the **Applicant** will be requested to provide further information or clarification. The provision/clarification of this information may impact on **The Company’s** ability to commence preparation of an **Offer**.
3. Should there be any change in the information provided by the **Applicant** then the **Applicant** should immediately inform **The Company** of such a change. Where this is a change in the information provided for Sections B to D then the **Applicant** should contact **The Company** to see if such a change can be accommodated as it is unlikely that material changes could be accommodated. If **The Company** cannot accommodate such a change bearing in mind the timescales within which the **Offer** must be made then the application will be processed on the original information although it is open to the **Applicant** to withdraw the application.
4. **The Company** shall charge the **Applicant**, and the **Applicant** shall pay to **The Company**, **The Company’s** Engineering Charges in relation to the application. A fee will be charged by **The Company** in accordance with the **Charging Statements**. No application will be considered until such payment has been received.
5. The effective date upon which the application is made shall be the later of the date when **The Company** has received the application fee pursuant to paragraph 4 above or the date when **The Company** is reasonably satisfied that the **Applicant** has completed Sections A-D. **The Company** shall notify the **Applicant** of such date.

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<sup>1</sup> Customer Services, National Grid Electricity Transmission plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA (Telephone No. 01926 654634)

6. **The Company** will make the **Offer** in accordance with the terms of Paragraphs 2.13, 6.9 (Modifications) and Paragraph 6.10 (New Connection Sites) of the **CUSC** and the **Transmission Licence**.
7. **The Company** will make the **Offer** as soon as is reasonably practicable and, in any event, within three (3) months of the effective date of the application or such later period as the **Authority** may agree. The **Offer** may, where it is necessary to carry out additional extensive system studies to evaluate more fully the impact of the proposed development, indicate the areas that require more detailed analysis. Before such additional studies are required, the **Applicant** shall indicate whether it wishes **The Company** to undertake the work necessary to proceed to make a revised **Offer** within the three (3) month period or, where relevant the timescale consented to by the **Authority**. To enable **The Company** to carry out any of the above mentioned necessary detailed system studies the **Applicant** may, at the request of **The Company**, be required to provide some or all of the **Detailed Planning Data** listed in Part 2 of the Appendix to the **Planning Code** which is part of the **Grid Code**.
8. In the course of processing the application it may be necessary for **The Company** to consult the appropriate **Public Distribution System Operator(s)** on matters of technical compatibility of the **GB Transmission System** with their **Distribution System(s)** or to consult the **Relevant Transmission Licensees** to establish the works required on the **GB Transmission System**. On grounds of commercial confidentiality **The Company** shall need authorisation for the release to the **Public Distribution System Operator(s)** or **Relevant Transmission Licensees** of certain information contained in the application. Any costs incurred by **The Company** in consulting the **Public Distribution System Operator(s)** or **Relevant Transmission Licensees** would be included in **The Company Charges** for the application. If it is found by the **Public Distribution System Operator(s)** that any work is required on their **Distribution System(s)**, then it will be for the **Public Distribution System Operator(s)** and the **Applicant** to reach agreement in accordance with [\[Paragraph 6.10.3 of the CUSC.\]](#)
9. In accordance with [\[Paragraph 6.30.3 of CUSC\]](#) **The Company** will need to disclose details of **Bilateral Agreements** entered into and shall need authorisation from the **Applicant** in respect of this.
10. If the **Applicant** is not already a **CUSC Party** the **Applicant** will be required as part of this application form to undertake that he will comply with the provisions of the **Grid Code** for the time being in force. Copies of the **Grid Code** and the **CUSC** are available on **The Company's Website**<sup>2</sup> and the **Applicant** is advised to study them carefully. **Data** submitted pursuant to this application shall be deemed submitted pursuant to the **Grid Code**.
11. **The Company's Offer** will be based upon its standard form terms of **Connection Offer** and the **Charging Statements** issued by **The Company** under Standard Conditions C4 and C6 of the **Transmission Licence**. The **Applicant** should bear in mind **The Company's** standard form terms of **Offer** when making this application.

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<sup>2</sup> [www.nationalgrid.com/uk/electricity](http://www.nationalgrid.com/uk/electricity)

12. In particular, **The Company** prepares **Offers** upon the basis that each party will design, construct, install, control, operate and maintain, in the case of the **User**, the **Plant** and **Apparatus** which he will own and, in the case of **The Company**, **Transmission Plant** and **Transmission Apparatus** usually but not necessarily applying the ownership rules set out in Paragraph 2.12 of the **CUSC** (Principles of Ownership). If the **Applicant** wishes **The Company** to carry out any of these matters on the **Applicant's** behalf please contact **The Company**<sup>3</sup> for further details.
  
13. **Applicants** of a type set out in **Grid Code** CC 8.1, Generators and DC Converter Station Owners, should appreciate that they will be required to perform **Mandatory Ancillary Services** to ensure that System Operational Standards can be achieved. This requirement may have implications towards **Plant** specification. You should be satisfied that before an application is made that your intended **Plant** design can meet the requirements.
  
14. Under Special Condition M of the Transmission Licence **The Company** has additional requirements in respect of information on **Offers** where an **Applicant** has applied for connections in Scotland as well as in England and Wales and the **Applicant** doesn't intend to connect at all locations, but intends to choose which location or locations to connect at on the basis of the offers it receives. Question 5 in Section A is intended to assist **The Company** in early identification of this situation arising. **The Company's Website**<sup>4</sup> contains a statement that describes the means by which **The Company** shall ensure compliance with Special Condition M of its **Transmission Licence**.
  
15. **Applicants** have the option to request a **Connection Offer** on the basis of a **Design Variation**. In requesting such an **Offer**, the **Applicant** acknowledges that the connection design (which provides for connection to the **GB Transmission System**) will fail to satisfy the deterministic criteria detailed in paragraphs 2.5 to 2.13 of the **GB SQSS**. In making such an **Offer**, in accordance with its obligations under Paragraphs 2.13.2 and 2.13.7 of **CUSC**, **The Company** may include **Restrictions on Availability**. If **Applicants** require further assistance on this option they are recommended to contact **The Company** before completing this application form.
  
16. The **Applicant** has the ability to pay a fixed price application fee in respect of their application or pay the actual costs incurred (variable price application fee). The fixed price application fee is derived from analysis of historical costs of similar applications. The variable price application fee is based on an advance of the Transmission Licensee's Engineering and out of pocket expenses and will vary according to the size of the scheme and the amount of work involved. The **Applicant** is requested to indicate their preferred basis of application fee in Section A question 4. The **Applicant** is advised that further information can be obtained from the **Charging Statements** which can be found on **The Company's Website**<sup>5</sup>.
  
17. **Applicants have the option to request a Connection Offer on the basis of the Local Capacity Nomination only or the Local Capacity Nomination and Transmission Entry Capacity and for Transmission Entry Capacity to be provided in the same timescale or subsequent to the Local Capacity Nomination. Please note the Local Capacity Nomination is a pre-requirement for TEC.**

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<sup>3</sup> Customer Services, National Grid Electricity Transmission plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA (Telephone No. 01926 654634)

<sup>4</sup> [www.nationalgrid.com/uk/electricity](http://www.nationalgrid.com/uk/electricity)

<sup>5</sup> [www.nationalgrid.com/uk/electricity](http://www.nationalgrid.com/uk/electricity)

- 18.** ~~17.~~ **The Company** will provide an Offer for the Local Capacity Nomination or Transmission Entry Capacity based upon the GB Security and Quality of Supply Standards (GBSQSS). The criteria presented in the **GBSQSS** represent the minimum requirements for the planning and operation of the **GB Transmission System**. The GBSQSS allows for a generation or demand **Applicant** to request a variation to the connection design. For example, such a connection design variation may be used to take account of the particular characteristics of a power station, the nature of connection of embedded generation or particular load cycles.
- 19.** ~~18.~~ Any variation to connection design must not reduce the security of the MITS (Main Interconnected Transmission System) to below the minimum planning standard, result in any additional costs to any particular customer and compromise ~~and any~~ GB transmission licensee's ability to meet other statutory obligations or licence obligations. Further details of these conditions and standards can be found on **The Company's Website**<sup>6</sup>. Note: Need to consider application of this
- 20.** ~~19.~~ Please complete this application form in black print and return it together with the appropriate application fee to the Customer Services Manager, National Grid Electricity Transmission plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA (Telephone No. 01926 654634). In addition to returning the application form to the Customer Services Manager an electronic copy of the application form may be e-mailed to **The Company** at [camdata@uk.ngrid.com](mailto:camdata@uk.ngrid.com)
- 21.** ~~20.~~ For the most up to date contact details applicants are advised to visit **The Company's Website**<sup>5</sup>.

# APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

**SECTION A. DETAILS OF APPLICANT (in respect of this application)**

**1. Registered Company**

Name:.....

Address (of Registered Office in the case of a Company)

.....  
.....  
.....

Company Number:.....

Parent Company Name (if applicable):.....

**2. Company Secretary or person to receive CUSC notices**

Name:.....

Email:.....

Telephone:.....

Fax:.....

**3. Commercial Contact/Agent (person to receive Offer if different from Company Secretary or person to receive CUSC notices identified in 2 above)**

Name:.....

Title:.....

Address:.....

# APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES  
BEFORE COMPLETING AND SIGNING THIS APPLICATION  
FORM**

.....

.....

Email:.....

Telephone:.....

Fax:.....

# APPLICATION FOR A NEW CONNECTION

## PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM

4. Please identify which application fee basis you wish to use for this application.

Fixed price application fee [ ]

Variable price application fee [ ]

5. If this is an application for connection to the **GB Transmission System** in England and Wales please complete 5a. If this is an application for connection to the **GB Transmission System** in Scotland please complete 5b.

5a. Have you made any applications for connection to the **GB Transmission System** in Scotland which are being processed prior to **Offer** by **The Company** or where an **Offer** has been made that **Offer** has not yet been accepted by you but remains open for acceptance?

If so, are such applications intended as alternatives to this one i.e. you intend to choose which of this or those other applications to proceed with on the basis of the offer made.

Yes – please list the applications.

.....  
.....

No [ ]

Not sure [ ]

(**The Company** will contact you to clarify)

5b. Have you made any applications for connection to the **GB Transmission System** in England and Wales which are being processed prior to **Offer** by **The Company** or where an **Offer** has been made that **Offer** has not yet been accepted by you but remains open for acceptance?

If so, are such applications intended as alternatives to this one i.e. you intend to choose which of this or those other applications to proceed with on the basis of the offer made.

## APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES  
BEFORE COMPLETING AND SIGNING THIS APPLICATION  
FORM**

Yes – please list the applications.

.....  
.....

No        [ ]

Not sure    [ ] (The Company will contact you to clarify)

# APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

**SECTION B. THE PROPOSED POINT OF CONNECTION**

1. Please identify (preferably by reference to an extract from an Ordnance Survey Map) the intended location (the “**Connection Site**”) of the **Plant** and **Apparatus** (the “**User Development**”) which it is desired should be connected to the **GB Transmission System** and where the application is in respect of a proposed **New Connection Site** other than at an existing sub-station. Please specify the proposed location and name of the **New Connection Site** (which name should not be the same as or confusingly similar to the name of any other **Connection Site**) together with details of access to the **Connection Site** including from the nearest main road.

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.....  
.....

2. Please provide a plan or plans of the proposed **Connection Site** indicating (so far as you are now able) the position of all buildings, structures, **Plant** and **Apparatus** and of all services located on the **Connection Site**.

.....  
.....  
.....  
.....

3. Give details of the intended legal estate in the **Connection Site** (to include leasehold and freehold interests and in the case of **Connection Sites** in Scotland legal interests and heritable or leasehold interests including servitudes or other real rights) in so far as you are aware.

.....  
.....  
.....

# APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

4. Who occupies the **Connection Site** in so far as you are aware?

.....  
.....

5. If you believe that a new sub-station will be needed, please indicate by reference to the plan referred to in Section B question 2 above the **Applicant's** suggested location for it - giving dimensions of the area.

.....  
.....

6. If you are prepared to make available to **The Company** or, for **Connection Sites** in Scotland, the **Relevant Transmission Licensee** the land necessary for the said sub-station, please set out brief proposals for their interest in it including (if relevant) such interest and the consideration to be paid for it.

.....  
.....

7. Is space available on the **Connection Site** for working storage and accommodation areas for **The Company** contractors or, for **Connection Sites** in Scotland, the contractors of the **Relevant Transmission Licensee**? If so, please indicate by reference to the plan referred to in Section B question 2 above the location of such areas, giving the approximate dimensions of the same.

.....  
.....  
.....

# APPLICATION FOR A NEW CONNECTION

## PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM

8. Please provide details (including copies of any surveys or reports) of the physical nature of land in which you have a legal estate or legal interest at the proposed **Connection Site** including the nature of the ground and the sub-soil.

.....  
.....

9. Please give details and provide copies of all existing relevant planning and other consents (statutory or otherwise) relating to the **Connection Site** and the **User Development** and/or details of any pending applications for the same.

.....  
.....

# APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

10. Is access to or use of the **Connection Site** for the purposes of installing, maintaining and operating **Plant** and **Apparatus** subject to any existing restrictions? If so, please give details.

.....  
.....  
.....  
.....

11. If you are aware of them, identify by reference to a plan (if possible) the owners and (if different) occupiers of the land adjoining the **Connection Site**. To the extent that you have information, give brief details of the owner's and occupier's estates and/or interests in such land.

.....  
.....  
.....

## **APPLICATION FOR A NEW CONNECTION**

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES  
BEFORE COMPLETING AND SIGNING THIS APPLICATION  
FORM**

## **APPLICATION FOR A NEW CONNECTION**

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES  
BEFORE COMPLETING AND SIGNING THIS APPLICATION  
FORM**

# APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

## SECTION C. TECHNICAL INFORMATION

1. Summary of Application (brief description of plant to be connected):

.....  
.....  
.....

2. Please provide full details of the proposed application together with the relevant **Standard Planning Data** as listed in Part 1 of the appendix to the **Planning Code** which are applicable to you. Note: the data concerned forms part of the **Planning Code** and **Data Registration Code**. **Applicants** should refer to these sections of the **Grid Code** for an explanation.

3. Please provide a copy of your **Safety Rules** if not already provided to **The Company**.

Included [ ]

Already provided [ ]

Will be provided later [ ]

4. Please indicate if your plant may be able to provide (or you could consider providing) the following technical capability):-

- a. Generation from Auxiliary Units (Reserve Services) [ ]**
- b. Spinning Generation [ ]**
- c. Fast Start capability [ ]**
- d. Frequency Response above Mandatory requirements [ ]**
- e. Demand Reduction / Management [ ]**

# APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

- f. Reactive capability above Mandatory requirements* [ ]
- g. Synchronous Compensation* [ ]
- h. Black Start Capability* [ ]
- i. Emergency Maximum Generation* [ ]
- j. Intertrip* [ ]
- k. Other (please detail below)* [ ]

.....

.....  
*The Company's Website<sup>5</sup> provides more information on the terms it offers for such technical capability.*

5. Please confirm your intended **Connection Entry Capacity** (MW)

**Connection Site** [ ]

**Generating Unit(s)** (if applicable)

**Generating Unit 1** [ ]

**Generating Unit 2** [ ]

**Generating Unit 3** [ ]

**Generating Unit 4** [ ]

Details of additional **Generating Units** are to be provided here

6. Please state the required **Local Capacity Nomination .....MW and Transmission Entry Capacity.....MW**

# APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

Please state the required LCN Period [whole Financial Years]

Please state the required TEC Period [whole Financial Years]. Please note that where LCN Works are identified this cannot be less than 8.

7. Please confirm if:

a. You would like an offer that is compliant with the deterministic criteria detailed in paragraphs 2.5 to 2.13 of the **GB SQSS** YES/NO

and/or

b. You would like an offer on the basis of a **Design Variation** YES/NO

If yes, please provide any information relevant to such an offer below.

.....  
.....  
.....

If yes, please confirm if you require information from **The Company** in relation to the probability of **Notification of Restrictions on**

# APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

Availability being issued

YES/NO

8. Do you wish to suggest an ownership boundary different from that set out in CUSC Paragraph 2.12?

Yes [ ]

No [ ]

If yes please give details:.....

.....  
.....  
.....

9. Are you considering building any assets that would be identified as **Transmission Connection Assets**? If you indicate yes **The Company** will contact you to discuss further details.

Yes [ ]

No [ ]

**10. Please confirm if you require LCN and TEC to be made available at the same time or whether you wish TEC to be provided after LCN and indicative timescales.**

**Same Time [ ]**

# APPLICATION FOR A NEW CONNECTION

PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM

After

If after please give timescales

.....

.....

.....

11 Please confirm whether, in the event that in assessing the application The Company becomes aware that LCN could be provided earlier than TEC, you would wish the Offer to be made on the basis of LCN first and Tec later.

Yes

No

[Note: are the above necessary/practical?]

# APPLICATION FOR A NEW CONNECTION

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

## SECTION D. PROGRAMME

Please provide a suggested development and construction programme in bar chart form for the work necessary to install the **User Development** (not the **Transmission Connection Assets** needing to be installed) indicating the anticipated date when the connection will be required to be made and any other key dates such as back feed date.

If not already included in the above bar chart please provide details of when the **Applicant** expects to be completing the substantive works that lead to the completion of the following phases of the **User Development** or reach the following relevant key milestones below and other additional milestones as necessary (working backwards from expected connection date at 'year 0'). This information is expected to provide the anticipated project overview at the time of application:-

- Planning Application Submitted (Town & Country Planning\*, S36,S37)
- Planning Consent Awarded
- Plant Ordered (i.e. **Power Station** or substation)
- Construction Started (site mobilisation)
- Construction Completed

Notes

- \* The consent for the **User's Power Station** granted under Section 36 of the Electricity Act or planning permission for the **User's Power Station** granted under the Town and Country Planning Act 1990 or any amendment thereto in England and Wales or the Town and Country Planning (Scotland) Act 1997 or any amendment thereto in Scotland.

~~v1.8-24<sup>th</sup> May 2008~~

CAP 161 – 163 – Version 1 – 28 November 2008

## CONNECTION APPLICATION

1. We hereby apply to connect our **Plant and Apparatus** to the **GB Transmission System** **and for LCN [and TEC]** at a **New Connection Site**. We agree to pay **The Company's** Engineering Charges on the terms specified in the **Notes** to the **Connection Application**.
2. We will promptly inform **The Company** of any change in the information given in this application as quickly as practicable after becoming aware of any such change.
3. If we are not already a **CUSC Party** we undertake for the purposes of this application to be bound by the terms of the **Grid Code** from time to time in force and to sign a **CUSC Accession Agreement**.
4. We authorise the release of certain information, on the grounds of commercial confidentiality, to the appropriate **Public Distribution System Operator(s)** or to the **Relevant Transmission Licensee**, should it be considered necessary.
5. We confirm that we:  
  
meet **The Company Credit Rating**    
do not meet **The Company Credit Rating**.
6. We confirm our agreement to the disclosure in the manner set out in Paragraph 6.30.3 of **CUSC** of the information specified in such Paragraph.
7. We confirm that we are applying in the category of:  
  
**Directly Connected Power Station**    
**Non-Embedded Customer**    
**Distribution System Directly Connected to the**  
**GB Transmission System**

[Please tick correct option].

SIGNED BY

.....

For and on behalf of the **Applicant**

Date: .....

**END OF EXHIBIT B**

**CUSC - EXHIBIT C**

**THE CONNECTION AND USE OF SYSTEM CODE  
CONNECTION OFFER**

**DIRECTLY CONNECTED POWER STATIONS  
NON EMBEDDED CUSTOMER  
DISTRIBUTION SYSTEM DIRECTLY  
CONNECTED TO THE GB TRANSMISSION SYSTEM**



~~7.~~8. Please note that in accordance with the obligation in Paragraph 1.3.3 of the CUSC a **Mandatory Services Agreement** must be entered into not later than 6 months (or such lesser time as may be agreed) prior to the expected **Commissioning Programme Commencement Date**.

~~8.~~9. To accept this **Offer**, please sign and return the originals of the [CUSC **Accession Agreement** and] **Bilateral Connection Agreement** [,**Construction Agreement**] attached to this **Offer** as Sections A. **The Company** will then itself countersign these agreements and one original of each will be returned to you for your retention. The agreements are only effective in accordance with their terms once they have been countersigned by **The Company**.

~~9.~~10. All communications in relation to this **Offer** must, in the first instance, be directed to [description].

Yours faithfully

.....  
for and on behalf of  
The National Grid Company plc

**SECTION A**  
**FORM OF BILATERAL CONNECTION AGREEMENT**  
**AND CONSTRUCTION AGREEMENT**  
**[AND CUSC ACCESSION AGREEMENT]**

END OF EXHIBIT C

**CUSC - EXHIBIT D**

**THE CONNECTION AND USE OF SYSTEM CODE  
USE OF SYSTEM APPLICATION**

**EMBEDDED GENERATOR  
DISTRIBUTION INTERCONNECTOR OWNER  
SMALL POWER STATION TRADING PARTY**

**PLEASE STUDY THE FOLLOWING NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM.**

Please note that certain expressions which are used in this application form are defined in the Interpretation and Definitions (contained in Section 11 of the **CUSC**) and when this occurs the expressions have capital letters at the beginning of each word and are in bold. If the **Applicant** has any queries regarding this application or any related matters then the **Applicant** is recommended to contact **The Company**<sup>1</sup> where our staff will be pleased to help.

1. **The Company** requires the information requested in this application form for the purposes of preparing an **Offer** (the "**Offer**") to enter into an agreement for use of the **GB Transmission System**. It is essential that the **Applicant** should supply all information requested in this application form and that every effort should be made to ensure that such information should be accurate.
2. Where **The Company** considers that any information provided by the **Applicant** is incomplete or unclear, or further information is required, the **Applicant** will be requested to provide further information or clarification. The provision/clarification of this information may impact on **The Company's** ability to commence preparation of an **Offer**.
3. Should there be any change in the information provided by the **Applicant** immediately inform **The Company** of such a change. Where this is a change in the information provided for Sections B to D then the **Applicant** should inform **The Company** to see if such a change can be accommodated as it is unlikely that material changes could be accommodated. If **The Company** cannot accommodate such a change bearing in mind the timescales within which the **Offer** must be made then the application will be processed on the original information although it is open to the **Applicant** to withdraw the application.
4. **The Company** shall charge the **Applicant**, and the **Applicant** shall pay to **The Company**, **The Company's** Engineering Charges in relation to the application. A fee will be charged by **The Company** in accordance with the **Charging Statements**. No application will be considered until such payment has been received.
5. The effective date upon which the application is made shall be the later of the date when **The Company** has received the application fee pursuant to Paragraph 4 above or the date when **The Company** is reasonably satisfied that the **Applicant** has completed Sections A-D. **The Company** shall notify the **Applicant** of such date.
6. **The Company** will make the **Offer** in accordance with the terms of Paragraph 3.7 (**Use of System Application**) and [Paragraph 6.10] (**Modifications** and **New Connection Sites**) of the **CUSC** and the

---

<sup>1</sup> Customer Services, National Grid Electricity Transmission plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA (Telephone No. 01926 654634)

## Transmission Licence.

7. **The Company** will make the **Offer** as soon as is reasonably practicable and, in any event, within 28 days of the effective date of the application or such later period as the **Authority** agrees to. The **Offer** may, where it is necessary to carry out additional extensive system studies to evaluate more fully the impact of the proposed development, indicate the areas that require more detailed analysis. Before such additional studies are required, the **Applicant** shall indicate whether it wishes **The Company** to undertake the work necessary to proceed to make a revised **Offer** within the 28 days period or, where relevant the timescale consented to by the **Authority**. To enable **The Company** to carry out any of the above mentioned necessary detailed system studies the **Applicant** may, at the request of **The Company**, be required to provide some or all of the **Detailed Planning Data** listed in Part 2 of the Appendix to the **Planning Code** which is part of the **Grid Code**.
8. In the course of processing your application, it may be necessary for **The Company** to consult the appropriate **Public Distribution System Operator(s)** on matters of technical compatibility of the **GB Transmission System** with their **Distribution System(s)** or to consult the **Relevant Transmission Licensees** to establish the works required on the **GB Transmission System**. On grounds of commercial confidentiality **The Company** shall need your authorisation to the release to the **Public Distribution System Operator(s)** or the **Relevant Transmission Licensees** of certain information contained in your application. Any costs incurred by **The Company** in consulting the **Public Distribution System Operator(s)** or **Relevant Transmission Licensees** would be included in **The Company Charges** for the application. If it is found by the **Public Distribution System Operator(s)** that any work is required on their **Distribution System(s)**, then it will be for the **Public Distribution System Operator(s)** and the **Applicant** to reach agreement in accordance with Paragraph 6.10.3 of the **CUSC**.
9. In accordance with [\[6.30.3\]](#) of **CUSC** **The Company** will need to disclose details of the **Bilateral Embedded Generation Agreement** entered into and shall need authorisation from the **Applicant** in respect of this.
10. If the **Applicant** is not already a **CUSC Party** the **Applicant** will be required as part of this application form to undertake that he will comply with the provisions of the **Grid Code** for the time being in force. Copies of the **Grid Code** and the **CUSC** are available on **The Company's Website**<sup>2</sup> and the **Applicant** is advised to study them carefully. **Data** submitted pursuant to this application shall be deemed submitted pursuant to the **Grid Code**.
11. **The Company's Offer** will be based to the extent appropriate upon its standard form terms for **Use of System Offer** and the **Charging**

<sup>2</sup> [www.nationalgrid.com/uk/electricity](http://www.nationalgrid.com/uk/electricity)

**Statements** issued by **The Company** under Standard Conditions C4 and C6. The **Applicant** should bear in mind **The Company 's** standard form terms of **Offer** when making this application.

12. In particular please note that **The Company** may require as a condition of the **Offer**, that the **Applicant's Plant** or **Apparatus** should meet or provide some or all of the technical requirements set out in the Appendices of the draft **Bilateral Embedded Generation Agreement** attached to **The Company's** standard form terms of **Offer** and may propose that the **Applicant's Plant** or **Apparatus** should have the capability to provide **Mandatory Ancillary Services**.
13. As provided for in **Grid Code** CC8.1 Generators and DC Converter station owner should appreciate that they will be required to perform **Mandatory Ancillary Services** to ensure that System Operational Standards can be achieved. This requirement may have implications towards plant specification. You should be satisfied before an application is made that your intended plant design can meet the requirements.

14. **The Applicant** has the ability to pay a fixed price application fee in respect of their application or pay the actual costs incurred (variable price application fee). The fixed price application fee is derived from analysis of historical costs of similar applications. The variable price application fee is based on an advance of the Transmission Licensee's Engineering and out of pocket expenses and will vary according to the size of the scheme and the amount of work involved. The **Applicant** is requested to indicate their preferred basis of application fee in Section A question 4. The **Applicant** is advised that further information can be obtained from the **Charging Statements** which can be found on **The Company's Website**<sup>3</sup>.
15. **Applicants have the option to request a Use of System Offer on the basis of LCN only or LCN and TEC and for TEC to be provided in the same timescale or subsequent to LCN. Please note LCN is a pre-requirement for TEC.**
16. ~~15.~~ **Applicants** have the option to request a **Connection Offer** on the basis of a **Design Variation**. In requesting such an **Offer**, the **Applicant** acknowledges that the connection design (which provides for connection to the **GB Transmission System**) will fail to satisfy the deterministic criteria detailed in paragraphs 2.5 to 2.13 of the **GB SQSS**. In making such an **Offer**, in accordance with its obligations under Paragraphs ~~2.13.22.12.2~~ and ~~2.13.72.12.7~~ of **CUSC**. **The Company** may include **Restrictions on Availability**. If **Applicants** require further assistance on this option they are recommended to contact **The Company** before completing this application form.
17. ~~16.~~ Please complete this application form in black print and return it together with the appropriate application fee to Customer Services Manager, National Grid Electricity Transmission plc, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA (Telephone No. 01926 65 4634). In addition to returning the application to the Customer Services Manager an electronic form may be e-mailed to **The Company** at [camdata@uk.ngrid.com](mailto:camdata@uk.ngrid.com)
18. ~~17.~~ For the most up to date contact details applicants are advised to contact **The Company Website**<sup>3</sup>.

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<sup>3</sup> [www.nationalgrid.com/uk/electricity](http://www.nationalgrid.com/uk/electricity)

# APPLICATION FOR USE OF SYSTEM

PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM

## SECTION A. DETAILS OF APPLICANT (in respect of this application)

1. **Registered Company**

Name:.....

Address (of Registered Office in the case of a Company):

.....  
.....  
.....

Company Number:.....

Parent Company Name (if applicable):.....

2. **Company Secretary or person to receive CUSC notices**

Name:.....

Email:.....

Telephone:.....

Fax:.....

3. **Commercial Contact/Agent (person to receive Offer if different from Company Secretary or person to receive CUSC notices identified in 2 above)**

Name:.....

Title:.....

Address:.....

.....  
.....

Email:.....

Telephone:.....

Fax:.....

## APPLICATION FOR USE OF SYSTEM

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

4. Please identify which application fee basis you wish to use for this application.

Fixed application fee [ ]

Variable application fee [ ]

5. If this is an application for connection to the **GB Transmission System** in England and Wales please complete 5a. If this is an application for connection to the **GB Transmission System** in Scotland please complete 5b.

- 5a. Have you made any applications for connection to the **GB Transmission System** in Scotland which are being processed prior to **Offer** by **The Company** or where an **Offer** has been made that **Offer** has not yet been accepted by you but remains open for acceptance?

If so, are such applications intended as alternatives to this one i.e. you intend to choose which of this or those other applications to proceed with on the basis of the offer made.

Yes – please list the applications.

.....  
.....

No [ ]

Not sure [ ]

(**The Company** will contact you to clarify)

- 5b. Have you made any applications for connection to the **GB Transmission System** in England and Wales which are being processed prior to **Offer** by **The Company** or where an **Offer** has been made that **Offer** has not yet been accepted by you but remains open for acceptance?

If so, are such applications intended as alternatives to this one i.e. you intend to choose which of this or those other applications to proceed with on the basis of the offer made.

Yes – please list the applications.

.....  
.....

## APPLICATION FOR USE OF SYSTEM

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE  
COMPLETING AND SIGNING THIS APPLICATION FORM**

No

Not sure

**(The Company will contact you to clarify)**

# APPLICATION FOR USE OF SYSTEM

PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM

**SECTION B: THE PROPOSED SITE OF CONNECTION TO A DISTRIBUTION SYSTEM**

1. Please identify (preferably by reference to an extract from Ordnance Survey Map) the intended location of the **Plant** and **Apparatus** (the "User Development") which it is desired should be connected to the **Distribution System**.

.....

.....

.....

2. If you believe that a new sub-station will be needed, please indicate by reference to a plan your suggested location for it.

.....

.....

.....

# APPLICATION FOR USE OF SYSTEM

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

## **SECTION C. TECHNICAL INFORMATION**

1. Summary of Application (brief description of plant to be connected):  
.....  
.....  
.....
2. Please provide the data listed in Part 1 of the Appendix to the **Planning Code** which are applicable to you. Note: the data concerned forms part of the **Planning Code** and **Data Registration Code**. **Applicants** should refer to these sections of the **Grid Code** for an explanation. Further guidance is available from **The Company** on request.
3. Please provide a copy of your **Safety Rules** if not already provided to **The Company**.  

Included	[ ]
Already provided	[ ]
Will be provided later	[ ]
4. Please indicate if your plant may be able to provide (or you could consider providing) the following technical capability:-
  - a. Generation from Auxiliary Units (Reserve Services) [ ]
  - b. Spinning Generation [ ]
  - c. Fast Start capability [ ]
  - d. Frequency Response above Mandatory requirements [ ]
  - e. Demand Reduction / Management [ ]
  - f. Reactive capability above Mandatory requirements [ ]
  - g. Synchronous Compensation [ ]
  - h. Black Start Capability [ ]
  - i. Emergency Maximum Generation [ ]
  - j. Intertrip [ ]
  - k. Other (please detail below) [ ]

## APPLICATION FOR USE OF SYSTEM

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

.....

.....  
**The Company's Website**<sup>4</sup> provides more information on the terms it offers for such technical capability.

5. Please state the required **Transmission Entry Capacity**.....MW

~~5-6.~~ Please confirm if:

a. You would like an offer that is compliant with the deterministic criteria detailed in paragraphs 2.5 to 2.13 of the GB SQSS YES/NO

and/or

b. You would like an offer on the basis of a Design Variation YES/NO

If yes, please provide any information relevant to such an offer below.

.....

.....

.....

If yes, please confirm if you require information from The Company in relation to the probability of Notification of Restrictions on Availability being issued YES/NO

<sup>4</sup> <http://www.nationalgrid.com/uk/Electricity/Balancing/services>

## APPLICATION FOR USE OF SYSTEM

PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM

Please confirm if you require LCN and TEC to be made available at the same time or whether you wish TEC to be provided after LCN and indicative timescales.

Same Time

After

If after please give timescales

.....  
.....  
.....  
.....

Please confirm whether, in the event that in assessing the application The Company becomes aware that LCN could be provided earlier than TEC, you would wish the Offer to be made on the basis of LCN first and TEC later.

Yes

No

## APPLICATION FOR USE OF SYSTEM

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM**

### **SECTION D. PROGRAMME**

Please provide a suggested development and construction programme in bar chart form for the work necessary to install the **User Development** indicating the anticipated date when the connection will be required to be made and any other key dates such as back feed date.

If not already included in the above bar chart please provide details of when the **Applicant** expects to be completing the substantive works that lead to the completion of the following phases of the **User Development** or reach the following relevant key milestones below and other additional milestones as necessary (working backwards from expected connection date at 'year 0'). This information is expected to provide the anticipated project overview at the time of application:-

- Planning Application Submitted (Town & Country Planning\*, S36,S37)
- Planning Consent Awarded
- Plant Ordered (i.e. **Power Station** or substation)
- Construction Started (site mobilisation)
- Construction Completed

#### Notes

- \* The consent for the **User's Power Station** granted under Section 36 of the Electricity Act or planning permission for the **User's Power Station** granted under the Town and Country Planning Act 1990 or any amendment thereto in England and Wales or the Town and Country Planning (Scotland) Act 1997 or any amendment thereto in Scotland.

## APPLICATION FOR USE OF SYSTEM

PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE COMPLETING AND SIGNING THIS APPLICATION FORM

### USE OF SYSTEM APPLICATION

Please study the notes before completing and signing this application form.

1. We hereby apply to use the **GB Transmission System** from our connection to [ ] **Distribution System**.

2. We will promptly inform **The Company** of any change in the information given in this application as quickly as practicable after becoming aware of any such change.

3. If we are not already a **CUSC Party** we undertake for the purposes of this application to be bound by the terms of the **Grid Code** from time to time in force and to sign a **CUSC Accession Agreement**.

4. We authorise the release of certain information, on the grounds of commercial confidentiality, to the appropriate **Public Distribution System Operator(s)** or **Relevant Transmission Licensees** should it be considered necessary.

5. We confirm that we do/do not meet the **Approved Credit Rating** [and **The Company Credit Rating**].

6. We confirm our agreement to the disclosure in the manner set out in Paragraph 6.30.3 of **CUSC** of the information specified in such Paragraph.

7. We confirm that we are applying in the category of :

<b>Embedded Generator</b>	<input type="checkbox"/>
<b>Distribution Interconnector Owner</b>	<input type="checkbox"/>
<b>Small Power Station Trading Party</b>	<input type="checkbox"/>

[Please tick correct option].

SIGNED BY:

.....  
For and on behalf of the **Applicant**

Date:.....

**END OF EXHIBIT D**

## **APPLICATION FOR USE OF SYSTEM**

**PLEASE ENSURE THAT YOU HAVE STUDIED THE NOTES BEFORE  
COMPLETING AND SIGNING THIS APPLICATION FORM**

**CUSC – EXHIBIT E**

**THE CONNECTION AND USE OF SYSTEM CODE**

**USE OF SYSTEM OFFER**

**EMBEDDED GENERATOR  
DISTRIBUTION INTERCONNECTOR OWNER  
SMALL POWER STATION TRADING PARTY**

The Company Secretary

Date: [                    ]

Dear Sirs

**USE OF SYSTEM OFFER**  
**[SITE OF CONNECTION] [REFERENCE]**

Set out below is our offer for use of the **GB Transmission System** at [site/substation]. Please note that certain expressions which are used in this **Offer** are defined in the Interpretation and Definitions (contained in Section 11 of the **CUSC**) and when this occurs the expressions have capital letters at the beginning of each word and are in bold.

- 1     **The Company** offers to enter into a **Bilateral Embedded Generation Agreement** [and **Construction Agreement**] reference number [                    ] in the form and terms attached as Section A.
  
- 2     It is a condition of this offer that:
  - (i)    if not already a **CUSC** Party you enter into a **CUSC Accession Agreement**;
  
  - (ii)   you satisfy **The Company** that you have entered into a **Distribution Agreement** with the owner/operator of the **Distribution System** for the connection of the **User's Plant** to and the use of such **Distribution System**;
  
  - [(iii) where required by **The Company** that you enter into a **Transmission Related Agreement** (power station with **Design Variation only**)]
  
- 3     The technical conditions with which you must comply as a term of this offer are set out in the **Grid Code**. Additional or different technical conditions are set out in the Appendices to the **Bilateral Embedded Generation Agreement**. It is your responsibility to ensure that your equipment complies with the requirements of the relevant conditions.
  
- 4     **The Offer is made on the basis of an LCN of [    ] [and a TEC of [    ]]. [The LCN and TEC [are to be made available on the same date] [TEC is to be made available at a later date than LCN].**

- 5 This offer is open for acceptance according to the terms of Paragraph 3.7.4 of the **CUSC** and the **Transmission Licence**. Please note your right to make an application to the **Authority** to settle the terms of the offer pursuant to Standard Condition C9 of the **Transmission Licence**.
- 56 Please note the provisions of Paragraph 6.10.4 of the **CUSC** in respect of interactive offers which, inter alia, allows **The Company** to vary the terms of this **Offer** if a **Connection** or **Modification Offer**, which interacts with this **Offer**, is accepted first. In terms of Paragraph 6.10.4 of the **CUSC**, **The Company** will advise you of another offer being made by **The Company**, which may interact with your **Offer**.
- 67 To accept this offer, please sign and return the originals of the **Bilateral Embedded Generation Agreement** [and **CUSC Accession Agreement**] [and **Construction Agreement**] attached to this offer as Section A. **The Company** will then itself execute the Agreements and one original of each will be returned to you for your retention. The Agreements are only effective in accordance with their terms once they have been countersigned by **The Company**.
- 78 All communications in relation to this **Offer** should, in the first instance, be directed to [Description]. ]].

Yours faithfully

.....  
for and on behalf of  
National Grid Electricity Transmission plc

**SECTION A**  
**FORM OF BILATERAL EMBEDDED GENERATION AGREEMENT**  
**AND CONSTRUCTION AGREEMENT**  
**AND CUSC ACCESSION AGREEMENT**

**END OF EXHIBIT E**

**CUSC – EXHIBIT XA**

**THE CONNECTION AND USE OF SYSTEM CODE – SHARED ACCESS  
CAPACITY RATE REQUEST FORM**

**DIRECTLY CONNECTED POWER STATION**

**EMBEDDED POWER STATION**

**INTERCONNECTOR OWNER**

**DISTRIBUTION INTERCONNECTOR**



**The Company – Shared Access Capacity Rate Request**

**Please ensure that you have studied the notes before completing and signing this form.**

**A. Details of User (Donating Sharing User)**

Name:

Address:

Fax No.:

Email Address:

Registered Number:

Name Title and Contact Details (including email address) for the person authorised to deal with this **Shared Access Capacity Rate Request** for and on behalf of the **User**.

.....

**B. Bilateral Connection Agreement or Bilateral Embedded Generation Agreement details**

Please detail the **Bilateral Agreement** date and reference number.

.....

**C. Connection Site/Node**

Please detail the **Connection Site/Node** or site of **Connection/Node** to which the **Shared Access Capacity Rate Request** relates.

.....

**D. Sharing Period**

Please provide the dates of the **Sharing Period** in weeks commencing on a Monday to which the **Sharing Request** relates.

<b><u>Sharing Period</u></b>	<b><u>From</u></b>	<b><u>To</u></b>
No. of Weeks	00.00 from [Must be a Monday]	23.59 Must be a Sunday

.....

**E. Maximum Levels (in whole MW) to be Shared**

Please provide details of the maximum level (in whole MW).

Maximum [ ] MW (Positive only)

**F. Details of User (Receiving Sharing User)**

Name:

Address:

Fax No.:

Email Address:

Registered Number:

Name Title and Contact Details (including email address) for the person authorised to deal with this **Shared Access Capacity Rate Request** for and on behalf of the **User**.

.....

**G. Bilateral Connection Agreement or Bilateral Embedded Generation Agreement details**

Please detail the **Bilateral Agreement** date and reference number.

.....

**H. Connection Site/Node**

Please detail the **Connection Site/Node** or site of **Connection/Node** to which the **Shared Access Capacity Rate Request** relates.

.....

**SHARED ACCESS CAPACITY RATE REQUESTFORM**

1. We agree to pay the **Shared Access Capacity Rate Request Fee** on the terms specified in the **Notes** to this **Request Form**.
2. As the **Donating User** we confirm that the data submissions in respect of the **Connection Site/Node** or site of **Connection/Node** under the **Grid Code** are complete, accurate and up to date.
3. As the **Receiving User** we confirm that the data submissions in respect of the **Connection Site/Node** or site of **Connection/Node** under the **Grid Code** are complete, accurate and up to date.

Signed for and on behalf of the:

.....

**Donating User**

.....

**Receiving User**

## **ANNEX 2 – WORKING GROUP TERMS OF REFERENCE AND MEMBERSHIP**

### **Working Group Terms of Reference and Membership**

#### **TERMS OF REFERENCE FOR CAP161-164 WORKING GROUP 'ACCESS WORKING GROUP 1'**

#### **RESPONSIBILITIES**

1. The Working Group is responsible for assisting the CUSC Amendments Panel in the evaluation of CUSC Amendment Proposals CAP161, 162, 163 and 164 tabled by National Grid at the Amendments Panel meeting on 25<sup>th</sup> April 2008.
2. The proposals must be evaluated to consider whether each of them better facilitates achievement of the applicable CUSC objectives. These can be summarised as follows:
  - (a) the efficient discharge by the Licensee of the obligations imposed on it by the Act and the Transmission Licence; and
  - (b) facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity.
3. It should be noted that additional provisions apply where it is proposed to modify the CUSC amendment provisions, and generally reference should be made to the Transmission Licence for the full definition of the term.

#### **SCOPE OF WORK**

4. The Working Group must consider the issues raised by the Amendment Proposals and consider if each of the proposals identified better facilitates achievement of the Applicable CUSC Objectives.
5. In addition to the overriding requirement of paragraph 4, the Working Group shall consider and report on the following specific issues:
  - Impact on bilateral agreements (BCA, BEGAs, CONSAG, Offers etc.)
  - Impact on core industry documents and other documents (incl. Transmission License)
  - Impact on computing systems, central and individual CUSC party
  - Application process and impact on bilateral agreements for short-term access
  - Implementation and transition requirements, including timescales
  - The impact on System Operator costs, internal and external
  - A cost benefit analysis, including market impacts and the cost of carbon<sup>8</sup>

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<sup>8</sup> Taken account of Ofgem guidance with respect to:  
<http://www.ofgem.gov.uk/Licensing/IndCodes/Governance/Documents1/Code%20objectives>

- Efficient investment signals [generation, transmission & interconnectors]
  - Definitions, including the interaction with other codes and methodologies
  - Offshore arrangements
  - Applicability to embedded generation
  - Credit and security requirement implications
  - Impact on the demand (exit) arrangements
  - Overall revenue recovery (TNUoS, BSUoS and other charges)
  - Impact assessment on all users and licensees
  - The CUSC linkages to the charging methodologies
  - Impact of short term access on existing CUSC Parties long term rights
  - Impact on Security of Supply
  - Impact on Maintenance of the Reliability, Safety & Operation of the Grid
  - Limiting participation to physical players
- 5a. For CAP161, System Operator Release of Short-term Entry Rights, the working group shall also consider and report on the following specific issues:
- Impact on existing short term products, LDTEC and STTEC
  - The auction process
  - Temporal definition of the product(s)
  - Transparency of information required before and after auction
  - The process for recording contractual holding or access rights
  - The payment process [assuming pay as bid is not a charging issue]
  - Requirement for and implications of any restrictions to the product e.g. a buyback price cap
  - Ensuring that the arrangements do not unduly discriminate against any particular plant type or range of plant types
  - Consistency with European regulations
  - The need for a short term baseline for zonal release
  - Economic release criterion
  - Who should run the auction
- 5b. For CAP162, Entry Overrun, the working group shall also consider and report on the following specific issues:
- Local allocation and physical asset capability limits
  - Interaction with the provision of Balancing Services (including services such as frequency response, MaxGen Service and black start)
  - Settlement process, including resolution of settlement (e.g. half hour)
  - Lessons learnt from (and interaction with) cashout in the BSC
  - Ensuring that the arrangements do not unduly discriminate against any particular plant type or range of plant types
  - Additional information transparency
- 5c. For CAP163, Entry Capacity Sharing, the working group shall also consider and report on the following specific issues:
- The notification process
  - The transition arrangements for moving towards a sharing product
- 5d. For CAP164, Connect and Manage, the working group shall also consider and report on the following specific issues:
- The lead time for connection

- Consider the transparency of bilateral changes to the connection date, including consideration of pre-defined circumstances by which this would be possible
  - The appropriateness of the symmetry in rights and obligations
  - The transition arrangements for existing contracts
  - Interaction with other short term products
- 5e This working group shall have a sub group, to be known as “Access Working Group 3”. The Terms of Reference for Access Working Group 3 shall be agreed by the Amendments Panel and shall include the consideration of a number of enabling changes, principally:
- Zonal access rights
  - Local only applications
  - Zoning criteria
  - Local asset charging
  - Residual charging
  - Credit requirements for TNUoS charges based on a kWh element.
6. The Working Group is responsible for the formulation and evaluation of any Working Group Alternative Amendments (WGAAs) arising from Group discussions which would, as compared with the Amendment Proposals, better facilitate achieving the applicable CUSC objectives in relation to the issue or defect identified.
7. The Working Group should become conversant with the definition of Working Group Alternative Amendments which appears in Section 11 (Interpretation and Definitions) of the CUSC. The definition entitles the Group and/or an individual Member of the Working Group to put forward a Working Group Alternative Amendment if the Member(s) genuinely believes the Alternative would better facilitate the achievement of the Applicable CUSC Objectives. The extent of the support for the Amendment Proposals or any Working Group Alternative Amendments arising from the Working Group’s discussions should be clearly described in the final Working Group Report to the CUSC Amendments Panel.
8. There is an obligation on the Working Group Members to propose the minimum number of Working Group Alternatives where possible.
9. All proposed Working Group Alternatives should include the proposer(s) details within the Final Working Group Report, for the avoidance of doubt this includes Alternative(s) which are proposed by the entire Working Group or subset of members.
10. There is an obligation on the Working group to undertake a period of Consultation in accordance with CUSC 8.17. The Working Group Consultation period shall be for a period of 4 weeks as determined by the Amendment Panel.
11. Following the Consultation period the Working Group is required to consider all responses including any WG Consultation requests. As appropriate the Working Group will be required to undertake any further analysis and update the Original and/or Working Group Alternatives. All responses including any WG Consultation Requests shall be included within the final report including a summary of the working Groups deliberations and conclusions

12. The Working Group is to submit their final report to the CUSC Panel Secretary on **17<sup>th</sup> July 2008** for circulation to Panel Members. The conclusions will be presented to the CUSC Panel meeting on **25 July 2008**.

## MEMBERSHIP

13. It is recommended that the Working Group has the following members:

Chair	Hêdd Roberts (National Grid)
National Grid	Patrick Hynes (Proposer)
Industry Representatives	James Anderson
	Bob Brown
	Graeme Cooper
	Tony Dicicco
	Richard Ford
	Garth Graham
	Paul Jones
	Simon Lord
	Paul Mott
	Rekha Patel
	Rob Rome
	Tim Russell
	Helen Snodin
Merel van der Neut Kolfshoten	
Barbara Vest	
Authority Representative	David Hunt
Technical Secretary	Kathryn Sorrell
	Jeremy Caplin (Technical Advisor)
	STC (Technical Advisor)

NB: Working Group must comprise at least 5 Members (who may be Panel Members)

14. The Chair of the Working Group and the Chair of the CUSC Panel must agree a number that will be quorum for each Working Group meeting. The agreed figure for CAP161, 162, 163 and 164 is that at least 5 Working Group members must participate in a meeting for quorum to be met.
15. A vote is to take place by all eligible Working Group members (for the avoidance of doubt, that is (i) the Proposer (National Grid) and (ii) the Industry representatives listed above) on the proposal and each Working Group Alternative, as appropriate, as to whether it better facilitates the CUSC Applicable Objectives and indicate which option is considered the BEST with regard to the CUSC Applicable Objectives. Working Group Members will be given not less than five business days notice of the meeting at which the vote will take place. The results from the vote shall be recorded in the Working Group Report.
16. Working Group Members or their appointed alternate is required to attend a minimum of 50% of the Working Group Meetings to be eligible to participate in the Working Group vote.
17. The Technical Secretary to keep an Attendance Record, for the Working Group meetings and to circulate the Attendance Record with the Action Notes after each meeting. This will be attached to the Final Working Report.

18. The membership can be amended from time to time by the CUSC Amendments Panel.
19. If any Working Group Member wishes to nominate an Alternate (to act on their behalf in their absence from meetings) then this should be sent to the Working Group Chair once the Working Group is under way who will confirm (to the Working Group Member) that the Alternate is duly designated. For the avoidance of doubt if the Working Group Chair believes the suggested Alternate does not have sufficient expertise in the issues being considered by the Working Group they will ask the Working Group Member to suggest a more suitable Alternate.
20. Observers may be permitted by the Chair to attend any meeting. It should be noted that the observer (i) will not have a vote and (ii) cannot speak unless asked to do so by the Chair. Any CUSC Party wishing to be an observer should agree with the Working Group Chair advance .The Chair may invite - +additional industry experts to any meeting as required to ensure efficient and comprehensive coverage of the agenda.

## **RELATIONSHIP WITH AMENDMENTS PANEL**

21. The Working Group shall seek the views of the Amendments Panel before taking on any significant amount of work. In this event the Working Group Chair should contact the CUSC Panel Secretary.
22. The Working Group shall seek the Amendments Panel advice if a significant issue is raised during the Consultation process which would require a second period of Consultation in accordance with 8.17.17.
23. Where the Working Group requires instruction, clarification or guidance from the Amendments Panel, particularly in relation to their Scope of Work, the Working Group Chair should contact the CUSC Panel Secretary.
24. The working group shall maintain a register of assumptions and issues, which shall be published and reported to the Amendments Panel and other Transmission Access working groups on a regular basis.

## **MEETINGS**

25. The Working Group shall, unless determined otherwise by the Amendments Panel, develop and adopt its own internal working procedures and provide a copy to the Panel Secretary for each of its Amendment Proposals.
26. To ensure an efficient process (and mindful of room logistics) only the Working Group Member **or** their appointed Alternate can attend a meeting. If an alternate wishes to attend the same meeting as their associated member this will be as an observer (under item 18. above) unless they have previously agreed with the Working Group Chair.

## **REPORTING**

27. The Working Group Chair shall prepare final reports to the **25<sup>th</sup> July** Amendments Panel responding to the matter set out in the Terms of Reference.

28. A draft Working Group report will be produced individually for each of CAP161, 162, 163 and 164. Each draft working group report will include the relevant information from Access Working Group 3.
29. A draft Working Group Report must be circulated to Working Group members with not less than five business days given for comments.
30. Any unresolved comments within the Working Group must be reflected in the final Working Group Report.
31. The Working Group Chair (or another Working Group member nominated by him) will present the Working Group report to the Amendments Panel as required.

## **Sub-Group Terms of Reference and Membership**

### **TERMS OF REFERENCE FOR SUB GROUP FOR CAP161-166 WORKING GROUPS, 'ACCESS WORKING GROUP 3'**

#### **RESPONSIBILITIES**

1. The Sub-Group is responsible for assisting the two Working Groups established by the CUSC Amendments Panel for CAP161-66, which were tabled by National Grid at the Amendments Panel meeting on 25<sup>th</sup> April 2008.
2. The Sub-Group is established to evaluate the enabling elements of CAP161-166 and must be evaluated to consider whether the enabling elements better facilitate achievement of the applicable CUSC objectives. These can be summarised as follows:
  - (c) the efficient discharge by the Licensee of the obligations imposed on it by the Act and the Transmission Licence; and
  - (d) facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity.
3. It should be noted that additional provisions apply where it is proposed to modify the CUSC amendment provisions, and generally reference should be made to the Transmission Licence for the full definition of the term.

#### **SCOPE OF WORK**

4. The Sub-Group must consider the enabling elements and issues raised by the Amendment Proposals and consider if the proposals identified better facilitate achievement of the Applicable CUSC Objectives.
5. In addition to the overriding requirement of paragraph 4, the Sub-Group shall consider and report to the Working Groups on the appropriateness, or otherwise of the following specific issues:
  - Application process for acquiring long and short-term access products.
  - Implications for moving from nodal access rights to zonal access rights.
  - Consideration of levels of security and credit requirements for commoditised residual generation tariff.
  - Impact on core industry documents.
  - Impact on IT systems.
  - Necessity for an impact assessment from a User perspective.
  - Impact on the transparency in the calculation of TNUoS tariffs and the User's ability to replicate these using the DCLF ICRP model.
  - Consideration of issues associated with SQSS.
  - Linkage with embedded generation.
  - Linkage with offshore transmission.

6. As a Sub-Group of the Working Groups for CAP161-166, the Group will where appropriate, provide input into the formulation and evaluation of any Working Group Alternative Amendments (WGAAs).
7. There is an obligation on the Working Group to undertake a period of Consultation in accordance with CUSC 8.17. The Working Group Consultation period shall be for a period of 4 weeks as determined by the Amendment Panel.
8. Following the Consultation period the Working Group is required to consider all responses including any WG Consultation requests. As appropriate the Working Group will be required to undertake any further analysis and update the Original and/or Working Group Alternatives. All responses including any WG Consultation Requests shall be included within the final report including a summary of the working Groups deliberations and conclusions.
9. The Sub-Group is to submit their final report to the Working Groups and the CUSC Panel Secretary on 17<sup>th</sup> July 2008 for circulation to Panel Members. The conclusions will be presented to the CUSC Panel meeting on 25 July 2008.

## MEMBERSHIP

10. It is recommended that the Sub-Group has the following members:

Chair	Hêdd Roberts (National Grid)
National Grid Representative	Craig Maloney
Industry Representatives	Graeme Cooper
	Paul Jones
	Allan Kelly
	David Lewis
	Robert Longden
	Simon Lord
	Frank Prashad
	Louise Schmitz
	Nigel Scott / Helen Snodin
	Dennis Timmins
	Dave Wilkerson
	Barbara Vest
Technical Expert	Beehun Tan/ Qiong Zhou (Jo)
Authority Representative	Anthony Mungall
Technical Secretary	Tom Ireland (National Grid)

NB: The Sub-Group must comprise at least 5 Industry Representatives (who may be Panel Members)

11. The Chair of the Sub-Group and the Chair of the CUSC Panel must agree a number that will be quorum for each Sub-Group meeting. The agreed figure is that at least 5 Sub-Group members must participate in a meeting for quorum to be met.

12. The Technical Secretary to keep an Attendance Record, for the Sub-Group meetings and to circulate the Attendance Record with the Action Notes after each meeting. This will be attached to the Final Sub-Group Report. The Chair will circulate the Working Group Report after each meeting.
13. The membership can be amended from time to time by the CUSC Amendments Panel.

#### **RELATIONSHIP WITH AMENDMENTS PANEL**

14. The Sub-Group shall seek the views of the Amendments Panel and Working Groups 1 and 2 before making a significant change to the scope of work. In this event the Sub-Group Chairman should contact the CUSC Panel Secretary.
15. The Working Group shall seek the Amendments Panel advice if a significant issue is raised during the Consultation process which would require a second period of consultation in accordance with 8.17.17.
16. Where the Sub-Group requires instruction, clarification or guidance from the Amendments Panel and Working Groups 1 and 2, particularly in relation to their Scope of Work, the Sub-Group Chairman should contact the CUSC Panel Secretary.

#### **MEETINGS**

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

#### **REPORTING**

18. The Sub-Group Chairman shall prepare a final report to the 25<sup>th</sup> July 2008 Amendments Panel responding to the matter set out in the Terms of Reference.
19. A draft Sub-Group Report must be circulated to Sub-Group members with not less than five business days given for comments.
20. Any unresolved comments within the Sub-Group must be reflected in the final Sub-Group Report.
21. The Chairman (or another member nominated by him) will present the Sub-Group report to the Amendments Panel as required.
22. An updated risk register will be published and discussed as a standing agenda item at each TCMF.

**ANNEX 3 – WORKING GROUP ATTENDANCE REGISTER**

Working Group 1 attendance (the numbers relate to the alternate)

Working Group 1 members	13	28	10	23	8	18	6	20	3	10	19	23	5	12	18
	May		Jun		Jul		Aug		Sep		Oct		Nov		
James Anderson	✓	✓	✓	✓	6		✓	✓	✓	✓	✓	✓	✓	✓	✓
Bob Brown	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓
Graeme Cooper		✓		✓	✓	✓					✓		✓	✓	✓
Tony Diccico	✓	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Richard Ford	✓	✓	✓	✓	✓		✓		✓	✓			✓		✓
Garth Graham	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Paul Jones	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
Simon Lord	✓	2	✓	✓	✓	✓	✓	2	2	2	✓		2	✓	✓
Paul Mott	✓		✓	✓	✓	✓	✓	8	✓	8	✓		✓	✓	
Rekha Patel	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rob Rome	✓	✓	✓	✓	✓	✓	✓	✓		✓	9		9	✓	✓
Tim Russell	✓	✓	✓	✓	7	✓		✓	✓	✓	✓	✓	✓	✓	✓
Helen Snodin	✓	3	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
Merel van der Neut Kolfshoten	✓	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Barbara Vest	✓	✓	5	✓	✓	✓		✓	✓	✓	5	✓			
Patrick Hynes	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓
Hêdd Roberts (Chair)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kathryn Sorrell (Tec Sec)	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Alternates and observers	13	28	10	23	8	18	6	20	3	10	19	23	5	12	18
	May		Jun		Jul		Aug		Sep		Oct		Nov		
Jeremy Caplin (NG)	✓	✓	✓	✓			✓	✓	✓	✓	✓				
David Hunt (Ofgem)		✓	✓	✓	✓	✓	✓	✓			✓	✓		✓	✓
Deborah MacPherson (STC)	✓	✓		✓	✓			✓	✓		✓	✓	✓	✓	
Min Zhu (Ofgem)	✓								✓	✓					
Brian Taylor (NG)	✓														
Andy Rimmer		2						2	2	2			2		
Fiona Navesey		4													
Dennis Timmins		1													
Nigel Scott		3													
Ian Moss			5	✓	✓	✓	✓		✓		5				
Emma Luckhurst								8		8					
Stuart Cook (Ofgem)					✓										
Gerry Hoggan					6										
Paul Hurlock (National Grid)					✓	✓									
Gaynor Hartnell					7										
Ian Lomas (BERR)							✓								
Kevin Dibble								2							
Louise Schmitz											9		9		

Teleconference is marked as attending

### Working Group 3 attendance

Date	12-May	27-May	04-Jun	16-Jun	29-Jun	13-Jul	29-Jul	13-Aug	22-Aug	02-Sep	12-Sep	25-Sep	10-Nov
Meeting No.	1	2	3	4	5	6	7	8	9	10	11	12	13

Allan Kelly	1	1	1	1	1	1		1	1				
Anthony Mungall	1	1		1		1		1			1		1
Barbara Vest	1				1	1	1	1			1	1	
Craig Maloney	1	1	1	1	1	1	1	1	1		1	1	1
Dave Wilkerson	1	1	1	1	1	1	1	1			1	1	1
Dennis Timmins	1		1	1	1	1	1		1		1	1	1
Frank Prashad	1		1	1	1	1	1	1	1		1	1	
Hëdd Roberts	1	1	1	1	1	1	1	1	1		1	1	1
Louise Schmitz	1	1	1	1	1	1	1	1	1		1	1	1
Helen Snodin (N Scott)	1	1	1	1	1	1	1	1	1		1	1	1
Paul Jones	1	1	1	1	1		1	1	1		1		1
Robert Longden	1	1		1		1	1	1	1		1		1
Simon Lord	1			1	1	1	1				1	1	1
David Lewis	1												
Bee Hun Tan				1	1	1	1	1	1		1	1	
Tom Ireland	1	1	1	1	1	1	1	1	1		1		1
Chris Barrass	1	1		1		1	1						
Qiong Zhou (Jo)	1	1		1	1	1	1	1	1		1	1	
Brian Taylor		1											
Michael Dodd			1		1		1		1			1	
Sebastian Eyre			1			1							
Emma Luckhurst			1		1	1	1				1	1	
Andrew Rimmer			1										
Dan Jerwood			1										
Stefan Leedham				1									
Stephen Curtis				1	1		1	1			1	1	1
Garth Graham					1								
Owen Wilkes					1								
David Walker						1							
Stuart Cotten						1	1	1					
James Anderson							1					1	
Stuart Cook						1					1		
David Scott													1

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**ANNEX 4 – AMENDMENT PROPOSAL FORM**

<b>CUSC Amendment Proposal Form</b>	<b>CAP: 161</b>
<b>Title of Amendment Proposal:</b>	
Transmission Access – System Operator Release of Short-term Entry Rights	
<b>Description of the Proposed Amendment (<i>mandatory by proposer</i>):</b>	
<p>It is proposed that National Grid would be permitted to release additional entry rights in operational timescales, the short term. These short-term entry rights would be released only when National Grid believes there is spare capacity, where spare capacity is defined in economic terms as capacity for which the ex ante reserve price exceeds the associated buyback risk.</p> <p>National Grid would release short-term entry rights through auction(s) in operational timescales. The mechanics of the auction will be established in the assessment phase. The rights would be zonal with a duration optimised to best meet both User and System Operator requirements, to be agreed in the assessment. The additional entry rights may be offered through auctions in different timescales, e.g. x weeks ahead for a weekly right or year ahead for a quarterly right. Close to real time there may be a preliminary stage of the auction to ascertain interest and justify the analysis involved in producing the auction information and to allow auction zone volumes to be allocated more efficiently.</p> <p>The two main differences between System Operator release of short-term entry rights and existing short-term products, Limited Duration TEC (LDTEC) and Short-term TEC (STTEC), are that National Grid will be permitted to release short-term entry rights even if this increases the operational costs (because the risk of these costs will be factored into the reserve price); and the available volume will be released through an auction process.</p> <p>The construction of the reserve price, which does not form part of the CUSC, will be linked to the forecast cost and risk of releasing the short-term entry rights. Once granted, System Operator released short-term entry rights would generally confer the same right as any other entry access product (i.e. compensation if withdrawn). However, in order to maximise the potential volume offered consideration should be given to a codified buyback price. This would allow greater volumes at lower prices to be released.</p> <p>This amendment includes a revised process for ‘local only’ applications (connection without long-term entry rights for the wider system) and a change in the nature of long-term and short-term entry rights from nodal to zonal. The zones used would be consistent across all long-term and short-term products. The proposer suggests that in order to ensure equitable treatment of non locational asset costs that the residual charge should be commoditised.</p> <p>Appropriate credit will be required. The level required would be established in the assessment stage in accordance with the Best Practice Guidelines for Gas and Electricity Network Operator Credit Cover.</p> <p>A more detailed description is provided in an attachment to this proposal form: System Operator release of short-term entry rights straw man.</p>	
<b>Description of Issue or Defect that Proposed Amendment seeks to Address (<i>mandatory by proposer</i>):</b>	
<p>The lack of flexibility of short-term products and the application process for current entry access products can restrict the efficient use of spare capacity and redistribution of previously allocated capacity.</p> <p>In addition, under the current arrangements, users who release long-term entry access rights are committing not to export. This can lead to potential overbooking of long-term rights, delayed connection and a reliance on administered rules for determining the appropriate level of sharing of transmission capacity between users.</p>	

**Impact on the CUSC (this should be given where possible):**

This amendment will most likely require amendment to Section 6 (General Provisions) and Section 11 (Interpretation and Definition) of the CUSC. There will also be changes to Section 2 (Connection), Section 3 (Use of System), Section 4 (Balancing Services) and Section 9 (Interconnectors).

Furthermore, the process for granting short-term entry rights may require changes to the individual bilateral agreements or the development of new CUSC forms, however the working group should seek to minimise these e.g. short term access right holdings applied for, recorded (and published) centrally through a new IS tool rather than being updated in individual bilateral agreements.

**Impact on Core Industry Documentation (this should be given where possible):**

To be identified during assessment.

**Impact on Computer Systems and Processes used by CUSC Parties (this should be given where possible):**

There may be a requirement for new tools for submitting tenders. If required, it is envisaged that this will be via secure web based technology. Confirmation and publishing of accepted bids is likely to be through the same web based process and systems.

Systems for recording and charging will also be required. These will be required to interface with existing charging systems.

**Details of any Related Modifications to Other Industry Codes (where known):**

System release of short term access rights will interact with System Operator costs. The System Operator incentive arrangements will need to provide the appropriate incentives on the National Grid to release short-term access rights in an efficient and economic manner.

The Security and Quality Supply Standard may need to be reviewed, particularly in respect of local only works, if the changes to the background are considered material. The transmission licensees may also need to apply for derogations.

**Justification for Proposed Amendment with Reference to Applicable CUSC Objectives\*\* (mandatory by proposer):**

The proposed amendment would better facilitate the achievement of Applicable CUSC Objectives (a) the efficient discharge by the licensee of the obligations imposed upon it under the Acts and by the licence; and (b) facilitating effective competition in generation, by:

- Promoting the more efficient use of the transmission system through allowing parties to connect in advance of wider transmission works.
- Improving the signals for design of the transmission system through creating an alternative to firm long-term access products priced to reflect asset costs. This would particularly be the case against the forecast increase in plant margins and forecast increase in the use of generation from intermittent sources. This may suit a range of plant types.
- Providing for the release of long-term entry rights from existing plant thus facilitating early entry in to the market for new plant.

<b>Details of Proposer:</b> Organisation's Name:	National Grid
Capacity in which the Amendment is being proposed: (i.e. CUSC Party, BSC Party or "energywatch")	CUSC Party
<b>Details of Proposer's Representative:</b> Name: Organisation: Telephone Number: Email Address:	<b>Patrick Hynes</b> <b>National Grid</b> <b>01926656319</b> <b>patrick.hynes@uk.ngrid.com</b>
<b>Details of Representative's Alternate:</b> Name: Organisation: Telephone Number: Email Address:	<b>Duncan Burt</b> <b>National Grid</b> <b>01926656703</b> <b>duncan.burt@uk.ngrid.com</b>
<b>Attachments (Yes/No): Yes</b> <b>If Yes, Title and No. of pages of each Attachment:</b> <b>System Operator release of short-term entry rights straw man , 2 pages</b>	

**Notes:**

1. Those wishing to propose an Amendment to the CUSC should do System Operator by filling in this "Amendment Proposal Form" that is based on the provisions contained in Section 8.15 of the CUSC. The form seeks to ascertain details about the Amendment Proposal System Operator that the Amendments Panel can determine more clearly whether the proposal should be considered by a Working Group or go straight to wider National Grid Consultation.
2. The Panel Secretary will check that the form has been completed, in accordance with the requirements of the CUSC, prior to submitting it to the Panel. If the Panel Secretary accepts the Amendment Proposal form as complete, then he will write back to the Proposer informing him of the reference number for the Amendment Proposal and the date on which the Proposal will be considered by the Panel. If, in the opinion of the Panel Secretary, the form fails to provide the information required in the CUSC, then he may reject the Proposal. The Panel Secretary will inform the Proposer of the rejection and report the matter to the Panel at their next meeting. The Panel can reverse the Panel Secretary's decision and if this happens the Panel Secretary will inform the Proposer.

The completed form should be returned to:

Beverley Viney  
Panel Secretary  
Commercial Frameworks  
National Grid  
National Grid House  
Warwick Technology Park  
Gallows Hill  
Warwick  
CV34 6DA

Or via e-mail to: [Beverley.Viney@uk.ngrid.com](mailto:Beverley.Viney@uk.ngrid.com)

(Participants submitting this form by email will need to send a statement to the effect that the proposer acknowledges that on acceptance of the proposal for consideration by the Amendments Panel, a proposer which is not a CUSC Party shall grant a licence in accordance with Paragraph 8.15.7 of the CUSC. A Proposer that is a CUSC Party shall be deemed to have granted this Licence).

3. Applicable CUSC Objectives\*\* - These are defined within the National Grid Electricity Transmission plc Licence under Section C7F, paragraph 15. Reference should be made to this section when considering a proposed amendment.

## System Operator release of short-term entry rights straw man

### Introduction

This straw man describes a draft process for System Operator release of short-term entry rights, one of a number of proposed incremental changes to electricity access arrangements.

Based on key building blocks in the TAR report, System Operator release of short-term entry rights is described as:

**Nature of rights:** equivalent to rights purchased through longer term mechanisms (e.g. TEC), subject to any buyback cap. Therefore the rights are financially firm once granted i.e. the System Operator would need to accept Bids in the Balancing Market if the additional rights cannot be accommodated. The right has a defined start and end time. The length of the right is as per the auctioned product, to be agreed with at the working group. All users have the right to bid in an auction for short-term entry rights up to the sum of their local asset capabilities (i.e. CEC and "local" asset capability), taking account of other entry right holdings i.e. envisaged to be physical and zonal.

**Allocation:** through an auction process, based on zones and volumes with a cost reflective reserve price, to highest bidder. Depending on the lead time and duration of product, the auction may be largely computer based.

**Pricing:** Pay as bid, with a cost reflective reserve price (incl. forecast risk). The reserve price may be stepped with volume blocks.

**Secondary trading:** Released as a firm zonal right System Operator it can be traded to the extent provided for in the CUSC. The working group should consider the impact of a buyback cap on secondary trading.

### Model description

System Operator release of short-term entry rights is designed to maximise the use of the system in real time and provides an additional tool for users to manage risk. Through an auction rights will be released if the bid is economic compared to the potential increase in operational costs, the reserve price. The zones in which the additional rights are released should be consistent with other entry products and their charging regimes.

Calculation of the volume available within each zone along with a forecast reserve price requires considerable study work. The working group will consider attributes of an auction that avoid repetitive and unnecessary analysis

### Initial process proposal

The proposed process below is one of a number of options that the working group may consider. This initial proposal represents a reasonable balance between the National Grid accepting risk and facilitating the needs of a generator in the short to medium term. There may be an option of developing longer term auctions of System Operator released entry rights, however the forecast risk and therefore the risk mitigation strategy for the National Grid is likely to be significantly different as the lead time increases.

1. The product would be a weekly block of access in a predefined zone.
2. Bids for access would be submitted five weeks ahead of the period being auctioned (there may be a pre auction process to determine interest)
3. Generators would submit bids for volumes on a zonal basis.
4. The bid structure would reflect the maximum and minimum volume of plant and may have an incremental price with volume (stepped price).

5. Bid volume and prices for access will be firm, and subject to product restrictions and any local restriction (local access capability or technical limits in bilateral agreements).
6. Rights will be granted if the forecast cost of accommodating the additional volume on the system is efficient taking account of additional operational costs and system operator incentive regime reflected in the published price and volume information, and taking account of the best information available at the time.
7. As the volumes allocated to zones are interactive, National Grid may transfer unsold volume to other zones to increase the volume sold, subject to maximising the total revenue from the auction.
8. National Grid will have maximum of one week to make the assessment and publish the results of the auction.
9. Pay as bid before real time, if payment is not made the right is invalidated.
10. Appropriate credit will be required; this may need to be updated after each auction.
11. The successful Generator retains liability for payment even if it subsequently trades the right onwards after the auction or does not use that short-term entry rights in real time.

The working group will consider the timescales of the auction process and granularity of the product. For example, an annual auction for a quarterly access product. Furthermore, the working group may also wish to consider if peak and off-peak products should be included for both the weekdays and weekends to maximise access to the system.

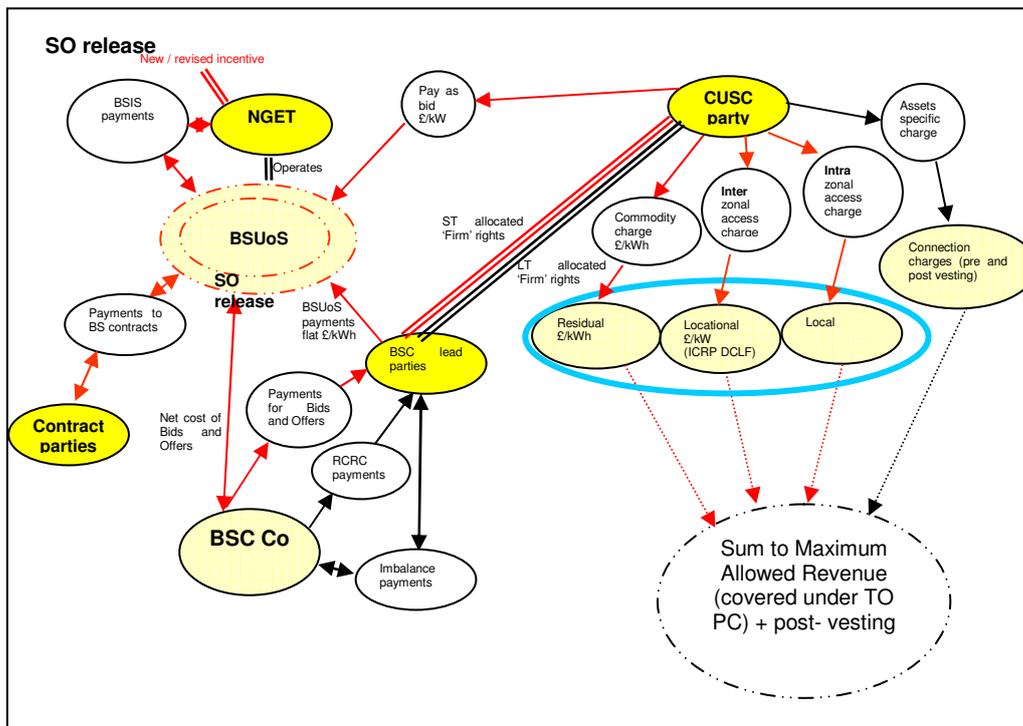
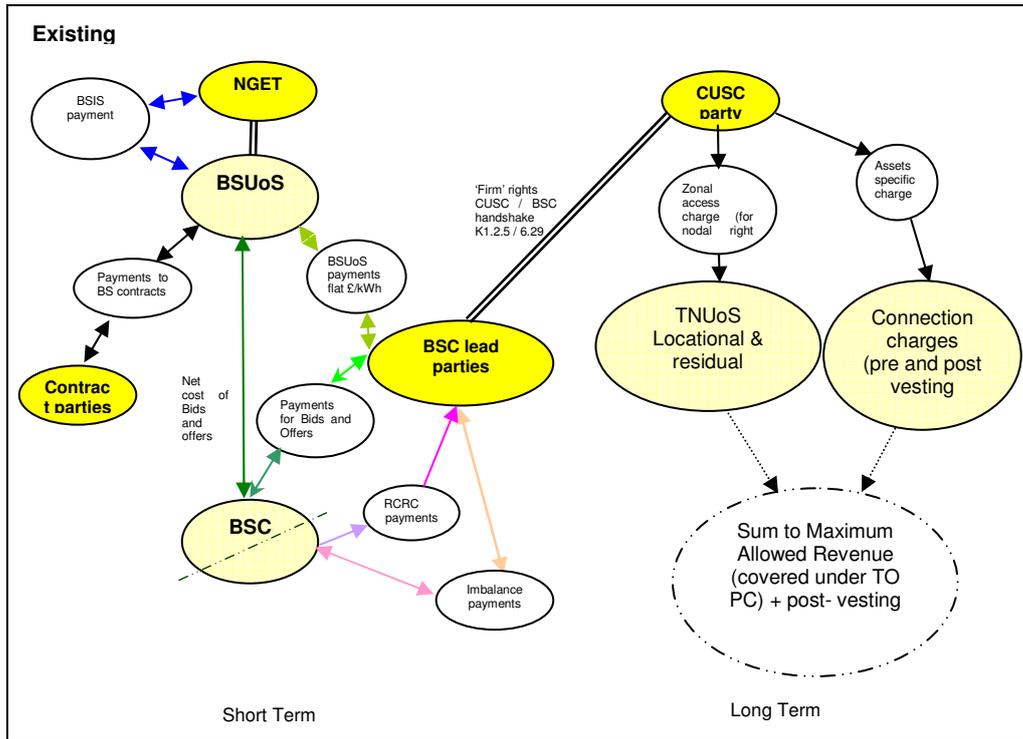
In the basic model Generators may only bid in zones where they have, or at the start or the right would have, a physical presence in the zone up to the volume requested, taking account of all bids and access holdings. However, the working group may wish to consider the pros and cons of allowing generators bid for access in adjacent zones i.e. the need for substitution rates, which by their nature are interactive with the final outcome.

### **High level assumptions**

1. Generators comply with the Grid Code, and volumes are capped by CEC.
2. Bids cannot be linked, although a generator could apply at multiple prices volumes, (all will be firm and should be physical).
3. The TNUoS residual charged is commoditised, i.e. charged half hourly on a MWh basis. This provides fair allocation of non locational costs between system users holding both long-term and short-term access, particularly if rights are granted at near to zero cost
4. There will be a licence methodology for establishing and managing zones.
5. The zones will be the same as those used for other entry products and charges.

### **End of Annex 4**

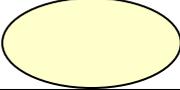
### ANNEX 5 – Revenue flows



The above two diagrams show the flow of revenue currently (“Existing Arrangements”) and as originally proposed (“SO release”) under CAP161. Note that there will be a separate consultation on residual charging and therefore the units of residual charging (i.e. £/kW or £/kWh) have yet to be consulted upon and decided.

**Supporting note for Revenue Flows diagram**

Key:

	A revenue fund e.g. BSUoS
	A party e.g. CUSC party

Dashed lines round an oval imply it may contract or expand.

A single line is a money flow. On the 'Existing arrangements' similar colours indicate relationship, on the revised arrangements red indicates a possible change.

A double line is an obligation, right or relationship; red is new or changed.

Dashed line / oval represents 'sum to'.

**Existing arrangements**

To trade parties must be a CUSC and BSC party (or allied to someone responsible for them in the BSC / CUSC). The CUSC parties have to pay charges in accordance with the methodology; these are TNUoS and Connection, which make up MAR. BSC parties pay and get paid in accordance with the BSC.

The charging methodologies also require parties to pay BSUoS charges, these are based on metered output. BSUoS represent the net costs of SO actions, including net cost of bids and offers, contracts, trades etc. Any SO incentive payment / receipt also flows through BSUoS.

BSC parties pay / get paid for bids and offers, the net difference flows through to BSUoS, representing the cost of balancing and securing the system. BSC parties also pay imbalance charges, with the net difference being redistributed through RCRC back to BSC parties. These two distinctly separate revenue flows are shown separate in the BSC by a dashed line.

**Generic short term changes**

The TNUoS methodology separates out to ensure that not only firm capacity holders pay for the residual and to ensure local charges are dealt with more effectively. This also recognises that as plant margins increase there will be a greater variance of load factors. As discussed at WG3 all parties should contribute to the residual element of TNUoS. Parties who hold firm access pay the locational charge – based on their firm access holding. All parties pay the local charge in accordance with the local changing arrangements. Connection charges are not expected to change.

A change to the basis of the residual charge from kW to kWh could result in a switch to the CUSC party being charged, noting TNUoS and BSUoS may be paid by different parties. This potential change is shown but is subject to industry consultation following WG3 discussions. Any change is only required where the charge is kWh based. A switch between CUSC parties may be the case for Interconnectors and CUSC 6.29 parties, although rules in the methodology could avoid any switch.

The MAR+ post vesting connection revenue will change if more parties connect, although this would happen eventually anyway. The difference between the total change in MAR+ and net revenue recovered through Local and Connection charges is recovered through the Residual. If parties switch from LT to ST access the amount to be collected through locational potentially reduces (assuming only exporting zones), a reduction in amount recovered through locational will increase the amount to be recovered through residual.

**SO release**

CUSC parties can purchase additional rights to use the system from NGET. NGET will collect additional revenue through receipts for SO release. The SO will only release access if the forecast cost is less than the income.

SO release will increase the cost of operating the system ( bid / offer costs, contract payments). The impact on BSUoS will also be affected by any incentive on NGET to release access. Noting the basic incentive on the SO to reduce balancing costs, the net revenue from SO release should be positive. However it could be negative if the System Operator's forecasts are lower than the actual costs.

It should be noted that under this proposal netting the revenues from SO Release in BSUoS will result in the overall split of BSUoS changing. The payment of the revised BSUoS revenue (BSUoS revenue without SO Release + additional payments due to SO Release) will become more weighted toward generation by the percentage revenue received from SO Release. For example, if SO Release doubled the cost of BSUoS, the split of BSUoS would be changed from 50:50 (G:D) currently to 25:75 (G:D) with SO release. This example assumes SO Release revenue matches the SO incurred costs of hosting, as discussed in the report the surplus from the pay as bid elements is also fed in to BSUoS.

The Working Group acknowledged that Party's liable for BSUoS were accepting the risk of the SO forecast being wrong, this may be positive or negative. Some Working Group members were particularly concerned with the risk associated with CLDTEC given the extended lead times. The Working Group considered that this additional risk justified the surplus from the pay as bid auctions being passed through BSUoS.

## ANNEX 6 – EXAMPLE METHODOLOGIES FOR SO RELEASE BIDS

The Working Group considered a number of methodologies for SO release. The differences between these are the initial objective function, ordering by price or maximising volume, then after the first pass whether the additional revenue should be used to subsidise unsuccessful bids. The examples discussed are presented below.

Consider the following scenario.

8 bids received:

A = 100MW at £30/MW hr - active on SSENWEX, SSEN-S, SCOTEX1 & SCOTEX

B = 50MW at £20/MW hr - active on SSENWEX, SSEN-S, SCOTEX1 & SCOTEX

C = 50MW at £20/MW hr - active on SSENWEX, SSEN-S, SCOTEX1 & SCOTEX

D = 150MW at £10/MW hr - active on SSEN-S, SCOTEX1 & SCOTEX

E = 75MW at £15/MW hr - active on KILSLOYEX, SCOTEX1 & SCOTEX

F = 50MW at £5/MW hr - active on SCOTEX1 & SCOTEX

G = 50MW at £20/MW hr - active on SCOTEX1 & SCOTEX

H = 50MW at £25/MW hr - active on SCOTEX1 & SCOTEX

From studies carried out the constraints having the potential to be active are: SSENWEX, SSEN-S, KILSLOYEX, SCOTEX1 and SCOTEX

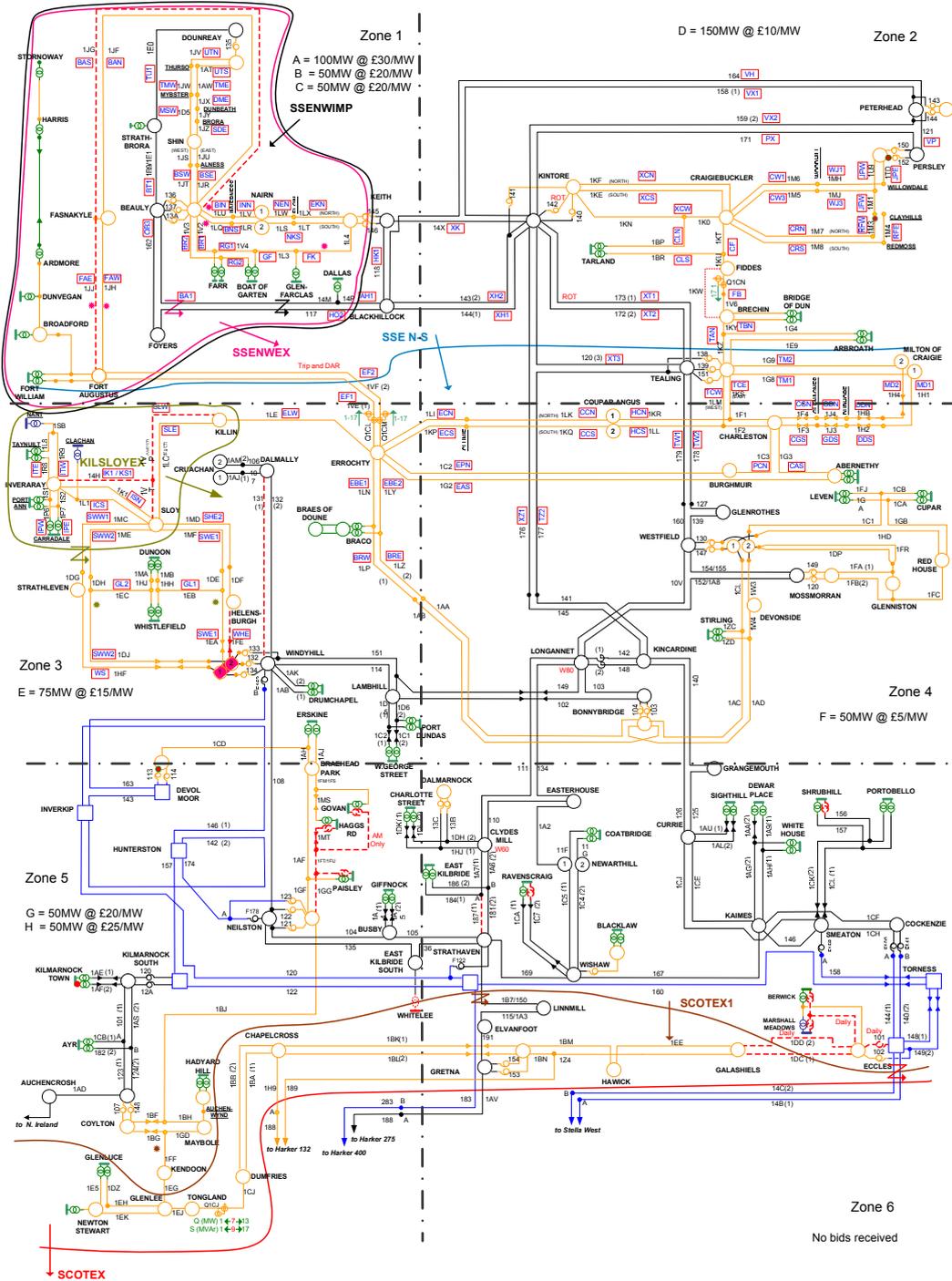
From expected system and market conditions, the forecast constraint limits, expected flow and forecast cost of releasing access are detailed below:

Constraint	Max Flow (constraint limit)	Mean forecast flow	Forecast cost of releasing access up to constraint limit	Forecast cost of releasing access above constraint limit
SSENWEX	400	300	100MW at £26.2/MW hr	200MW at £70.3/MW hr
SSEN-S	1700	1500	200MW at £9.5/MW hr	200MW at £19/MW hr
KILSLOYEX	270	200	70MW at £13.1/MW hr	70MW at £26.2/MW hr
SCOTEX 1	1750	1400	350MW at £7.7/MW hr	200MW at £19.0/MW hr
SCOTEX	1750	1400	350MW at £7.7/MW hr	200MW at £19.0/MW hr

Note: the access affects more than one constraint boundary and therefore the bid price has to cover the cost of access at the most expensive boundary. Also note that the cost of access at a boundary varies depending on the amount of access already granted (as shown in the last two columns of the table above). Therefore due to the interaction of the bids they must be assessed in order, one after the other i.e. price order, volume order etc.

As each bid is accepted it is put into the study model to ensure it does not effect any other constraints not already highlighted (i.e., thermal, voltage or stability constraints). For all the following examples it has been assumed this has been done and that the allocation of access maintains system security.

### Diagram of system being considered



### Original Assessment Methodology – Potential Methodology 1

As the bids are all competing for limited access and because the applications interact, the bids need to be assessed in a defined order. As this is an auction, the bids will be ranked in price order with highest bidder being assessed first.

The table below shows the Bids in price order on the left hand side and the available capacity to start with along the top row. In turn each bid is assessed and the result recorded on the table. The table also keeps a running total of the remain volume / price of access available on each boundary.

	Bid	Allocated	SSENWEX	SSE N-S	KILSLOYEX	SCOTEX 1	SCOTEX	Reason
	Base case assessment		1st 100MW at £26/MW hr next 200MW at £70.3/MW hr	1st 200MW at £9.5/MW hr next 200MW at £19/MW hr	1st 70MW at £13.1/MW hr next 70MW at £26.2/MW hr	1st 350MW at £7.7/MW hr next 200MW at £19.0/MW hr	1st 350MW at £7.7/MW hr next 200MW at £19.0/MW hr	
1st	Bid A, 100MW at £30/MW hr	100MW	0@26 200@70.3	100@9.5 200@19	n/a	250@7.7 200@19	250@7.7 200@19	Bid price above £26/MW hr, £9.5/MW hr & £7.7/MW hr
2nd	Bid H, 50MW at £25/MW hr	50MW	n/a	n/a	n/a	200@7.7 200@19	200@7.7 200@19	Bid price above £7.7/MW hr
3rd	Bid B, 50MW at £20/MW hr	50MW	0@26 200@70.3	100@9.5 200@19	n/a	200@7.7 200@19	200@7.7 200@19	Bid price is not above £70.3/MW hr
3rd	Bid C, 50MW at £20/MW hr	50MW	0@26 200@70.3	100@9.5 200@19	n/a	200@7.7 200@19	200@7.7 200@19	Bid price is not above £70.3/MW hr
3rd	Bid G, 50MW at £20/MW hr	50MW	n/a	n/a	n/a	150@7.7 200@19	150@7.7 200@19	Bid price above £7.7/MW hr
4th	Bid E, 75MW at £15/MW hr	70MW	n/a	n/a	0@13.1 70@26.2	80@7.7 200@19	80@7.7 200@19	Bid price above £7.7/MW hr & £13.1/MW hr but not greater than £26.2/MW hr
5th	Bid D, 150MW at £10/MW hr	80MW	n/a	20@9.5 200@19	n/a	0@7.7 200@19	0@7.7 200@19	Bid price above £9.5/MW hr & £7.7/MW hr but not greater than £19/MW hr
6th	Bid F, 50MW at £5/MW hr	50MW	n/a	20@9.5 200@19	n/a	0@7.7 200@19	0@7.7 200@19	Bid price is not above £9.5/MW hr

**Total volume of access allocated = 350MW**

Total revenue = (£30x100) + (£25 x 50) + (£20 x 50) + (£15 x 70) + (£10 x 80)  
= £7100/hr

Forecast over recovery = [(£30-£26) x100] + [(£25-£7.7)x 50] + [(£20-£7.7) x 50] + [(£15-£13.1)x70] + [(£10-£9.5) x 80]  
=400 + 865 + 615 + 133 + 40  
= £2053/hr

**Potential Methodology 2 (hybrid of methodology 1)**

Bids are ranked in price order and assessed as methodology 1 but the forecast over recovery is used to grant access to the unsuccessful bidders. The unsuccessful bidders are ranked in price order.

Forecast over recovery = £2053/hr

Unsuccessful bids:

B = 50MW at £20/MWhr - active on SSENWEX, SSEN-S, SCOTEX1 & SCOTEX

C = 50MW at £20/MWhr - active on SSENWEX, SSEN-S, SCOTEX1 & SCOTEX

E = 5MW outstanding at £15/MWhr - active on KILLSLOYEX, SCOTEX1 & SCOTEX

D = 70MW outstanding at £10/MWhr - active on SSEN-S, SCOTEX1 & SCOTEX

F = 50MW at £5/MWhr - active on SCOTEX1 & SCOTEX

Bid B & C affect the SSENWEX constraint but all access up to the limit has already been granted in the first round of assessment. To allocate further access requires a bid price at £70.3/MWhr.

Using the potential over recovery of £2053

$£70.3/\text{MWhr} - £20/\text{MWhr} = £50.3/\text{MWhr}$  of additional revenue needed to grant bid

$£2,053\text{hr} / £50.3/\text{MWhr} = 40.8$

= 40MW of access on the SSENWEX constraint.

As Bids B & C are of equal bid price both parties get 20MW.

**Total volume of allocated access** = 350MW + 40MW  
= 390MW.

**Total revenue** = £7100/hr + (£20/MWhr x 40MW)  
= £7900.

### Methodology 3 (hybrid of methodology 1)

As methodology 2 but rather than rank unsuccessful bids in price order, the forecast over recovery is used to allocated the greatest volume of access.

Unsuccessful bids:

B = 50MW at £20/MWhr – needs a bid price of £70.3/MWhr to gain access on the SSENWEX boundary. Price differential of £50.3/MWhr

C = 50MW at £20/MWhr - needs a bid price of £70.3/MWhr to gain access on the SSENWEX boundary. Price differential of £50.3/MWhr

E = 5MW outstanding at £15/MWhr - needs a bid price of £26.2/MWhr to gain access on the KILLSLOYEX boundary. Price differential of £11.2/MWhr

D = 70MW outstanding at £10/MWhr - needs a bid price of £19/MWhr to gain access on the SCOTEX1 & SCOTEX boundary. Price differential of £9/MWhr

F = 50MW at £5/MWhr - needs a bid price of £19.0/MWhr to gain access on the SCOTEX1 & SCOTEX boundary. Price differential of £14/MWhr

Forecast over recovery from initial allocation = £2053/hr

The greatest volume of access is going to be granted at the 'cheapest' boundary where the price differential between bid and required bid is the smallest.

1. Smallest price differential = Bid D  
70MW x £9/MWhr = £630/hr.

So granting 70MW to bid D leaves,  $\text{£}2053\text{hr} - \text{£}630/\text{hr} = \text{£}1423/\text{hr}$

**2.** Next smallest price differential = Bid E

$5\text{MW} \times \text{£}11.2/\text{MWhr} = \text{£}56/\text{hr}$

So granting 5MW to bid E leaves,  $\text{£}1423/\text{hr} - \text{£}56/\text{hr} = \text{£}1367/\text{hr}$

**3.** Next smallest price differential = Bid F

$50\text{MW} \times \text{£}14/\text{MWhr} = \text{£}700/\text{hr}$

So granting 50MW to bid F leaves,  $\text{£}1367/\text{hr} - \text{£}700/\text{hr} = \text{£}667/\text{hr}$

**4.** Next smallest price differential = Bid B & C

$\text{£}667/\text{hr} / \text{£}50.3/\text{MWhr} = 13.26\text{MW}$

= 6.5MW to both B & C.

**Total volume of allocated access** =  $350\text{MW} + 70\text{MW}(\text{bid D}) + 5\text{MW}(\text{bid E}) + 50\text{MW}(\text{bid F}) + 13\text{MW}(\text{between bids B\&C})$   
= **488MW.**

**Total revenue** =  $\text{£}7100/\text{hr} + (\text{£}10/\text{MWhr} \times 70\text{MW}) + (\text{£}15/\text{MWhr} \times 5\text{MW}) + (\text{£}5/\text{MWhr} \times 50\text{MW}) + (\text{£}20/\text{MWhr} \times 13\text{MW})$   
=  $\text{£}7100 + \text{£}700 + \text{£}75 + \text{£}250 + \text{£}260$   
= **£8385/hr**

### Potential Methodology 4

Rank bids in an order that will grant the greatest volume access. To achieve this, access on the 'cheapest' boundary is allocated first.

This leaves:

150MW at £19/MWhr on the SSEN-S,  
130MW at £19/MWhr available on the SCOTEX 1 & SCOTEX boundary,  
70MW at £26.2MWhr on the KILSLOYEX boundary  
200MW at £70.3/MWhr on the SSENWEX boundary

	Bid	Allocated	SCOTEX	SCOTEX1	SSE N-S	KILSLOYEX	SSENWE X	Reason
	base case assessment		350MW @ £7.7/MWhr 200MW @ £19.0/MWhr	350MW @ £7.7/MWhr 200MW @ £19.0/MWhr	200MW @ £9.5/MWhr 200MW @ £19/MWhr	70MW @ £13.1/MWh 70MW @ £26.2/MWhr	100MW @ £26/MWh 200MW @ £70.3/MWh	
1st	Bid F, 50MW at £5/MWhr	50MW	350MW@7.7 200MW@19	350MW@7.7 200MW@19				£5/MWh less than £7.7/MWh
2nd	Bid G, 50MW at £20/MWhr	50MW	300MW@7.7 200MW@19	300MW@7.7 200MW@19				Can accept full bid
3rd	Bid H, 50MW at £25/MWh	50MW	250MW@7.7 200MW@19	250MW@7.7 200MW@19				Can accept full bid
4th	Bid D, 150MW at £10/MWhr	150MW	100MW@7.7 200MW@19	100MW@7.7 200MW@19	50MW@9.5 200@19			Can accept full bid
5th	Bid E, 75MW at £15/MWhr	70MW	30MW@7.7 200MW@19	30MW@7.7 200MW@19		0MW@13.1 70MW@26.2		Limited by £26.2/MWh on KILSLOYEX
6th	Bid A, 100MW at £30/MWhr	100MW	0MW@7.7 130MW@19	0MW@7.7 130MW@19	0MW@9.5 150MW@19		0MW@26 200@70.3	Can accept full bid
7th	Bid B, 50MW at £20/MWhr	0MW	0MW@7.7 130MW@19	0MW@7.7 130MW@19	0MW@9.5 150MW@19		0MW@26 200@70.3	Meets SCOTEX and SSEN-S, but not SSENWEX
7th	Bid C, 50MW at £20/MWh	0MW	0MW@7.7 130MW@19	0MW@7.7 130MW@19	0MW@9.5 150MW@19		0MW@26 200@70.3	Meets SCOTEX and SSEN-S, but not SSENWEX

Total accepted bids:

A = 100MW at £30/MWh  
 D = 150MW at £10/MWh  
 E = 70MW at £15/MWh  
 G = 50MW at £20/MWh  
 H = 50MW at £25/MWh  
**Total = 420MW**

Total forecast cost =  $100*26+70*13.1+150*9.5+50*7.7+50*7.7$   
 $=2600+917+1425+385+385$   
 $=£5712/\text{MWh}$

Total revenue =  $100*30+150*10+70*15+50*20+50*25$   
 $=3000+1500+1050+1000+1250$   
 $=£7800/\text{h}$

Forecast over recovery =  $100*(30-26)+70*(15-13.1)+150*(10-9.5)+50(25-7.7)+50*(20-7.7)$   
 $=100*4+70*1.9+150*0.5+50*17.3+50*12.3$   
 $=400*133+75+865+615$   
 $=£2088/\text{MWh}$

### Potential Methodology 5

This is as methodology 4 but with the forecast over recovery used to subsidise the failed bids from the first round allocation in order to maximum the volume of delivery.

Bids left (bid prices not enough to cover constraint costs):

B = 50MW at £20/MWh - active on SSENWEX, SSEN-S, SCOTEX1 & SCOTEX.

Needs £70.3 for SSENWEX constraint, differential of £50.3

C = 50MW at £20/MWh - active on SSENWEX, SSEN-S, SCOTEX1 & SCOTEX.

Needs £70.3 for SSENWEX constraint, differential of £50.3

Part of E = 5MW at £15/MWh - active on KILSLOYEX, SCOTEX1 & SCOTEX

Needs £26.2 for KILSLOYEX constraint. , differential of £11.2

F = 50MW at £5/MWh - active on SCOTEX1 & SCOTEX

Needs £19 for SCOTEX constraint, differential of £14

Using the over recovery to grant additional access:

Lowest price differential is bid E.

$5\text{MW} \times £11.2/\text{MWh} = £56/\text{h}$

Leaves £2032/h of over recovery.

Next price differential is bid F

$50\text{MW} \times £14/\text{MWh} = £700/\text{MWh}$

Leaves £1332/MWh

$£1332/\text{h} / £50.3/\text{MWh} = 26\text{MW} (\text{r}0.45)$

Therefore bid B & C get 13MW of access each.

**Total volume of allocated access = 420MW + 5MW(remainder of bid E) + 50 (F bid) + 26MW (between bids B&C)**

**= 501MW.**

## Summary

Total volume of access allocated:

Methodology 1 = 350MW  
 Methodology 2 = 390MW  
 Methodology 3 = 488MW  
 Methodology 4 = 420MW  
 Methodology 5 = 501MW

With methodology 1 & 4 there is over recovery but only against a forecast cost. On the day there may not be any over recovery if costs were higher than expected. There is no doubt that if the objective function is to maximise access against possible revenue this will release more access than a function that minimises BSUoS. Maximising access removes a buffer so there is a greater risk that the net effect on BSUoS would be negative.

Methodology 4 & 5 is likely to discriminate against those stations that are located behind 'expensive' constraint boundaries as they are assessed after stations located behind 'lower cost' constraint boundaries.

Final outcome comparison for Methodologies 3 and 5

Bid	Methodology 3	Methodology 5
A	100	100
B	6.5	13
C	6.5	13
D	150	150
E	75	75
F	50	50
G	50	50
H	50	50

### Additional considerations

1. In practice the Bids have different effectiveness on each boundary and therefore this also needs to be factored in. For example, for methodology 1, if Bid A is only 50% effective on the boundary, giving 100MW at power station A would only result in an allocation of 50MW on the boundary, which would then have to be allocated to B.
2. Allocation of access at one point may adjust the volume, price and effectiveness for the following assessments. Each will need to be recalculated following the acceptance of a bid. For example, for methodology 1, if Bid A is accepted the system needs to be reconfigured to optimise flows or manage fault levels, this will result in more or less capacity being available over the rest of the system.
3. The forecast price would include a risk that may increase with the lower expected margin between forecast cost and revenue.

## ANNEX 7 – PRINCIPLES OF SO RELEASE METHODOLOGY

This note outlines the principle for an SO Release Methodology Statement.

### Auction Participation Requirements

All connected parties, or parties reasonably expected to be connected at the commencement of the SO release period, can apply for SO release, providing it would not take them over their LCN or CEC.

Parties are expected to place appropriate security for SO release. Failure to post required security will invalidate the bid placing the party in breach of the CUSC and be liable for Overrun charges. This may affect the SOs acceptance of bids in future auctions. The SO may take account of performance in release of SO release.

### Process

The SO will create a peak load flow study for the appropriate period considering:

- transmission infrastructure outages
- plant availability (from OC2 data)
- market conditions and historic data to predict plant running regimes
- wind forecasts
- codified TEC Sharing arrangements, CAP163 (if approved by Ofgem)

The study will be used to indicate the system constraints under the expected system conditions. The SO will need to assess the risk in the variability of the study to determine how accurately they can forecast the system conditions for that particular period. This will include consideration of;

- Firmness of the outage pattern
- Do the generators sitting behind a constraint boundary have a variable running regime or can they be considered to be base load?
- Is the volume of Sharing generators behind the constraint significant?
- Is the volume of intermittent generation behind the constraint significant?
- How sensitive are the constraints to a fault on the system?

This risk will be used in the costing of constraints along with current market conditions and bid/offer prices. Generation can affect more than one constraint boundary and therefore the bid price has to cover the cost of access at the most expensive boundary. The cost of access at a boundary can vary depending on the amount of access already granted. Due to the interaction of the bids they must be assessed in order, one after the other.

- The received bids will be ranked in price order (combination of bid price and buyback price), with the highest bid being assessed first.
- The prepared load flow study will be run with the inclusion of the 1<sup>st</sup> bid, Bid A, to check the affect of the generation on the system and constraints.
- From the study results an assessment will be made of the probability of Bid A exacerbating a constraint or number of constraints and a forecast of the potential increase in constraint costs will be produced.
- Bid A will be accepted if the bid price is equal to or greater than the forecast constraint cost and can be accommodated on the system without affecting system security.
- Bid A will be rejected if the bid price is lower than the forecast constraint cost.
- Assess the 2<sup>nd</sup> bid, Bid B
- Re-run the study with the inclusion of Bid B (and Bid A if accepted) to check the affect of the generation on the system and constraints.
- From the study results an assessment will be made of the probability of Bid B exacerbating a constraint or number of constraints and a forecast of the potential increase in constraint costs will be produced.

- Bid B will be accepted if the bid price is equal to or greater than the forecast constraint cost and can be accommodated on the system without affecting system security
- Bid B will be rejected if the bid price is lower than the forecast constraint cost.
- The assessment will continue until all bids or up to 10 bids have been assessed or until no further access can be granted.
  
- The SO will take account of security requirements when prioritising and assessing bids i.e. may accept a lower value bid if required for security, on the expectation that the overall cost may be more economic / secure.
- Bids received after the submission time may be considered, but in time-received order and at the discretion of National Grid.
- National Grid would not be obliged to accept bids & offers from SO Release users, but would do so in accordance with licence principles, security, efficiency, non-discriminatory practice and to facilitate effective competition.

**Contingency arrangements**

- Under default conditions, e.g. failure of email, IT systems or submission error, National Grid would process as many applications for the 5 week ahead SO Release product as possible but may cancel the 2 day ahead auctions if there is insufficient assessment time. All bids received before 4pm for the 5 week ahead auction would be treated in the normal manner, assessed by National Grid. All later bids would be assessed in time received order.
- If in processing applications there are potential errors, National Grid will use its reasonable discretion to contact users and resolve the issue. If, following these discussions, a bid is considered as incomplete, in National Grids reasonable discretion, it will be rejected. National Grid will immediately inform the affected party.

**ANNEX 8 – TIMESCALES DISCUSSED FOR 2 DAY AHEAD AUCTIONS**

The detailed process for non-Bank Holiday days (for Option 1 and Option 2) was proposed as:

**Option 1**

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Parties submit bids by 09:30h NG notifies parties of outcome of auction by 16:00h	Parties submit PNs by 11:00h in accordance with the grid code.	Access starts from 05:00h	Access finishes at 04:59h		
	Parties submit bids by 09:30h NG notifies parties of outcome of auction by 16:00h	Parties submit PNs by 11:00h in accordance with the grid code.	Access starts from 05:00h	Access finishes at 04:59h	
		Parties submit bids by 09:30h NG notifies parties of outcome of auction by 16:00h	Parties submit PNs by 11:00h in accordance with the grid code	Access starts from 05:00h	Access finishes at 04:59h

**Option 2**

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Parties submit bids by 16:00h	NG notifies Parties of outcome of auction by 08:00h Parties submit PNs by 11:00h in accordance with the grid code.	Access starts from 05:00h	Access finishes at 04:59h		
	Parties submit bids by 16:00h	NG notifies Parties of outcome of auction by 08:00h Parties submit PNs by 11:00h in accordance with the grid code.	Access starts from 05:00h	Access finishes at 04:59h	
		Parties submit bids by 16:00h	NG notifies Parties of outcome of auction by 08:00h Parties submit PNs by 11:00h in accordance with the grid code.	Access starts from 05:00h	Access finishes at 04:59h

The process around Bank Holidays (for Option 1 and Option 2) would be:

Option 1

Day 1	Day 2	Day 3	Day 4 (Bank Holiday)	Day 5	Day 6	Day 7	Day 8
Parties submit bids by 09:30h for access starting on Day 3.  NG notifies parties of outcome of auction by 16:00h	Parties submit PNs by 11:00h in accordance with the grid code.	Access starts from 05:00h	Access finishes at 04:59h				
	Parties submit bids by 09:30h for access starting on day 4.  NG notifies parties of outcome of auction by 16:00h	Parties submit PNs by 11:00h in accordance with the grid code.	Access starts from 05:00h	Access finishes at 04:59h			
		Parties submit bids by 09:30h for access starting on <b>day 5 through to day 7.</b>  NG notifies parties of outcome of auction by 16:00h	Parties submit PNs by 11:00h in accordance with the grid code.	<b>Access starts from 05:00h</b>		<b>Access finishes at 04:59h</b>	
			<b>No auction</b>				
				Parties submit bids by 09:30h for access starting on day 7.  NG notifies parties of outcome of auction by 16:00h	Parties submit PNs by 11:00h in accordance with the grid code.	Access starts from 05:00h	Access finishes at 04:59h

## Option 2

Day 1	Day 2	Day 3	Day 4 (Bank Holiday)	Day 5	Day 6	Day 7	Day 8
Parties submit bids by 16:00h	NG notifies parties of outcome of auction by 08:00h Parties submit PNs by 11:00h in accordance with the grid code.	Access starts from 05:00h	Access finishes at 04:59h				
	Parties submit bids by 16:00h <b>day 5 through to day 6.</b>	NG notifies parties of outcome of auction by 08:00h Parties submit PNs by 11:00h in accordance with the grid code	Access starts from 05:00h	Access finishes at 04:59h			
		Parties submit bids by 16:00h	Parties submit PNs by 11:00h in accordance with the grid code.	<b>Access starts from 05:00h</b>		<b>Access finishes at 04:59h</b>	
			<b>No auction</b>				
				Parties submit bids by 16:00h for access starting on day 7.	NG notifies parties of outcome of auction by 08:00h Parties submit PNs by 11:00h in accordance with the grid code.	Access starts from 05:00h	Access finishes at 04:59h

# ANNEX 9 – 2 DAY AHEAD ILLUSTRATIVE SETTLEMENT PROCESS

SO Release Product: 2DA

