

# **Conclusions Report**

**GB ECM-18**

**Locations BSUoS Volume 2**

**Non Confidential Consultation Responses**

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20<sup>th</sup> April 2009

Dear Rob,

## **GB ECM-18 Locational BSUoS Charging Methodology**

The REA is pleased to be able to offer its comments on your pre-consultation on CAP 166. As you are aware our members work on all types of renewable power and heat projects in all parts of Great Britain and are connected at both transmission and distribution levels.

### **General Points**

The REA has been consistently in favour of cost-reflective charging for transmission. There are sound arguments in favour of charging the short run costs of transmission on a basis that varies by location. However there are also arguments against. These arguments are similar to those on locational transmission losses.

The fundamental arguments for and against locational charging for short run costs don't change according to whether the transmission system in a particular area needs reinforcing or not. There may be a pragmatic reason for doing this if constraint costs are unusually high, but we are not convinced.

Charging a different BSUoS amount to only generation on one side of a derogated boundary seems unjustified. One can make a pragmatic case that generation is likely to be more sensitive to varying charges than demand. One can also make a case that generation in Scotland has benefitted from being given access to demand in England and Wales beyond the physical capacity of the transmission network to handle the associated flows. The same could be said of the demand in England and Wales, which now has access to more generation in Scotland than before.

Charging locationally for generation but not for demand distorts the treatment of embedded generation.

There are also pragmatic reasons for not going ahead with this proposal.

CAP 171 has now been proposed which, if implemented, would result in effectively locationally varying BSUoS charges for all of Great Britain (albeit only for generators). It has been rejected by the CUSC panel but it is not clear that the concept of effective universal locational BSUoS charges that it contains will not be resurrected, either via an alternative CUSC proposal or a self standing new charging modification proposal.

Transmission losses allocation that varies with location is being considered within the Balancing and Settlement Code on a national basis. Locational BSUoS charges should also be considered on a national basis, not in the context of applying to generation only and in one particular area.

There is a sentence in section 4.8 on information provision that we do not follow.

“The rationale behind an ex post methodology is that generating BMU will be better informed of their costs of generation and so be able to make economically informed decisions in relation to their generation strategies.”

We would have thought that this would be better facilitated by an ex ante methodology.

We now address the specific questions that you have posed.

- **What impact do you feel these proposals will make on constraint costs?**

There are actually two questions here – the effect on constraint costs and how those costs are collected from different BSUoS payers.

Clearly these proposals would result in a higher proportion of BSUoS charges being levied on generators in Scotland. Whether the total costs will be reduced depends on whether generators' change their behaviour, the probability of which we do not feel able to speculate on.

- **Do you agree with the proposal in that the Locational BSUoS element is only applied to generation?**

No, if locational BSUoS is to be introduced it should be applied to both generation and demand on a national basis.

- **Do you agree that this proposal should be implemented without addressing the method of targeting distributed generation?**

We do not believe that the proposal should be implemented as currently framed. If the charges were to apply to demand as well as generation this would automatically provide signals that varied with location for distributed generation.

- **Do you agree the timing for Locational BSUoS is appropriate given the imminent proposed changes from Transmission Access Reform?**

No, this is a highly significant change and should be debated in the context of the TAR.

- **What do you see as to the benefits and/or consequences of this proposed change (e.g. in respect of new generation connecting)?**

As drafted the proposal would only have effect whilst there is a derogation in force and therefore we would not expect it to have any effect on the locations chosen for new generators to site. An enduring locationally varying charge out of BSUoS might of course have some effect on new generator location signals at the margin.

- **Do you agree with National Grid's assessment of this proposal against our relevant licence objectives?**

If locationally varying BSUoS charges are more cost reflective than uniform charges then this would be in accordance with the relevant licence objectives. But we cannot see how it is in accordance with the licence conditions to facilitate them better for one class of user in one part of the country only.

- **Do you agree with the methodology to determine level of Non Compliance on a derogated boundary, if not what improvements could be made?**

Until the SQSS review has been completed we do not feel that there is a satisfactory methodology to determine compliance or non-compliance.

- **Do you believe the costs of replacing sterilised headroom should be allocated in the Locational BSUoS charge?**

We think that if a proposal to implement locationally varying BSUoS universally is brought forward the question of sterilising headroom needs to be carefully thought through.

For example if, in an export constraint zone all units want to generate at full output but have to reduce it to part load because of the constrain, then no headroom from generators within this area is lost due to the constraint as there was none initially. Obviously there may have been an effect on headroom on the other side of the constraint.

**In summary** we do not think that the proposed change to the BSUoS charging methodology should be implemented. If locationally varying BSUoS charges have merit, they should be implemented across the whole of GB.

And if universal BSUoS charges are to be considered, then this should be done in the context of the enduring arrangements.

Please let us know if you would like to discuss any aspects of this letter further.

Yours sincerely,

Gaynor Hartnell,  
Director of Policy, REA.

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20 April 2009

Dear Rob,

**Response to pre-consultation on GB ECM-18**  
**Locational BSUoS Charging Methodology**

Thank you for the opportunity to respond to this pre-consultation document. This response is submitted on behalf of ScottishPower Energy Management Ltd, ScottishPower Generation Ltd and ScottishPower Renewable Energy Ltd. Should you decide to proceed further in the light of the responses at this stage we look forward to the opportunity to respond to your forthcoming consultation document.

This proposal which seeks to further increase Scottish generators' costs by £50 million to £100 million per annum undermines the fundamental principles of a single GB market and adversely impacts investment in thermal and renewable generation in Scotland - including our recent investments of over £200 million in environmental improvements at Longannet and over £400 million in onshore wind generation in the south of Scotland.

**1. PRE-CONSULTATION RESPONSE**

ScottishPower does not believe that the proposed modification will better meet the relevant objectives for the Use of System Charging Methodology and therefore believes that the modification should not be implemented for the following reasons:

- **A defect in the current arrangements has not been adequately demonstrated**
- **The proposal will weaken market signals for greater infrastructure investment**
- **The proposal is unlikely to reduce constraint costs**
- **Competition for the provision of balancing services in Scotland is increasing and this is the route that should be used to reduce constraint costs**
- **Unilateral replacement of existing charging arrangements increases regulatory risk and will deter future investment**
- **The proposed amendment discriminates against Scottish generators**
- **The proposal cuts across broader UK energy policy objectives – in particular the ambitious targets to achieve 15% of energy from renewables by 2020 and the UK's aspirations for clean coal and Carbon Capture & Storage (CCS)**
- **The proposal undermines the fundamental principles of a single GB market under BETTA and removes the level playing field for competition in the generation market**
- **The proposed methodology for calculating constraint costs for locational BSUoS and the proposed TNUoS rebate are flawed**
- **Implementation of the proposed amendment would be unlawful**

ScottishPower has consistently worked with National Grid on a supportive, proactive basis in the competitive market to resolve transmission system constraint issues and will continue to do so. The proposed modification will reduce the incentive on parties to participate in the market for commercial balancing services in Scotland to the detriment of the electricity market as a whole.

ScottishPower has released surplus Transmission Entry Capacity (TEC) at both of its coal-fuelled generating stations and one of its renewable sites in the last two years to allow this capacity to be released to other generation users.

### **Demonstration of the Perceived Issue or Defect in the Charging Methodologies**

ScottishPower does not accept that National Grid has adequately demonstrated that there is a defect in the current arrangements and that the proposed amendment would better meet the applicable objectives. By itself, the cost of resolving constraints does not constitute a defect. The constraint costs highlighted in the consultation have arisen in the context of competitive procurement of balancing services and therefore reflect the economic cost of resolving constraints and signal the requirement for investment in infrastructure.

The quantum of constraints costs for Scotland to England transfers are being quoted as proof of market failure. However, as Ofgem's own analysis indicates, the forecast unit cost of constraints in Scotland for 2008/09 (£47.5/MWh) are lower than the average cost of actions to resolve constraints across Great Britain (£47.8/MWh). Furthermore, these unit costs are lower than historic costs of using the BM (the average difference between offer and bid acceptances in 2008/09 was around £120/MWh).

This appears to suggest the competitive market for managing constraint costs is working effectively. Competition for balancing services is increasing in Scotland with more parties offering a wider range of services to National Grid and this is the route that should be used to reduce constraint costs.

In the absence of a defect, there is no requirement for the proposed amendment.

### **Investment in Transmission Infrastructure**

The inadequacy of the transmission infrastructure on the Cheviot boundary has not arisen as a result of the actions of generators in Scotland whether connected before or after the commencement of the BETTA arrangements in April 2005. National Grid has obligations to ensure that adequate investment is made in the GB transmission system. The existing level of constraints on the Cheviot boundary is evidence that the required investment has not been made to date and National Grid's own projections show this boundary deficient in transmission capacity until 2015 and beyond (Appendix 2 of pre-consultation document).

In Section 3 of the pre-consultation document National Grid admits that the failure to invest in the transmission system since BETTA has resulted in a shortfall in the required level of transmission capacity and that this shortfall is forecast to grow next year. While the Transmission Price Control Review and the Transmission Investment for Renewable Generation processes have resulted in increased investment in the transmission system this has not happened early enough or to a sufficient extent. Scottish generators should not be singled out for increased charges as a result of this shortfall in transmission investment.

Constraint costs provide an important signal and financial justification to the system operator and transmission owners of the need for further investment in the transmission system. If it is cheaper to invest in the network rather than incur constraint costs then the investment is justified. There is a real risk however that the constraint costs charged directly back to some generators under this proposal may not be considered on the same basis as other constraint costs when making this comparison. This would result in a weakening of the incentive on

transmission owners and operators to invest in transmission infrastructure and the persistence of constraints for longer than necessary to the detriment of consumers and generators.

### **Inconsistency with UK energy policy objectives**

The proposal will increase costs for existing and potential renewable generators in Scotland discouraging in particular onshore wind generation which is a key, and relatively cost effective, component of the UK's response to its 2020 environmental targets.

The proposal will also discourage investment in clean coal technology and carbon capture and storage (CCS) in Scotland. Scottish coal plant is unique in its location close to the North Sea oil and gas infrastructure, which has the potential to be used for carbon transportation and storage, and can demonstrate the feasibility of retro-fitting CCS technology to existing generation plant.

### **Facilitation of Relevant Objectives**

Section 5 of the pre-consultation document purports to explain why the proposed modification would better facilitate achievement of the relevant objectives for the Use of System Charging Methodology. However, the reasons stated do not bear serious examination. Indeed, the proposed amendment would appear to be calculated (a) to promote or at least to facilitate inefficiency on the part of National Grid and (b) to distort effective competition in the generation market for the reasons more fully set out below.

### **Discrimination**

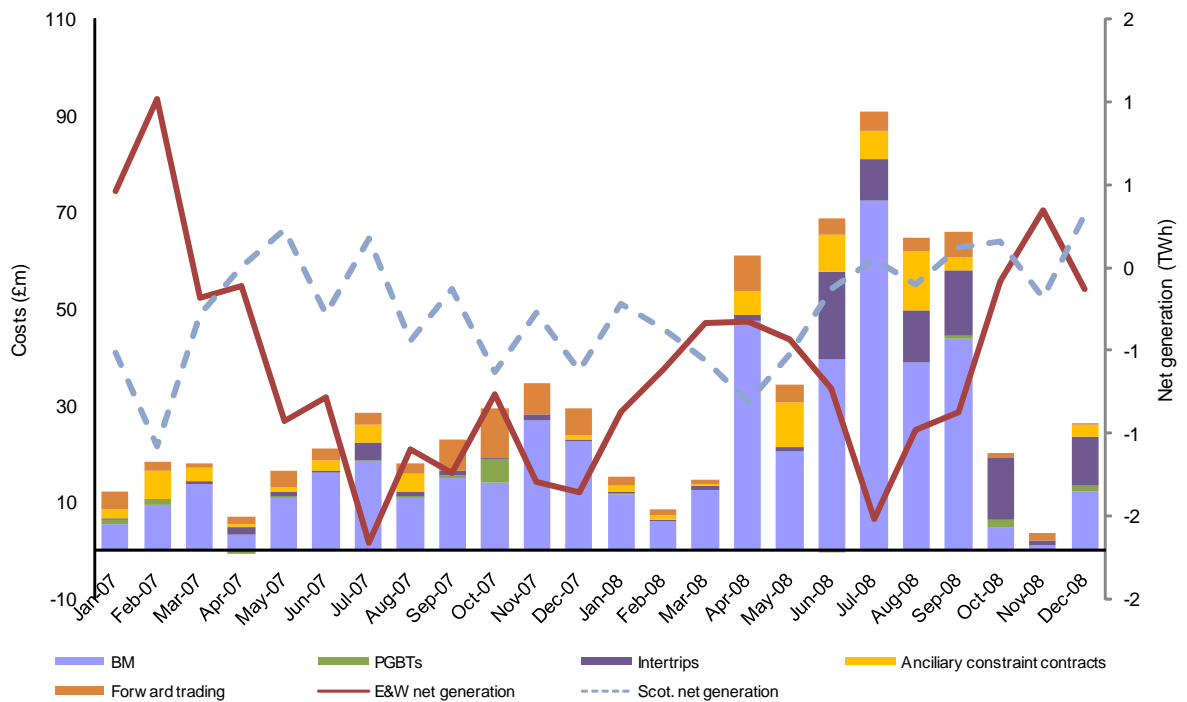
This proposal represents a thinly-veiled discriminatory attack on generation plant in Scotland. The Cheviot boundary between Scotland and England is currently the only derogated non-compliant transmission boundary on the GB system. Generators in Scotland pay the highest Transmission Use of System charges in GB in order to secure firm access to the GB Transmission System. Where there has been insufficient investment in transmission infrastructure which also compromises NGET's ability to fulfil its commitments to provide this firm access, National Grid as GBSO can (and does) resort to alternative commercial arrangements on a competitive basis with generators across the GB electricity market. This proposal attempts to target the costs arising from under-investment back on those who suffer from being unable to access the wider electricity market.

Had the investment been made in transmission infrastructure on the Cheviot boundary, as it should have been, then the costs of this investment would have been included in the residual TNUoS charge to be recovered from all GB suppliers and generators. This proposal discriminates against Scottish generators by seeking to charge 100% of these costs to them.

Constraints at transmission boundaries arise from the power flows at those boundaries which result from the net effect of generation and demand on both sides of the boundary as well as the actions of National Grid. It is erroneous to propose an amendment which only considers the generation element of the flows on one side of the boundary. In order to accurately reflect the impact of parties' actions upon a transmission boundary, it would be necessary to consider the net effect of both generation and demand. Even on its own terms, this modification therefore fails to reflect accurately the costs arising from a party's actions and therefore fails to meet the relevant objective on cost reflectivity.

Figure 1 shows that increases in balancing costs coincide with marked falls in net generation (i.e. net of demand) in England and Wales as well as the timing of transmission outages, rather than simply the actions of Scottish generators. This proposal is discriminatory as it fails to properly account for the key drivers of constraint costs, including changes in England and Wales generation and demand, and the fact that changes in Scottish generation in part reflect the impact of these other changes on the requirements to meet system demand.

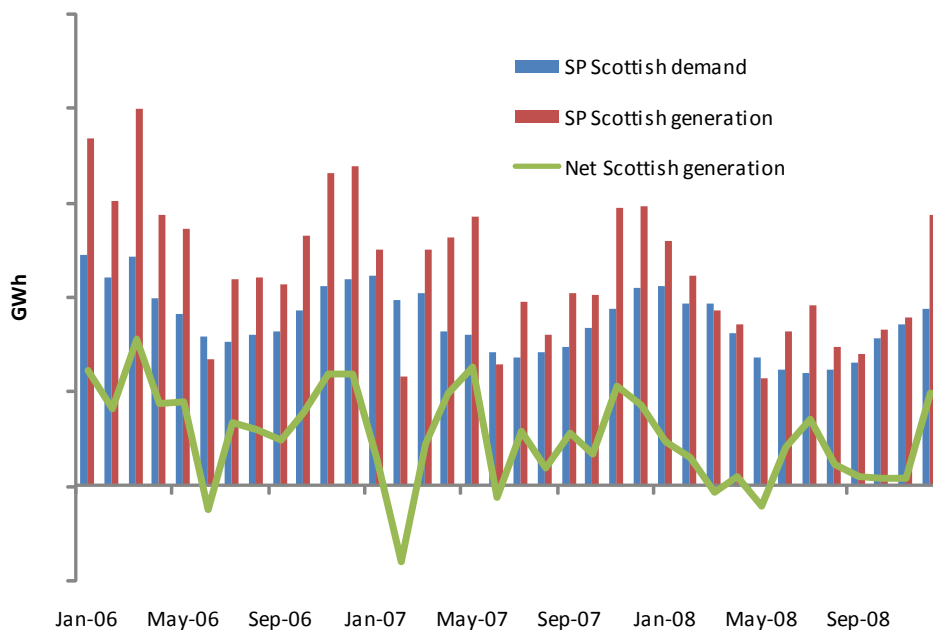
**Figure 1 Balancing costs and drivers**



Source: BMRA database, National Grid and Oxera analysis

Figure 2 shows that the majority of ScottishPower’s Scottish generation can be matched to its Scottish demand. Furthermore, it shows that the changes in ScottishPower’s net Scottish generation are similar to that for Scotland as a whole, which as outlined above reflects system requirements in response to changes in generation and demand in England and Wales.

**Figure 2 Location of Scottish Power generation and demand**



Source: ScottishPower

The proposal is also discriminatory in that it fails to recognise that in periods of export constraints from Scotland into England and Wales Scottish generation plant is sterilised in the provision of competitive offer prices to National Grid. Scotland has a significant hydro and pump storage capability which can provide competitive short term response. The loss of this opportunity reduces profit for Scottish generators, increases profit for England & Wales generators and also increases balancing services costs.

**GB Competition**

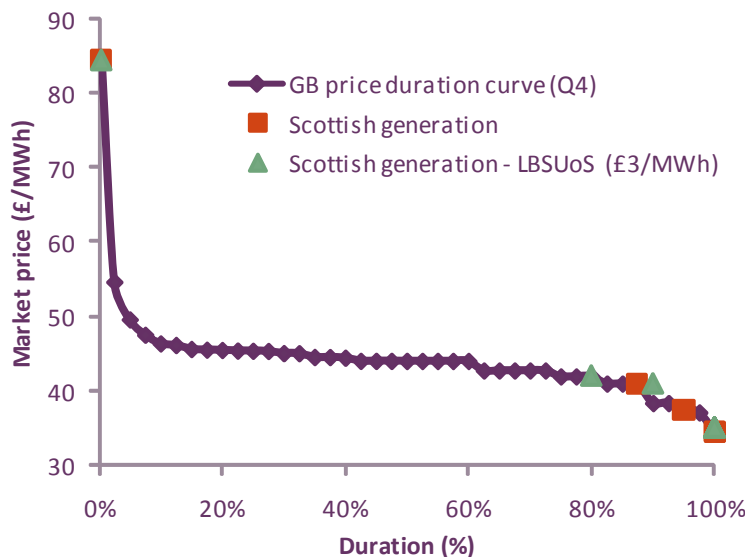
The proposed change to the charging methodology for BSUoS would subsidise England and Wales generators and further increase Scottish generators’ costs by £50 million to £100 million per annum. The proposal would hence lead to a direct transfer of balancing costs from GB suppliers and England and Wales generators to Scottish generators, who would face lower profitability and reduced incentives for investment in the generation sector.

In addition National Grid are attempting to severely restrict Scottish generators’ ability to provide commercial intertripping services at Scottish thermal stations. These proposals undermine the fundamental principles of a single GB market under BETTA and with it investor confidence putting at risk future investment in Scotland’s thermal and renewable energy sectors.

The targeting of costs onto one sector of the electricity generation market will seriously distort competition. National Grid asserts that an efficient economic signal would change generators’ behaviour and clear the market in a manner that reduces constraints. However, the proposed charging structure is unlikely to lead to different operating patterns during times of constraint.

First, a locational price signal is inappropriate given the large volumes of inflexible nuclear plant and renewables generation in Scotland. Even if an increase in locational BSUoS was known in advance, it would be unlikely to significantly alter the merit order of plant and thereby change their running patterns. Figure 3 shows that the plant running baseload (which represents the majority of capacity) would be likely to continue to do so with an additional BSUoS charge.

**Figure 3 Illustrative Q4 price duration curve with certain BSUoS charges**



Source: Oxera

Note: Red squares represent the relative position and running pattern of Scottish generation among other plant with no locational BSUoS, and green triangles represent changes with a £3/MWh BSUoS increase for Scottish generators. Prices include short run marginal costs and an increment above this which increases with capacity tightness.

Second, increases in locational BSUoS would, in fact, not be known in advance as they would depend on the operating decisions of other generators. The presence of large volumes of intermittent renewable generation in Scotland will make their contribution to locational BSUoS charges inherently unpredictable. Therefore given that changes in output from intermittent renewables or a reduction in nuclear output are uncertain, the ability of the locational BSUoS charge to signal the need for reduced plant running would be considerably weakened.

The proposed charging would also provide an inappropriate signal to flexible plant. Coal and gas plant are likely to be unaffected for the majority of the time, when prices are such that they are sufficiently in-merit or out-of-merit. In the limited situations where the running decision is marginal, Figure 4 highlights that a locational BSUoS charge would be unlikely to alter this decision because any locational signal would depend on the availability of intermittent generation as well as the decisions made by other flexible plant.

Given that the best outcome for any generator will be for it to run while its competitors do not, it is likely that the decision to continue to run will be the preferred or 'dominant' strategy.

**Figure 4 Operating strategies with uncertain BSUoS charges**

		Non-fossil generators	
		Continue running	Don't run
Fossil generator	Continue running	fossil: 3-3 = 0 non-fossil: 40-3 = 37	fossil: 3-1 = 2 non-fossil: 0
	Don't run	fossil: 0 non-fossil: 40-1 = 39	fossil: 0 non-fossil: 0

Note: The shaded actions show each generator's dominant strategy – that is actions that are preferred regardless of the behaviour of other plant. The spread available to fossil plant is assumed to be £3/MWh and the contribution to fixed costs from low marginal cost non-fossil plant is taken as £40/MWh. BSUoS costs are assumed to be £1/MWh when a fossil generator or combination of non-fossil generators reduces output. Otherwise, BSUoS costs are £3/MWh when all plant runs.

Source: Oxera

Potential increases in running costs due to locational BSUoS will not influence renewable generators, since these plants would lose ROC income by reducing their output. Equally, locational BSUoS charges would not be expected to influence inflexible generators who face high costs to change output at short notice.

For the reasons set out above, the System Operator is unlikely to be able to provide sufficient notice and sufficient certainty of costs to incentivise generators to reduce their output and face certain loss of profit.

The proposals are also likely to distort competition in the BM, as the charging mechanism seeks to target the costs of replacing constrained Scottish generation with plant in England & Wales thus allowing those generators in England and Wales to profit from the constrained boundary while passing the cost to Scottish generators.

This would provide an incentive for England & Wales generators to offer more plant into the BM knowing that demand for offers by National Grid will be higher. As offer prices are typically higher than prices in the forward market, reflecting the risk of not being called to run and the increased operating demands on plant equipment, this would be likely to increase the overall costs of meeting UK energy demand.

This market distortion would be exacerbated by any attempt to signal the incidence of constraints in advance which would act as a signal to generators in England and Wales to increase offer prices in the BM to the detriment of Scottish generators.

### **Regulatory Uncertainty**

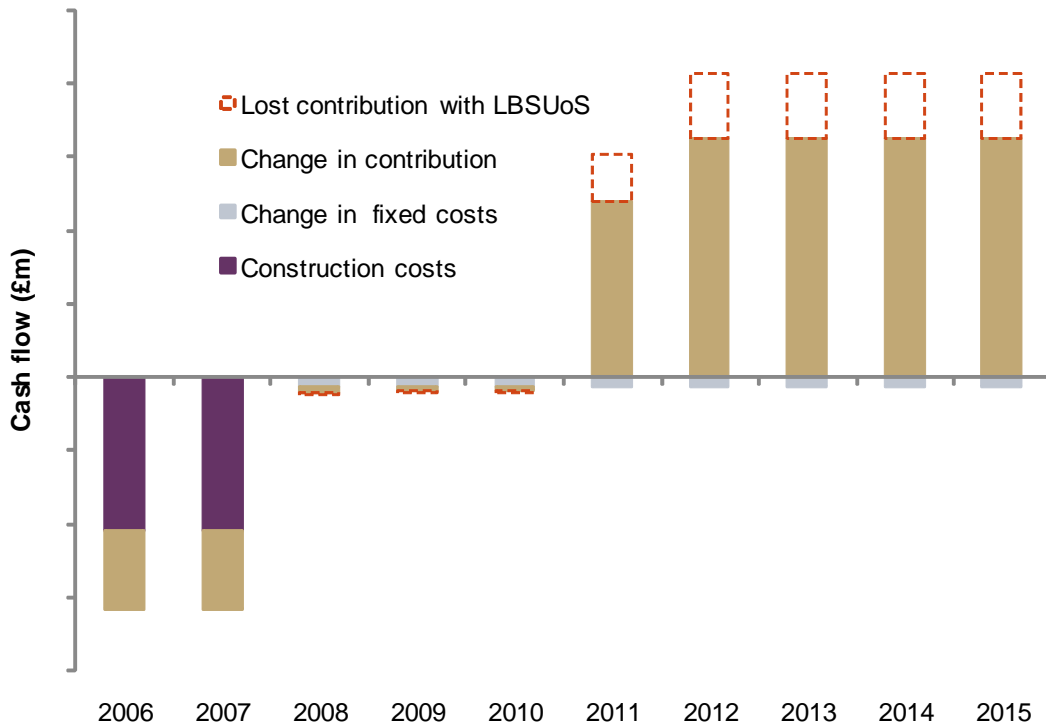
NGET's attempt to undertake such fundamental change to the Charging Methodology at such short notice and in the absence of adequate substantive consultation with industry (including consultation within the Charging Issues Steering Group or Transmission Charging Methodology Forum) creates substantial uncertainty as to the procurement of balancing services in the GB electricity market. If the Authority is prepared to allow such unilateral changes to be made to the Charging Methodology, future investors will be concerned that NGET will be permitted to intervene in future markets to adjust market prices and this will act as a deterrent to investment due to the impact on returns. If the necessary investment required in generation in the UK does not materialise, this will compromise security of supply.

ScottishPower has recently invested over £200 million in environmental improvements at Longannet on the basis of being able to run the station to meet customer demand in Scotland and also in England & Wales. These proposals would undermine this investment by effectively charging back to ScottishPower the compensation it would have received when unable to meet customer demand as a result of a shortage of interconnector capacity. Indeed, further proposals being considered by Ofgem and National Grid in relation to the application of zonal transmission losses and removal of enduring capacity rights at our generation stations have the potential to exacerbate the economic disadvantage to Scotland.

As an illustration of the impact of the uncertainty introduced by this proposal, Figure 5 shows the expected impact on ScottishPower's recent investment in FGD associated with opting into the Large Combustion Plant Directive. The impact of regulatory uncertainty on FGD investments is particularly relevant as these have been undertaken since the introduction of BETTA, under which generators were given reason to expect firm access rights in exchange for TNUoS charges and to be compensated for any constraining actions taken by the GBSO.

Figure 5 shows that the profile of expected incremental cash flows would be materially altered under this proposal. For example, contributions to fixed costs are reduced during the extended running period from 2011/12 to 2015. The estimated net impact of this proposal on the FGD business case would be a reduction in the internal rate of return of 4.5% or around a £95 million reduction in the net present value of the project.

**Figure 5 Lost contribution on FGD investment from locational BSUoS**



Source: ScottishPower and Oxera calculations

Note: Impact from locational BSUoS includes reduced output by 5% as well as additional marginal costs of £3/MWh.

The above analysis highlights the potential for retrospective regulatory charges to have a material adverse impact on investment decisions, including generation investments. The application of these post-event to existing investment decisions increases regulatory uncertainty for any further investments. Assuming the same level of regulatory uncertainty as indicated above for FGD (i.e. the impact of this proposal on capital costs and reduced contribution), this could imply an increase in the levelised costs of a CCGT of up to 17%.

### Process

In providing this response, ScottishPower notes the undertaking given by National Grid in its pre-consultation paper that it will issue a consultation paper which takes due account of responses received by 20 April 2009. Should NGET wish to proceed further with this proposal in the light of the responses at the pre-consultation stage, we would expect to take full advantage of the valuable opportunity which that further consultation will provide.

Nonetheless, ScottishPower does not accept that this charging modification merits the truncated consultation process which has been adopted. National Grid and Ofgem have been aware of the actual constraint costs during the Cheviot outage period over the summer of 2008 and presented forecasts of anticipated costs for 2009/10 at the Operational Forum meetings throughout 2008.

Against that context, it would be particularly inappropriate for the industry to be asked to consider such a fundamental change in a severely restricted and inadequate timescale. The absence of any detailed consultation within the Charging Issues Steering Group or Transmission Charging Methodology Forum in advance of the pre-consultation has removed the possibility for alternative (more proportionate) proposals to be put forward to address the

defects alleged in the charging modification (which we believe National Grid have failed to detail or indeed substantiate). It is essential that these shortcomings are addressed and other alternatives considered in the forthcoming consultation document.

This proposal has the potential to profoundly impact investment in generation and network infrastructure and should not be rushed through in a timescale which does not allow due consideration of these impacts.

The urgency of the timetable for GB ECM-18 is unprecedented given the potential impact of the proposed modification upon generators in Scotland. This contrasts with the timetable recently set for CAP168 – Under-use and reallocation of TEC – which is also being treated as an urgent amendment proposal but allows over 10 weeks from the proposal being raised to submission of the final report to the Authority.

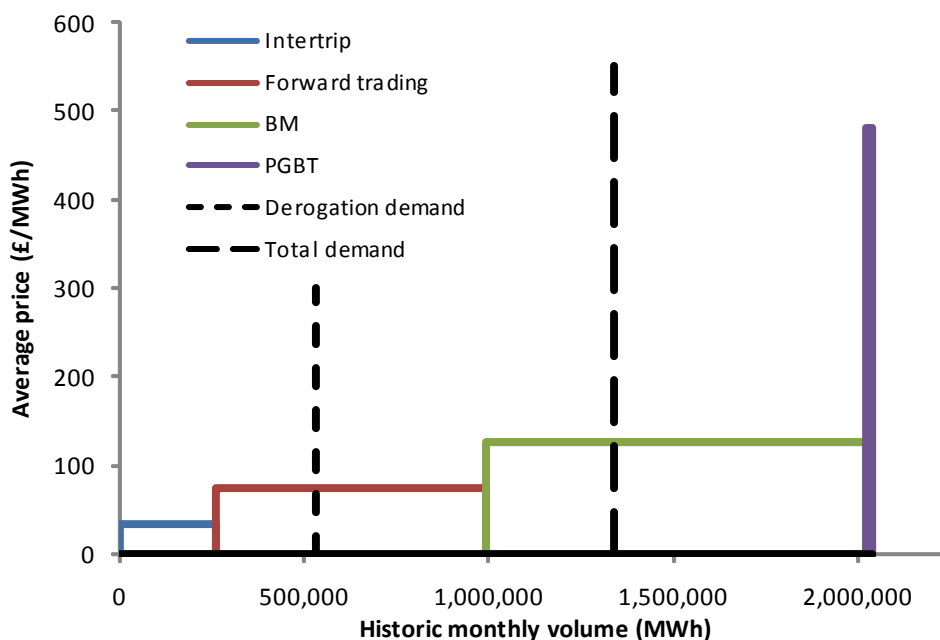
### Calculation of Constraint Costs

The proposed methodology for calculating the cost of resolving constraints for locational BSUoS is fundamentally flawed. In particular, including replacement offers in the cost of resolution includes the “profit” element obtained by replacement generation in England and Wales and has a re-distributional effect on electricity market participants.

In determining the constraint costs to be assigned to the non-compliance of the transmission boundary, there has been no justification of why the most expensive balancing actions should be allocated to the derogated boundary. As the derogation, and potential non-compliance are known well in advance the System Operator should be able to take long-term actions to mitigate the effect of constraints on the most economic and efficient manner. The most expensive actions are more likely to have been taken at short notice in response to much shorter-term issues on the transmission system and therefore it would not be appropriate to allocate these costs against the derogated boundary.

Figure 6 shows that anticipation of the need for action during upgrade work as part of the derogation could potentially draw on lower-cost actions than those in the BM or PGBTs.

**Figure 6 Potential balancing actions and prices (April 08 to Feb 09)**



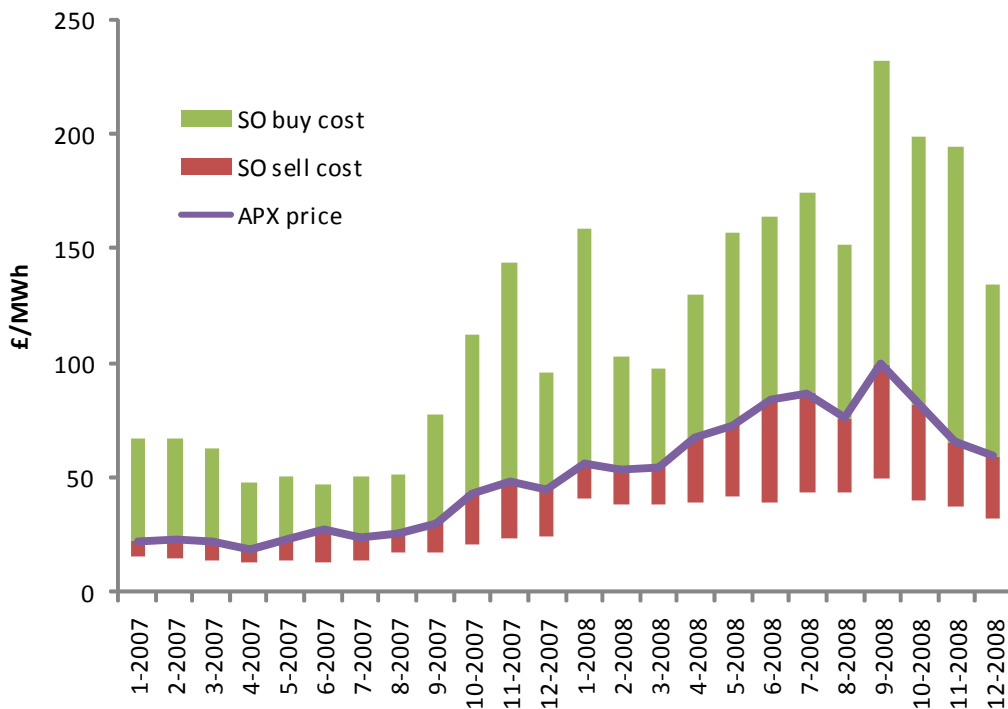
Note: Average prices are from April 08 to Feb 09 in line with available intertrip data from National Grid. Volumes are based on historic data, except forward trading for which 50% of monthly APX volumes are shown for illustration. Forward trading volumes here could also capture volumes within ancillary constraint contracts. Illustrative derogated demand is equal to the increase in monthly BM and equivalent intertrip actions from April to September 2008 compared to the monthly average between January 2007 and March 2008.

Source: BMRA database, Argus, National Grid and Oxera calculations

On this basis, it is also clear that given that the use of the BM to solve constraints is not necessarily a requirement, it is not appropriate to include the costs of offer acceptances in England & Wales in the costs to be targeted back to Scottish generators.

Figure 7 compares the bid offer spread over 2007 and 2008 to the APX power exchange price and demonstrates the high proportion of costs arising from offer acceptances. At times of constraints on the Cheviot boundary these offer acceptances are from England & Wales generators.

**Figure 7 Decomposition of BM costs**



Source: BMRA database, Argus, and Oxera analysis

ScottishPower disagrees with the inclusion of the cost of replacing required generation margin in the cost of resolving constraints. There is no mandatory requirement upon users under the CUSC to provide generation margin to the System Operator. NGET is able to procure the provision of generation margin to provide security of supply through commercial balancing services contracts. Where the transmission system capability is insufficient to allow utilisation of available plant margin behind a constrained boundary, then NGET should procure the required margin through commercial services agreements and the costs of maintaining security of supply throughout the GB market should be charged to that market as a whole.

The methodology for calculating the Meter Adjusted MW element of the constraint volume does not explain how the volume to be included for PN Capping contracts will be calculated. If the relevant volume is to be included in the negotiation of the commercial services contract then this

is likely to increase the price tendered for provision of the service as it will directly affect the volume of constraint costs targeted on the service provider. This would appear to be neither an economic nor an efficient solution.

Consideration of the proposal by the Charging Issues Steering Group and Transmission Charging Methodology Forum would have allowed such areas to have been fully explored.

#### **TNUoS Rebate (Appendix 4)**

The proposed TNUoS rebate is not cost-reflective and reflects neither the lost value of the firm transmission access denied to the generator as a result of the constraints nor the infrastructure savings enjoyed by the System Operator from delaying the provision of the transmission infrastructure necessary to provide unconstrained access in accordance with the GB SQSS. In particular, the decision not to adjust the locational TNUoS charge in unconstrained zones (zones 9 – 20) results in a higher residual TNUoS tariff in the constrained zones (1 – 8) than would have otherwise been the case. Locational TNUoS charges are based on estimated physical flows and since flows in England & Wales will be affected by Cheviot constraints then locational charges in England & Wales should be increased.

An additional BSUoS charge of £2-3/MWh spread over the operating hours of a near-baseload plant could increase costs by over 5 times as much as the proposed TEC rebate.

#### **Implementation**

National Grid has indicated that it would like these proposals to be implemented as early as possible. In common with other Scottish generators, ScottishPower contracts for a significant proportion of the output of its power stations a number of months and years in advance. Although calculated ex-post, the annual impact of BSUoS costs upon generator costs can be estimated using data from the SO Incentive Scheme and Operational Forum forecast updates. Introduction of this proposal mid-year would result in the imposition of significant unforeseen costs on Scottish generation which cannot be recovered to the extent that output has already been contracted. Should National Grid seek to introduce this charging modification, it should do so for a full financial year providing at least 6 month's notice to generators of its implementation.

## **2. LAWFULNESS OF PROPOSED AMENDMENT**

In addition to the responses to your pre-consultation set out above, you should also know that ScottishPower considers that adoption and implementation of the proposed amendment would be unlawful for the reasons noted in the annex to this letter.

I hope you find these comments useful. Should you have any queries on the points raised, please feel free to contact us.

Yours sincerely,

**James Anderson**  
**Commercial and Regulation Manager**

## ANNEX – LAWFULNESS OF PROPOSED AMENDMENT

This annex sets out, in high-level summary terms, the reasons why ScottishPower considers that the adoption and implementation of the proposed amendment would be unlawful. The summary is not designed to be exhaustive and we reserve the right to expand upon, or to supplement, the reasons specified below at a future stage.

### Discrimination against existing Scottish generators

The existing Scottish generators targeted by the proposed amendment have the right, as users of the GB transmission system and participants in the GB generation market, to be treated in a non-discriminatory manner as regards the charges which they pay for access to and use of the GB transmission system. The sources of this right include Article 3 of the Internal Market in Electricity Directive (Directive 2003/54).

The adoption and implementation of the proposed amendment would violate this right in the following manner:-

- The existing Scottish generators who are the object of the proposed amendment participate in a GB-wide competitive market for the sale of electricity at wholesale level.
- The proposed amendment treats the class of existing Scottish generators who are to be subjected to increased BSUoS charges as a consequence of their location (the **Relevant Class**) differently (and adversely as regards ability to earn a commercial margin) in comparison to other existing participants in this market.
- This differential treatment has not been (and, we consider, cannot be) objectively justified by National Grid as required by law. National Grid has not demonstrated the existence of an objective need for action of the nature or extent proposed nor has it advanced a logical justification for requiring members of the Relevant Class to shoulder a substantially larger share of the increased burden of managing constraints arising at derogated non-compliant boundaries than any other users of the GB system
- The discriminatory treatment of particular generators in this way will result in the distortion of competition within the GB market mentioned above.

### Discrimination against renewable electricity produced in Scotland

The generators targeted by the proposed amendment include those producing electricity from renewable sources, notably wind. National Grid has a duty to ensure that, in charging for access to or use of the GB transmission system, it does not discriminate against electricity produced from renewable sources, in particular in peripheral regions. This duty arises under Article 7(6) of the Renewable Electricity Directive (Directive 2001/77).

The adoption and implementation of the proposed amendment would violate this duty in the following manner:-

- Electricity generated from renewable sources in Scotland is electricity which is protected from discrimination in terms of Article 7(6).
- The proposed amendment specifically targets generation located in Scotland by virtue of its location to the north of the only currently derogated non-compliant boundary on the GB transmission system.

- Thus, the proposed amendment will have the direct result of increasing the cost of generating electricity from renewable sources in Scotland as compared to that of generating electricity (including from renewable sources) elsewhere in Great Britain.
- This discrimination is not (and, we consider, cannot be) objectively justified by National Grid as required by law.

#### Imposition of unfair transmission charges

The generators targeted by the proposed amendment have the right, as users of the GB transmission system and participants in the GB generation market, to expect that the rules according to which National Grid imposes charges for access to and use of the GB transmission system will be objective, transparent and cost-reflective. The sources of this right include Article 11(7) of the Internal Market Directive, Article 4 of the Regulation on Conditions for Access to the Network for Cross-Border Exchanges in Electricity (Regulation 1228/2003) and Standard Condition C5 of National Grid's transmission licence.

The adoption and implementation of the proposed amendment would violate this right in the following manner:-

- The stated aim of the proposed amendment is to target the short run cost of providing access to the non-compliant portion of the GB system towards the generators who require such access and, thus, enable them to make economically informed decisions as to the efficiency of their generation output decisions.
- On the assumption (which ScottishPower disputes) that pursuit of the stated aim is objectively justifiable, the proposed amendment must represent a suitable means of achieving that aim and enable individual generators to make informed and efficient output decisions. Thus, the liability of each such generator to pay locational BSUoS charges ought reasonably to relate to the output decisions which it takes and not to factors beyond its control.
- It is evident, however, that liability to pay such charges may arise, cease or be increased or decreased as a consequence of factors which are beyond the control of the charge payer and may, indeed, relate to the output decisions of other generators.
- In addition, the proposed amendment should not result in the imposition of an excessive individual burden on those generators who are subject to the locational BSUoS charges
- It is apparent, though, that the level of charges which would be imposed on individual generators under the proposed amendment is substantially greater than that which ought reasonably to result from efficient constraint management action on the part of National Grid.
- To this extent the charging rules introduced under the proposed amendment are manifestly inappropriate having regard to the stated aim, would result in the imposition of an excessive burden on affected generators and would amount to a disproportionate interference with the rights set out above.



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# BWEA



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20<sup>th</sup> April 2009

Dear Robert,

### **BWEA Response to GB ECM 18: Locational BSUoS**

Many thanks for the opportunity to respond to this consultation and for National Grid's work in presenting these proposals to industry.

BWEA has detailed our concerns with locational BSUoS below. BWEA should note that we have not been able, in the time available, to develop a final agreed line on implementation – in principle – of a cost targeting mechanism. Certainly many of our members do not support implementation, whilst some accept the need to take some early action on constraint costs. We hope to be able to provide further guidance on this after further discussion at BWEA's Grid Strategy Group meeting on 21 April. To the extent that this is after your response deadline we recognise that you may or may not give weight to any further submissions.

#### **Locational BSUoS process concerns**

As we noted in our response to CAP 170, BWEA remains very uncomfortable with the truncated timescales in which these proposals are being brought forward. BWEA is concerned that these timescales limit the extent to which there can be meaningful consultation, and severely curtail the development and assessment work that National Grid has been able to undertake.

The prompt for a rushed consideration of locational BSUoS is very clearly Ofgem's letter to National Grid asking for proposals to be brought forward in a very short timescale. Ofgem has already indicated its support for locational BSUoS in its letter of 19 March, considering the extension of the Cheviot derogation. As Ofgem also has the power of veto over these proposals, we would question whether this is a genuine consultation on whether to implement, or not, locational BSUoS.

Our impression is that National Grid is looking to the industry to help it develop some rather rushed proposals, rather than this being a fully thought through consultation on the merits or otherwise of the concept itself. Therefore, BWEA would like to make it crystal clear that we believe the process being followed is flawed, and that our comments on the proposals themselves do not compromise this position.

## **Treatment of TNUoS**

BWEA agrees that the TNUoS cost signal is inappropriate for capacity sold in excess of the currently defined intact GBSQSS compliant system, and which is also subject to a short-run cost. We consider there to be a more fundamental point on the application of TNUoS and whether it was ever appropriate to extend the methodology to a non-compliant system. This has implications for charges in England and Wales. The decision not to adjust charges in England and Wales appears to be for practical reasons rather than derived from first principles.

BWEA agrees there would be issues with adjusting charges across-the-board and certainly many of our members would not support charges recalculated on this basis, being applied in England and Wales. However, we do not see the rationale for National Grid effectively protecting generators south of the Cheviot Boundary from unexpected and substantial alterations to their tariffs, but seems content to ignore these considerations for those north of the boundary.

## **Signals**

It is difficult to avoid the conclusion that the primary motivation is simply to increase charges to Scottish generators to a level sufficient to deter them from participating in the generation market. To be clear, our members are high merit order, fuel-free generators that always want to generate when they can. It makes no environmental or economic sense for them to curtail their generation – consumers get best value from the Renewables Obligation from generators connecting and generating.

Furthermore, as you are aware there are limits to the extent that a variable renewable generator can respond to an ex ante price signal. They may be able to curtail output but it is more difficult to respond positively to a signal to generate. Given the policy focus on facilitating renewables on the grid, we consider it a backwards step to implement price signals which could deter wind farms from generating.

There is also little information in the consultation on the precise, agreed nature of any ex ante signal or on how generators are expected to deal with this information. This is a serious and fundamental omission.

BWEA is also supportive of comments made by the Scottish Renewables that the price signals should ultimately consider the effect that both generation and demand have on constraint costs.

## **Interaction with TAR**

There is a significant overlap with some of the TAR proposals in so far as locational BSUoS is a response to a policy which has allowed connection ahead of reinforcement. (We have previously expressed our view that system reinforcement since the inception of BETTA has not been pursued with adequate or appropriate vigour and the consequences of this are now being felt – to the detriment of our members.) It falls short of a “Connect and Manage” regime as envisaged, as there has been very little consideration until recently on the “manage” part of the equation.

In connecting ahead of reinforcement our members have responded to an invitation to do so, both from Ofgem in the BETTA decision, and from Government via the Renewables Obligation. If costs have been efficiently incurred then there needs to be a proper debate about how they are allocated. This has been a central feature of TAR and whilst the

proposals may not be fully polished there are some encouraging themes emerging which could form the basis of new access products.

If Ofgem and National Grid are dissatisfied with the market and the costs being incurred today, then the market mechanisms could be revisited. Simply passing on “unmanaged” costs to our members does not necessarily help customers when customers pay for the Renewables Obligation. Furthermore, we would question what this will achieve if our membership can only respond by turning off their generation. They cannot build new lines quicker, improve the scheduling of outages or do anything else that might otherwise bring the cost down.

BWEA is also very concerned about the potential for piecemeal and ongoing alterations to (in the first instance, but not limited to) Scottish generators’ costs. As you may know, one of our membership’s key requirements is reasonable predictability of costs, and we seem to be moving further away from this with locational BSUoS.

### **The costing methodology**

As an exercise in identifying costs the methodology appears reasonable, notwithstanding the fact that since the System Operator role is a monopoly, we are somewhat reliant on National Grid’s analysis. In that respect BWEA welcomes National Grid’s intention to improve the transparency of its actions and costs.

BWEA reiterates its concerns with regard to the cost allocation methodology applied to non-compliant parts of the system. It may not always be correct to apportion the most expensive mitigation actions to the apparent source of non-compliance. This is because foresight of future non-compliance could allow National Grid to effectively negotiate the equivalent of a bulk discount on constraint services.

### **Closing comments**

BWEA supports a discussion about how to manage and allocate constraint costs, but we are disappointed that these proposals are hastily developed, that they leapfrog the TAR discussions, that they are unlikely to be bankable by virtue of their unpredictability, and that they are independent of any measures to manage the costs by any other means.

I hope you find these comments useful. If you would like to discuss any aspect of this response, please don’t hesitate to contact me.

Yours sincerely,

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

Dr Gordon Edge, Director of Economics & Markets, BWEA

**By Email**  
**Rob Smith**  
**Transmission Commercial**  
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20 April 2009

**Response to the Charging Consultation Document GBECM-18 – locational BSUoS methodology**

Dear Rob,

Thank you for the opportunity to respond to the above modification. Before addressing the questions individually we would like to make a few points by way of an introduction. First, we share the concerns of Ofgem and National Grid surrounding rising constraint costs and strongly support GBECM-18 as a method of targeting these in a more appropriate way. Equally, we share Ofgem's view that there may be potential for undue exploitation of market power in certain regions within the GB wholesale electricity market and that locational BSUoS could mitigate these concerns to some extent.

However, whilst we concur with the majority of the core principles of locational BSUoS, we do not agree with the proposals to 'scale back' the TEC of generators north of the Cheviot boundary in recompense for the boundary not being compliant. Under the current proposals, the rebate would be calculated on an annual basis and applied throughout the year regardless of whether there was a constraint or not. Meanwhile the Targeted Constraint Cost (TCC) would only come into effect during a constraint period. This means that in periods in which there is no constraint active Users would be gaining free access to the 'additional' TEC. This would effectively result in National Grid introducing charging discrimination against Users situated south of the non-compliant derogated boundary (henceforth NCDB).

Indeed, National Grid figures show that in zones 1-8 between April 2005 and March 2008 there was on average an active export constraint 15% of the time<sup>1</sup>. The upshot of this is that if the locational BSUoS scheme had been in place during this period generators north of the NCDB would have enjoyed free transmission access to part of their TEC for 85% of the time. We believe that if this rebate were to be approved it would be seriously detrimental to competition and we would urge National Grid to revise this aspect of its proposals prior to submission to Ofgem. As such we believe that if TNUoS is to be changed in the manner suggested a separate consultation is warranted.

As a further point we believe that significant changes to charging arrangements should be properly assessed and we feel that this modification has been hurried through. We believe that the process in this case has been sub-optimal given that these proposals have not had the benefit of serious examination in industry working groups.

Below we outline our responses to individual questions posed in the consultation.

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<sup>1</sup> p25, *Consultation Document on the consequential impact of CUSC amendment proposals*, National Grid, 12 March 2009

**What impact do you feel these proposals will make on constraint costs?**

We believe that in general these proposals will more accurately target the costs of balancing the system on the generators causing them. Whilst we cannot be certain of the impact that such an additional cost will have on overall costs of generation (particularly given the post-event reporting of BSUoS costs), there may be an impact at the margin and generators may exhibit different running behaviours as a result.

**Do you agree with the proposal in that the locational BSUoS element is only applied to generation?**

Whilst we strongly support a locational BSUoS charge for generation, we do not see any rationale for applying this to demand, which is less able to respond to signals. The origin of the problem of rising constraint costs on the NCDB, which GBECM-18 seeks to address, is the introduction of BETTA which extended the rights of generators with internal Scottish rights to England and Wales. Further, as Ofgem has noted, the issue of constraints on this boundary may be compounded by the network being vulnerable to exploitation<sup>2</sup> which is another area that these proposals could potentially resolve. In summary, we see the sole *raison d'être* of GBECM-18 as being to address issues pertaining to generation and not to those of demand. Hence we fully support the proposal that GBECM-18 should apply exclusively to generation.

**Do you agree that this proposal should be implemented without addressing the method of targeting distributed generation?**

We recognise that due to the perceived urgency of the locational BSUoS proposal, National Grid has been unable to address the issues around embedded generation in the time available. It is certainly true that to an extent, the increased levels of embedded generation in Scotland will contribute as much to the issues on NCDBs as the transmission-connected generators. We would hope that this issue, if it cannot be addressed as part of this specific modification, is examined as soon as possible. Consideration also needs to be given to the effect of these proposals on embedded benefits for certain generators, and again we would expect this issue to be explored when appropriate.

**Do you agree the timing for locational BSUoS is appropriate given the imminent proposed changes from Transmission Access Reform?**

We are of the opinion that rising constraint costs are an issue of importance, and changes are required. Some of the TAR reforms have the potential to accelerate the amount of generation coming online (especially renewables in Scotland) and thereby compound the problem of constraints. We think that it is therefore preferable that the locational BSUoS regime be in place before any TAR amendments are approved. Having said this, we are of the belief that significant changes to charging arrangements should have the time to be properly assessed. Locational BSUoS has not had the benefit of serious examination in industry working groups, and hurried change often results in unintended consequences. We would always prefer a careful and considered change process, particularly where the changes have the potential to impact market behaviour and wholesale prices.

**What do you see as the benefits and/or consequences of this proposed change (e.g. in respect of new generation connecting)?**

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<sup>2</sup> p10, *Addressing Market Power Concerns in the Electricity Wholesale Sector - Initial Policy Proposals*, Ofgem, 30 March 2009

Centrica sees a number of benefits in adopting GBECM-18. The core benefit of these proposals is that the costs of balancing the system are allocated in a more cost-reflective and appropriate way. As such the marginal cost of generation will be more accurately reflected in participants' pricing strategies and the market will clear more efficiently. An additional benefit is that these proposals should help facilitate competition. Centrica believes in particular that the additional transparency of constraints afforded by the additional reporting related to locational BSUoS and the forthcoming implementation of P217 is likely to have a positive 'self-policing' effect on generators in constrained area.

Some players within the industry are likely to claim that a locational BSUoS charge would have a deleterious impact on the investment of generation in Scotland, both in terms of renewables and conventional generation. However, we would disagree with this proposition on the basis that, as we mentioned above, the TCC is unlikely to be sufficiently high to have an impact on the marginal cost of generation, and as such we do not believe that it would be the key factor in any decision to build new plant.

**Do you agree with National Grid's assessment of this proposal against our relevant licence objectives?**

Centrica believes that locational BSUoS should lead to a generation merit order that more accurately reflects the BMU-specific marginal cost of generation and as a result this should help enhance competition within the Balancing Mechanism. Also, as the current locational element of the TNUoS charge does not accurately reflect the short-run cost of accessing the transmission system in zones which incorporate NCDBs, we believe that introducing a charging signal which attempts to more fully reflect this cost should improve the efficiency of transmission investment signals. However, as mentioned above, we believe it to be inappropriate that generators north of the NCDB should obtain a TNUoS rebate for the whole year, when it is only during periods of constraint that the issue arises (and they would be paying locational BSUoS as a proxy for the short-run cost of access).

**Do you agree with the methodology to determine the level of Non Compliance on a derogated boundary, if not, what improvements could be made?**

We are comfortable with the methodology used to determine the level of non compliance on a derogated boundary.

I hope these comments have been useful. If you want to discuss any element of this response, please do not hesitate to contact me on 07789 579169 or at [Ricky.Hill@centrica.com](mailto:Ricky.Hill@centrica.com).

Yours sincerely,

Ricky Hill  
Industry Development Analyst  
Centrica Energy  
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FAO Rob Smith  
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20<sup>th</sup> April 2009

Dear Rob,

### **GB ECM-18 Locational BSUoS Charging Methodology Consultation Response**

Drax Power Limited ("Drax") is the operating subsidiary of Drax Group plc and the owner and operator of Drax Power Station in North Yorkshire. We are pleased to have this opportunity to respond to the National Grid consultation regarding the potential use of a Locational BSUoS Charging Methodology.

The electricity industry is currently undergoing unprecedented change as the UK aims to become a low-carbon economy. In fact, it has recently been indicated by DECC and Ofgem that such a change will require equally unprecedented investment in infrastructure in order to achieve the Government's environmental targets in an economic and efficient manner<sup>1</sup>. Drax welcomes these comments and believes that it is important to ensure that the incentive for National Grid to build new infrastructure, when it is economic to do so, is maintained.

However, it is of concern that the consultation document refers to the Cheviot boundary as "*currently*" being the only non-compliant boundary. When appraising this charging proposal, it is important to remember that the implementation of BETTA, along with the associated derogations of connections, came as a result of Government policy to form a single GB electricity market.

Drax believes that this proposal requires further detail regarding the potential future implications to generators should the proposal be implemented. Drax would like to raise the following three points:

1. It is important for National Grid to clarify its position regarding the Interim Connect and Manage process, where National Grid will effectively recommend the connection of a new generator prior to the construction of wider transmission infrastructure. It is our opinion that the use of Interim Connect and Manage should not be viewed as a comparable situation as that of the implementation of BETTA. Therefore, it is our view that such future derogations should not lead to further Locational BSUoS zones that could potentially disadvantage plant with non-derogated connections by dramatically changing the economics of their investments.
2. Drax seeks reassurance from National Grid that the proposals described by this consultation would not be seen by National Grid as a potential alternative to transmission infrastructure investment; it would be detrimental to the future development of the market to use Locational BSUoS zones as an alternative to the construction of new infrastructure.
3. Drax believes that if any Locational BSUoS charging methodology were to be adopted to address Cheviot boundary constraints, it should:

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<sup>1</sup> ENWG Report, Our Electricity Transmission Network: A Vision for 2020, March 2009.

- a) be implemented in a way that only permits National Grid to use Locational BSUoS *at the Cheviot boundary*, i.e. where the problem they seek to address exists; and,
- b) contain criteria whereby the locational element expires when the appropriate transmission infrastructure upgrade for the Cheviot boundary has been developed to a point where the boundary is no longer non-compliant.

Further to this, it must be recognised that this proposal would be most damaging to nuclear and renewable generators, rather than the generators that National Grid are attempting to target, i.e. those that are considered to have benefitted from the increase in constraints. The inflexible nature of baseload nuclear plant and the need of wind turbines to generate when their “fuel” is available will mean that such generators will be subject to price signals to which they may not be able to respond. Interestingly, these are also the types of plant that the Government is striving to encourage in order to move the UK towards becoming a low-carbon economy and to meet its 2020 environmental commitments.

Finally, it is disappointing that National Grid has developed, proposed and consulted upon a charging methodology of such significance without a greater degree of prior engagement with industry parties. This proposed change to the charging methodology has been developed internally and at considerable speed with no consultation with an industry working group, yet it fundamentally changes the dynamics of the GB electricity market.

In summary, Drax does not support GB ECM-18 in its current form, as the proposal:

- only addresses the symptoms of the problem without addressing the cause of the issue itself;
- lacks detail on how similar situations will be avoided in other areas of the GB network;
- fails to identify the extent to which Locational BSUoS will be used in the future should constraint scenarios be created by National Grid’s future investment and connection decisions where no derogations currently exist; and,
- is being raised at a time when significant charging reform is already under consideration as part of the Transmission Access Review proposals.

We look forward to reviewing National Grid’s comments on the responses received regarding the Locational BSUoS proposal. If you have any queries regarding the comments in this response, please feel free to contact me.

Yours sincerely,

Stuart Cotten

Regulation  
Drax Power Limited



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20<sup>th</sup> April 2009

Dear Rob,

### Consultation Document GB ECM-18: Locational BSUoS Charging Methodology

International Power (IPR) is responding to your consultation on behalf of First Hydro Company, Saltend Cogeneration Company Ltd, Rugeley Power Ltd, Deeside Power Development Company Ltd, Indian Queens Power Ltd and IPM Energy Retail Ltd.

IPR does not support the proposal for the following primary reasons:

#### Subjective and un-auditable

The methodology is a development of an internal NG process which requires a large degree of subjectivity. Whilst this is appropriate for internal performance evaluation, it does not provide a solid basis for charging tariffs. We are concerned that an external audit of the charges may lead to compliance issues.

#### Changing methodologies within year

The proposal to change the TNUoS charges within the charging year is an unnecessary deviation from precedent. The problem of increasing constraint costs has long been identified; it was an issue in 2008 and it was raised at an early stage in the 2009/10 SO Incentive Scheme workshops/proposals. Therefore, there seems to have been sufficient time to address the problem through proposals/consultations before the TNUoS charges were set for 2009/10.

Within year changes are important because throughout the industry, on both the generation and retail sides, contracts will have been struck for 2009/10 on the basis of the published charges. Any alteration to the charges runs the risk that these contracts will have to be re-opened or windfall losses/gains incurred. This is not efficient. Further, within year changes increase the risk premium, due to regulatory

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risk, which must be factored into subsequent decisions. Finally, it may be questioned as to whether the proposals will achieve Ofgem's intention to reduce the consumer's exposure to the cost of constraints within year. If a contract has no pass-through mechanism for BSUoS, as is the case in certain sectors of the retail market, then a tariff reduction within year will simply be a windfall gain for the supplier.

### Locational signals

We consider that locational signals are an important part of the transmission charging methodology in order to encourage efficient investment in the network and this proposal weakens that locational signal. It also seems to lead to some odd investment signals. Firstly, as the network in Scotland becomes more compliant then the LRMC of access will appear to increase. Further, in the table provided in Appendix 4, the Wider Zonal Tariff for Auchencrosh (Zone 8) is cheaper than that of North East England (Zone 10), that is to say, a station situated on a SQSS compliant part of the network will face higher fixed charges than one sited behind a non-compliant boundary. This appears to be a confusing investment signal and it is not certain that a potential increase in costs as a result of a targeted locational BSUoS will be sufficient to redress the balance.

### Investment signals

There is a risk that generation investment signals will be affected by this proposal. The increase in charges for existing plant will limit the incentive to invest in that plant and, using a wider perspective, an unstable regulatory environment affects the investment risk for both new and existing plant.

We consider that the following observations are less important but, nonetheless, worth noting:

### Interaction with TAR

The TAR process has investigated various options in this area (including 'simple overrun' for example) and to adopt this proposal risks pre-empting the outcome of that process. Further, as acknowledged in the consultation, the time frame has limited the "scope and breadth of the proposals", for example the impact of the increased amount of embedded generation is left unexplored; this limited scope is a concern given that it is a substantial change to the charging regime.

### Treatment of eroded margin

The approach taken to replacing margin in the calculation of costs (and therefore charges) employs a degree of subjectivity. This does not seem to be an appropriate basis for charging tariffs.

### The appropriateness of socialisation

The increase in constraint costs is a direct result of the commitments made at the introduction of BETTA. Whilst it may be appropriate to charge new generation for the additional constraint costs that they cause (as this can be factored into any investment decision), it seems unfair to penalise existing plant for a problem that is the result of regulatory decisions. It seems more appropriate to socialise the costs of constraint caused by existing (or pre-BETTA) plant.

### Interaction with other current proposals

The consultation is being run in parallel with the proposal to alter charges for the intertrip service and it is unclear what effect that proposal will have on reducing the costs of managing constraints. It is not clear that both proposals are required to reduce constraint costs to 'acceptable' levels.

### Ability to react to the BSUoS signal

The basis of the proposal is that generators will reduce output in response to a signal that there is a risk of constraints and, therefore, a high price for the targeted locational element of BSUoS. However, there is a limited amount of flexible plant in Scotland capable of responding to this signal, for example, wind and nuclear will simply be exposed to the generation patterns of others. The increase in

constraints costs is principally due to new plant connecting and it seems unfair to discriminate against different types of pre-BETTA plant in this way.

We hope that these comments are useful.

Yours sincerely,

Andy Rimmer.

Trading Analyst



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17 April 2009

Dear Craig

### **GB ECM – 18 Locational BSUoS Charging Methodology**

Welsh Power welcomes the opportunity to comment on this charging consultation document. We agree with NGC that trying to target some of the locational constraints back to the generators causing them would provide a more cost reflective charging structure. We further agree that NGC is currently meeting the relevant objectives, but that better cost targeting could be an enhancement given the current problems.

We do believe that generators, both existing and new, need warning about the likelihood of a non-compliant boundary arising where they are located, as the proposal would increase costs to generators who's location was already set before other parties connecting creating the issue of non-compliance. Generators should be given as much warning as possible that they may then manage the risks associated with increasing charges.

We agree that TNUoS should be reduced for generators with non-firm or limited access. We also agree that generators knowing the charges ex-ante can better allow them to know their costs before selling their power. However, we believe that NGC's scaling must be based on the best view of how much access will be limited, rather than assuming all connected plant in an area is operating at full load all of the time. For example, in a non-complaint area where a wind farm triggers the non-compliance it could be assumed that the right to firm access is only impacted on say 30% of the year given the load factor for wind. Where the non-compliance is only triggered by a small amount of generation, say 100MW, then a 500MW plant could only be impacted on one fifth of its TEC and then only for say 30% of the time.

While not having any firm proposal, Welsh Power believes that NGC needs to consider what the impact on the TEC rights of generators is when finding a scaling solution. To calculate the discount based on the cost of achieving compliance seems to reflect NGC's costs rather than the impact on the generators access rights, which is what they are paying for. A methodology that looks at probability of reduced system usage would seem a more efficient signal to send, in the same way reduced transportation charges to interruptible gas customers depends on the level of interruption the customer is exposed to.

We appreciate NGC may believe that this problem of non-compliance will not exist for long enough to warrant too complex a methodology, but we feel this deserves some further consideration.

The Appendix 4 methodology, while possibly offering a reasonable discount to generators behind non-complaint boundaries, has an adverse effect on generators in negative TNUoS zones. It reduces the benefit that the generators in negative zones can get by generating at the times of peak demand. Given potential security of supply concerns, we do not believe that this is a signal that NGC would want to reduce at the current time. For marginal plants in negative zones, they may be net losers from the realigned incentives, which we do not believe was NGC's intent. These incentives need to be maintained if NGC is to continue to meet the objectives to facilitate effective competition or reflect costs. Generators in negative zones should not see reduced incentives as there is no less need for generation in their part of the network and no reduced costs to NGC from transporting power to the customer in these regions.

The publication of the locational BSUoS outturn should be achieved as quickly as possible. NGC suggests 2 days, but does not justify this timeframe. We are not sure what the work level is, or what timeframe could be achieved with more resourcing, but at the very least NGC must keep this under review.

Welsh Power does not believe that locational BSUoS will have any significant impact on generation patterns as predicting the cost may be difficult, but it will increase the costs of generators behind the boundaries and thus the price at which they may sell power. We do feel that market abuse remains a real concern and Ofgem need to continue to monitor behaviour behind constraints.

In terms of connecting generation, Welsh Power believe that generators only want to connect where they can have firm access to the market. However, the state of the transmission system means that there are very few places where that is possible. It remains vital that NGC work with Ofgem to remove "speculative" bookings from the queue and also try to move connection dates for some new plants to more realistic dates to allow more ready developments to progress faster. We remain concerned by the number of bookings held by some of the larger players and by the connection dates of plants that have yet to get consents, EPC deals or start any work. The current economic climate leads us to believe that there is significantly more free capacity in reality than the market can currently see.

Please do not hesitate to get in touch if you wish to discuss any of the points raised.

Yours sincerely

A handwritten signature in black ink, reading "Rebecca Williams". The signature is written in a cursive style with a large, stylized initial 'R'.

Rebecca Williams  
Head of Trading



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20 April, 2009

Dear Rob,

### **GB ECM-18: Locational BSUoS Charging Methodology**

Thank you for the opportunity to respond to the above consultation. This response is made on behalf of E.ON UK plc.

We agree that the present derogation on the B6 boundary introduced as a result of BETTA has created an unacceptable level of constraint costs. We therefore agree that something needs to be done to curb the level of these costs. However, it should be borne in mind that this derogation represents a unique set of circumstances and should be transitory in nature. We would be concerned if the SQSS derogation on the wider system were to be extended indefinitely. We therefore believe that any solution should reflect the unique and time bound nature of the issue that it is seeking to solve.

The proposed Targeted Constraint Charge (TCC) arises from the appropriate principle that costs should be targeted at those who cause them to be incurred. However, it is slightly broad brush in nature in that it targets all generators behind a non compliant boundary rather than those whose connection have made it non compliant. Therefore, its incentive properties on new connecting parties, who are deciding between connecting early or waiting for reinforcements to be built, are diluted significantly.

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However, the BETTA derogated boundary represents a different set of circumstances. This boundary was already “non compliant” prior to the introduction of BETTA as the circuits concerned were interconnector circuits and not designed to SQSS standards. Therefore, it is not possible to identify particular generators whose connection decisions caused the non compliance. Of course, the non compliance has been made worse by the setting of the deadline at BETTA for preferential treatment of connection applications. However, we agree that this broader approach for targeting costs appears sensible for the B6 boundary derogation although we do not believe it would be appropriate for use in a wider context.

The application of the TCC should help reduce the cost of constraints in two main ways. Firstly, generators who previously had no incentive to avoid running in constrained periods will have such an incentive. This is a volume effect which reduces the incidence of constraints. However, secondly there will be a price effect as bid levels that drive up balancing costs will be targeted to some extent back at the parties concerned.

We support the approach that it is the marginal costs that should be targeted in the TCC. It is correct to assume that an efficient system operator would incur the lower levels of cost to meet constraints for a compliant system and that the higher level costs are those caused over and above this. It also appears sensible in the context of levying the TCC to adjust metered volumes by the balancing actions taken on that unit. We agree that distributed generation should not be exposed to the TCC. It is not presently exposed to BSUoS and therefore until this position changes, neither would it be appropriate to expose it to TCC.

However, we do not agree with the proposed discount to TNUoS. The locational element of TNUoS reflects the incremental cost of building the network to accommodate flows caused by the provision of an additional MW of TEC at all nodes on the system. It does not actually consider what actually has been or needs to be built to accommodate those flows. For example, it does not consider whether a new line has to be built if the system is already used to full capacity. Similarly, it does not consider the usage of any spare capacity available. Instead the system is assumed to be built to meet exact flows as modelled. Therefore, it is not clear that the locational charge methodology does indeed assume a compliant system is built. It simply calculates flows implied by a background of forecast demand and current TEC rights and applies average generic costs per MWkm to them.

We believe that the present system contains a certain amount of dilution in the cost signal which actually understates the cost of reinforcing the network in Scotland. Our concern is that the proposed TNUoS discount would further undermine the signal. This could have the unfortunate effect of encouraging more connection to inappropriate parts of the network thereby exacerbating balancing costs further.

Of course, the timing of this proposal is controversial. Implementing a change as fundamental as this in such short timescales is risky, although we understand the reasons for urgency. This makes it more important that the changes if implemented are targeted at the urgent issue to address which is the level of constraint costs at the non compliant B6 boundary. On this basis we could on balance support the introduction of GB ECM-18

albeit with the proposed TNUoS discount removed. However, we would not be supportive of its wider application across the network without a more considered assessment process.

Yours sincerely

Paul Jones  
Trading Arrangements



20 April 2009

Rob Smith  
Transmission Commercial  
National Grid Electricity Transmission Ltd  
National Grid House  
Warwick Technology Park  
Gallows Hill  
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CV34 6DA

Dear Rob,

**GBECM-18 Consultation Document**

Wind Energy is pleased to submit this response to the above consultation document on locational BSUoS. We are writing on behalf of six group companies with wind power projects under development across Scotland with a combined capacity of some 600MW. The principal shareholder in the Wind Energy companies is AES Corp, one of the world's leading independent power producers.

We understand and in part agree with Ofgem's concern about the level of constraint costs. We also feel these are too high but in our view the reasons are not addressed by your proposals. It is our impression that the level of costs is more attributable to flaws in the structure of the BM. Before seeking to address the problem there is need to understand and agree on the cause. For that reason we consider that the first step should be a thorough review of causes rather than the knee-jerk reaction which NGET has been encouraged to take by the disappointing actions of the industry regulator, Ofgem. Ofgem should be leading on this and being much more constructive in its approach to this major market issue.

Subject to our comment above that a different approach needs to be taken, we now turn in the remainder of this response to the specific proposal which has been made. The fundamental premise for locational BSUoS seems to be that the market can respond to varying price signals in operational time periods. For wind farms operated by anyone other than major integrated utilities with teams set up to manage such a charging approach, that premise cannot be correct. We contend that these proposals, if implemented, would therefore be discriminatory. Whether the information is ex-ante or ex-post makes little difference – the degree of advance warning for a wind farm would not alter our behaviour because we are not able to take decisions based on that information without considerable additional in-house resources to make that call, contributing unjustified additional costs to our industry.

Wind energy economics are heavily reliant on being able to generate when the wind is blowing and having known revenues (or revenues varying within understood bounds). This is due to the high capital costs of equipment and low variable costs. There is an argument that locational BSUoS would drive conventional generation off the bars first, thus avoiding constraint costs, but an alternative view is that the level of apparent constraints behind a boundary (generators with no market for their power but able to seek to be bid off behind a constraint) is more a feature of the structure of the BM and this will do little to change the quantum of costs – merely pass the problem to the generators in the mistaken belief that it will not have adverse consequences on consumers by doing so. It will.



By adding material uncertainty to costs, a proposal such as this would undermine the ability of wind power projects to obtain finance in an already difficult market. This would be completely counter to stated Government objectives and to EU policy. Whilst there might be an argument to say that making new generation financially not worthwhile would help reduce constraints, we do not feel this is in the interests of anyone at all.

In closing, we are aware that even if the BM is reviewed and changes made which will address the quantum of costs, there remains a question mark over mechanisms to allocate them. We are negative to the locational BSUoS approach but alternatives are needed. Locational BSUoS is close to one extreme and total socialization of costs is maybe the other. A focused discussion between all relevant parties is needed to identify the variant that best meets the suite of potentially conflicting objectives. This is not the same as the current approach of parties putting forward charging objectives, only to have parties complain about each one.

We trust that these views will prove useful to your further consideration of this concept and more importantly, the underlying issues. If you wish to discuss any points we would be pleased to meet to do so.

Yours sincerely

Michael Davies  
Managing Director

Rob Smith  
Transmission Commercial  
National Grid Electricity Transmission plc  
National Grid House  
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Warwick, CV34 6DA



20 April 2009

Dear Rob

**EDF Energy response to National Grid's consultation document for 'Locational BSUoS Charging Methodology' (GB ECM 18)**

**Executive Summary**

It appears to us that this proposal has been hastily put together and it is unacceptable in its current form. If National Grid decides to proceed with this proposal, we fully expect Ofgem to veto its implementation, for the reasons set out below:

**Process**

- The proposal will fundamentally affect the transmission charging arrangements and should therefore have gone through industry due process in the same way as all other recent high impact charging proposals; i.e. it should have been considered by the Transmission Charging Methodologies Forum (TCMF).
- Charges for access should properly be addressed through TNUoS and analysis of this and of other options (including learning from experience elsewhere, e.g. PJM) is necessary.

**Discrimination**

- Charging transmission connected generators but not distribution connected ones is discriminatory and also not cost-reflective.
- Under the proposal EDF Energy will pay up to 40% of total locational BSUoS in relation to our two Scottish stations, which have not contributed to any of the recent increase in constraint costs.
- This approach moves away from normal and accepted symmetry of BSUoS charging between generation and demand.

**Ineffective, untargeted and inefficient**

- The proposal is not clear and does not tackle the main causes of constraint costs.
- The long term underlying cause of excessive constraint costs is a lack of adequate transmission capacity. The correct and enduring solution is

therefore for Ofgem to allow National Grid to make the necessary transmission reinforcements as quickly as possible.

- There is no evidence that this proposal will incentivise changes in bidding behaviour behind the constraint and therefore will not reduce costs borne by consumers; rather it will redistribute costs between industry parties in an arbitrary manner, thereby distorting competition.
- EDF Energy will be the most significant contributor to locational BSUoS under this proposal, and yet our plant despatch and bidding behaviour will not change as a result.
- The proposal will provide a strong incentive to embedded generators to connect at lower voltages. This is both inefficient and would also distort competition between embedded and transmission-connected generators.

### **Licence Compliance**

- For the reasons above, the proposal does not in our view satisfy National Grid's obligations on non-discrimination, set out in licence condition C7.
- It also does not better meet the applicable relevant objectives within National Grid's Transmission Licence, in particular in respect of cost-reflectivity and facilitating effective competition.

### **Detailed views**

We support measures to reduce excessive or inappropriate constraint costs. However, any such measures need to be well targeted, carefully and properly considered and fully consistent with National Grid's licence. Unfortunately, this charging proposal is deficient on all counts. It is a major change requiring industry reflection and we believe it should not have been raised without prior debate, for example at the Transmission Charging Methodology Forum (TCMF). The TCMF exists for good reasons, and has been extensively involved in the Transmission Access CUSC amendments CAP161-166; it is a forum in which we have been active participants. The timing of this proposed fundamental change to charging is also wholly inappropriate given all the prior work and anticipated change as a result of these transmission access CUSC amendments.

National Grid has forecast constraints for 2009/10 of £253m or £258m and it is Ofgem's view (17 February 2009 letter to National Grid) that National Grid should seek to reduce both the size and costs of constraints. In our view, the only enduring solution to reducing volumes of constraints is to strengthen the transmission system and, where it is optimal to do so, National Grid should be allowed by Ofgem to proceed with reinforcements. On a transmission system boundary we consider that constraints costs are made up of three components:

- i. Normal costs associated with any compliant transmission boundary;
- ii. Additional costs attributed to a derogated boundary, i.e. not enough capacity;

- iii. Extra costs attributed to bidding behaviour by participants on each side of the boundary.

In discussions with National Grid on this issue it has become apparent to EDF Energy that there is an inherent assumption behind this proposal that it will impact on both the volume and price of constraint actions. However there is no evidence in the document that this will be the case. We do not believe that locational BSUoS will substantially change the bidding behaviour that produces this third element of costs. We would certainly want to see robust analysis that demonstrates a behavioural change before National Grid implemented this proposal. The extra costs discussed above will be merely socialised over a smaller group of parties, with EDF Energy facing up to a 40% share; this is clearly inappropriate, discriminatory, not cost reflective and could not be considered to better meet National Grid's objectives under its Transmission Licence. For these reasons, we would expect Ofgem to veto any decision to introduce this proposal.

This proposal attempts to target costs (ii) and (iii) to those transmission connected generators behind the derogated boundary but we do not feel it is reasonable to do this. It may be reasonable to charge (ii) to industry participants, as long as it is calculated correctly and targeted to all relevant parties. However, the charging of (iii) to one class of generator behind one boundary does not align with Ofgem's view of recovery of costs on an equitable basis from customers, supplier and generators<sup>1</sup>.

If all generation behind a derogated boundary is perceived to contribute to constraints, then both transmission and distribution connection generation should be included in any solution to address this. Distributed generation, by definition, connects to the distribution network to avoid paying BSUoS, yet this proposal uses BSUoS as a proxy for a short run marginal signal of access. However, BSUoS is not defined as an access charge; rather it deals with energy flows and National Grid's charging for energy reserves and balancing etc. and we are concerned about this apparent new definition of BSUoS. With locational BSUoS, distributed generation will have further incentives not to connect to transmission, and yet resultant increased constraint costs will be socialised amongst transmission connected generation, which seems to us unfair. Theoretically it would be correct to see demand incentivised through any changes to charging methodologies. The proposed approach moves away from normal symmetry of BSUoS charging - the proposal is discriminatory. We believe that charges for access should be addressed through TNUoS and that analysis of this proposal and of other options is necessary.

In considering the principles behind charging, this proposal moves GB charging methodologies away from EU guidance on transmission charging which is tending towards a postage stamp approach.

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<sup>1</sup> Letter to interested parties 'Derogations to facilitate earlier connection of generation – proposed interim approach' 19 March 2009

Unlike the well-written consultation on residual TNUoS charging, this document contains no analysis of industry impact and is non-transparent. In particular there is no consideration given to the impact on industry parties of such a fundamental change to charging methodologies. National Grid provides a wide ranging sum for the possible costs attributable to the non-compliant boundary, the derivation of which is extremely opaque. It is not at all clear whether the charges are to be levied only when a constraint is considered to be active; again no information has been provided to parties on the expectation of when and how often such events occur.

The constraint costing methodology which was released and re-released (due to inaccuracies) after this proposal is in our view both subjective and opaque. It is not clear to industry parties that this proposal is being implemented in an appropriate and fair manner.

EDF Energy has spent some time considering the methodology for determination of a non-compliant boundary and has looked carefully at the information that is provided in the Seven Year Statement but finds this methodology to be very unclear. The background information is subject to a number of assumptions and commercial information that is available only to National Grid, thus making it extremely difficult for industry parties to gain an appropriate understanding of the likelihood of future boundary derogations.

There are further detailed issues which we believe that National Grid should consider at the TCMF prior to making any decisions. We would ask that analysis is undertaken to consider whether there are any issues in introducing locational BSUoS in conjunction with BSC proposal P217 (due November 2009) and potentially CAP162 Overrun charging (if implemented from April 2010). Also, we question the appropriateness of these arrangements if more than one boundary becomes derogated. Clearly, there are important interactions here on which the proposal is silent but would no doubt have been considered by industry if this had been raised at the TCMF. Finally, on this issue of compliant boundaries we feel that National Grid should take some account of the SQSS Fundamental Review and what it might propose for the definition of compliance.

## **Conclusions**

EDF Energy is strongly opposed to the introduction of locational BSUoS as detailed in GB ECM 18. We are extremely concerned that this proposal has not been properly debated in an industry forum such as the Transmission Charging Methodologies Forum (TCMF). The proposal document is opaque and the detailed methodology is both complex and subjective.

There is no evidence whatsoever that locational BSUoS will change the bidding behaviour that is responsible for additional costs on the derogated boundary. This proposal is deficient because it simply charges those costs to transmission connected generation rather than all generation behind the

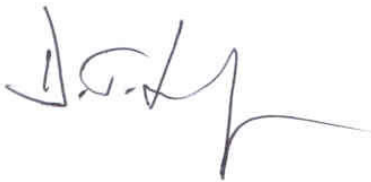
boundary. We believe it is less cost reflective to socialise these costs over fewer parties and that the approach is discriminatory. Even if distributed generation were included, we would question the arbitrary allocation of costs, which could lead to distortions to competition. EDF Energy is likely to pay a large proportion of locational BSUoS (up to 40%), through the location of two of our power stations, whose behaviour has not caused any of the recent increases in constraint costs and whose dispatch and bidding under these proposals will not change. We urge National Grid to conduct analysis on this proposal to ascertain whether behaviour can be expected to change and to provide details on the impact on industry parties.

Should locational pricing be deemed to be the right solution for GB markets, then it would be inappropriate to adopt a piecemeal approach to such a change. We should learn from other markets that have chosen such a path (e.g. PJM).

In our view, this proposal does not better meet National Grid's relevant objectives, is discriminatory, and is unlikely to reduce constraint costs through changes in behaviour. Therefore, if National Grid decides to implement this proposal, we fully expect Ofgem to veto that decision.

If you have any questions on this response please do not hesitate to contact either myself or David Love on 01452 653 325.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'D. Linford', with a long horizontal flourish extending to the right.

**Denis Linford**  
**Corporate Policy and Regulation Director**

cc. Andrew Wright, MD Markets, Ofgem  
Steve Smith, MD Networks, Ofgem  
Alison Kay, Commercial Director, Transmission, National Grid

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20<sup>th</sup> April 2009

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### **Consultation Document GB ECM-18 Locational BSUoS Charging Methodology**

Dear Rob,

Thank you for the opportunity to comment on the consultation document GB ECM-18 Locational BSUoS Charging Methodology. This response is provided on behalf of the RWE group of companies, including RWE Npower plc, RWE Supply and Trading GmbH and RWE Innogy.

We are concerned that the major reform of the current charging arrangements envisaged under GB ECM-18 is being considered on a truncated timescale in response to the letter from Ofgem dated 17<sup>th</sup> February regarding constraints on the GB transmission system. The proposal has major implications for the structure and nature of the charging arrangements and these need to be considered carefully, both in relation to the short run and long run costs of using the GB transmission system. We would caution that measures introduced in haste to address specific constraint costs may have wider ramifications and implications when considered in a GB context. This may be the case with GB ECM-18 particularly with regard to the impact of the change on user systems which may require significant modification.

In addition we believe that GB ECM-18 may have unintended consequences. For example, the introduction of locational BSUoS charges may increase costs elsewhere on the GB transmission system such as through certain bid/offer costs. In this context we note that the 17<sup>th</sup> February letter from Ofgem highlighted that the forecast costs of constraints on the GB transmission system were set to rise by 10% from the 2008/09 level to £262m in 2009/10. It would be appropriate for National Grid to provide information on the extent to which constraint cost savings can be achieved through the introduction of a locational BSUoS scheme when compared to the current arrangements. This data should enable market participants to understand the level and extent of any efficiency savings envisaged under GB ECM-18 and determines the extent to which the proposal can better meet the charging objectives.

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We note in section 4.3 of the Consultation Document that the proposal is only intended to apply to a “non compliant boundary” that is subject to a derogation from Standard Condition C17 of the electricity transmission licence. We believe that it should be made clear that the locational elements of BSUoS should only apply where there is a “derogated non compliant transmission boundary”. The boundary could be defined in the Grid Code as envisaged under Grid Code consultation B/09 “*Category 5 Intertripping Scheme*”. In the event that B/09 is not implemented a robust definition of the boundary should be included in the charging methodologies.

The locational BSUoS scheme as currently envisaged applies specifically and exclusively to generation in zones that are subject to export constraints across a “derogated non compliant transmission boundary”. Consequently these charging zones should be defined in the charging methodology by reference to the surplus generation capacity of the zone established from the aggregate transmission entry capacity (TEC), demand “capacity” requirements and the capacity of the wider transmission infrastructure required to export electricity. This should enable the “excess capacity” in the zone to be identified to users at least on an annual basis or when there are significant changes to the relevant capacities (generation, demand or transmission infrastructure).

Furthermore, the aspiration to connect an additional 450MW of renewables schemes identified in the Ofgem open letter dated 19<sup>th</sup> March 2009 on “*Derogations to facilitate earlier connection of generation – proposed interim approach*” raises the possibility of further derogated non compliant transmission boundaries in Scotland. It also implies that derogated boundaries may occur anywhere on the GB transmission system. This may mean that there will be multiple locational BSUoS zones which will vary over time and the arrangements must be robust to accommodate such zones. For example, the process for establishing and removing zones should be identified in the charging methodology (including the notice periods for designating zones and publishing indicative charges).

Finally, we believe that the implications for user systems should be considered as part of an impact assessment. GB ECM-18 will require that users must prepare for the application of locational BSUoS arrangements anywhere on the GB transmission system where there is a derogated non compliant transmission boundary. The full implications of such arrangements may require significant system changes. We estimate that system changes for implementation of scheme could take at least 9-12 months to implement (for example to enable each power station to be subject to and to validate different locational BSUoS charges).

With regard to the specific questions set out in the consultation document we have the following comments:

*What impact do you feel these proposals will make on constraint costs?*

There is insufficient information in the consultation document to make any meaningful observations on the likely level of constraint cost savings. While we understand the charging arrangements in principle, we would have expected that detailed evaluation of the impact of the proposals would be provided.

With regard to specific constraint costs we would note that since the new locational charge will be based on all generation in the zone contributing to constraints then all such generators will be subject to higher charges rather than marginal generators that may be creating or significantly contributing to the constraint. The extent to which the marginal generator with the additional locational BSUoS cost would change behaviour is clearly crucial in evaluating the success of the proposal in reducing the overall level and therefore cost of constraints. It is unclear to us at this stage whether the incremental costs associated with locational BSUoS are sufficient to change plant dispatch or whether the proposal results in a cross subsidy from certain classes of generator to other classes of generator (for example from base load to mid

merit generators). We believe that further work is required to quantify the level of the locational charges and the potential impact on overall constraint costs.

*Do you agree with the proposal in that the Locational BSUoS element is only applied to generation?*

We do not agree that locational BSUoS should only be applied to generation. The intention of the proposal is to target the short run constraint costs on those parties that are creating them. It is not clear as to the extent to which generation is creating the constraints as opposed to lack of demand in Scotland. We believe that the issue of demand charges (which could be negative) in constrained regions should be considered carefully as part of this proposal. Indeed we believe that the lack of consideration of demand simply reflects the fact that the proposals are being considered on an urgent and truncated timescale.

*Do you agree that this proposal should be implemented without addressing the method of targeting distributed generation?*

We do not agree that locational BSUoS should only be applied without addressing the method of targeting distributed generation. As noted above the intention of the proposal is to target the short run constraint costs on those parties that are creating them. It is not clear as to the extent to which distributed generation is creating the constraints by, for example, reducing overall demand. We believe that the issue of distributed generation in constrained regions should be considered carefully as part of this proposal. Indeed we believe that the lack of consideration of distributed generation simply reflects the fact that the proposal is being considered on an urgent and truncated timescale.

*Do you agree the timing for Locational BSUoS is appropriate given the imminent proposed changes from Transmission Access Reform?*

Since we are yet to see the details of the proposed reforms of transmission access we believe that this proposal should be considered on its own merits.

*What do you see as to the benefits and/or consequences of this proposed change (e.g. in respect of new generation connecting)?*

We support the intent of the proposal to target the short run constraint costs on those parties that are creating them. We are concerned however that the proposed arrangements do not target specific costs on those marginal generators that are directly creating these costs. Consequently we believe that further work is required to consider the arrangements for correctly apportioning constraint costs (such as the marginal methodology proposed as option 3 under GB ECM-14, “*Consequential impact of CUSC amendment proposals CAP161, 162 and 163 – Consultation*”) prior to determining whether the proposal will impact on, for example, new generation seeking connections.

*Do you agree with National Grid’s assessment of this proposal against our relevant licence objectives?*

We believe that the proposal in its current form better meets the charging objectives when it is compared with the current baseline. However we are concerned that the proposal may not directly target the costs on those that are causing them (i.e. the marginal generator) and consequently will not significantly reduce overall constraint costs. In addition, we believe that an enduring solution should be developed with detailed consideration of demand side (including distributed generation) participation.

*Do you agree with the methodology to determine level of Non Compliance on a derogated boundary, if not what improvements could be made?*

The proposed arrangements for determining the capacity subject to a constrained boundary appears appropriate.

*Do you believe the cost of replacing sterilised headroom should be allocated in the locational BSUoS charge?"*

We support the targeting of the short run constraint costs on those parties that are creating them. These costs should include all costs that are caused as a direct consequence of the constraint including the cost of replacing sterilised headroom.

If you wish to discuss any aspect of our response, please do not hesitate to contact me.

Yours sincerely

By email

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Market Development Manager

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13 May 2009

Dear Rob

**Charging Consultation Document GB ECM-18 - Locational BSUoS Charging Methodology**

Many thanks for the opportunity to comment on National Grid's proposals for a locational BSUoS charging methodology.

Scottish Renewables is the green energy trade body in Scotland and represents nearly 250 businesses and organisations working towards a low and zero carbon energy industry in Scotland. You can find out more by visiting [www.scottishrenewables.com](http://www.scottishrenewables.com).

**Introduction**

There has been an ongoing debate about the quality of service provided to new generation in Scotland which is able to connect to networks but is unable to do so because of capacity constraints, especially at the Cheviot boundary. Scottish Renewables has consistently argued for a responsible 'connect and manage' approach whereby time-limited and bankable derogations from the security standards on transmission networks would allow new generation to connect in a timeframe consistent with their development plan, as opposed to the (often delayed) reinforcement and upgrade plans of Transmission Operators.

In the past year National Grid has been working hard to advance the connection of Scottish generation held up in the so-called 'grid queue'. This exercise has been effective and National Grid has identified a first wave of advanced connection amounting to a not insignificant installed capacity of 450MW and a second wave of a similar amount.

This has led Ofgem to express concern about the constraint costs associated with these advanced connections and to call on National Grid to urgently address the issue.

National Grid has responded to Ofgem by bringing forward in haste CAP170 and GBECM18 to introduce, in the former's case, a method to impose intertripping on generators in generation zones 'behind' a constraint and, in the latter's case, targeting the cost of constraints on all generation behind the derogated boundary whilst providing a limited 'rebate' on transmission charges to the same generators. In principle, both attempt to target the cost of constraints on to generators perceived to have caused it.

National Grid has noted in its consultation document for GBECM18 that it believes that to date charging models have been appropriate but after investigation (and Ofgem encouragement)



has “determined that there is merit in exploring whether an alternative methodology might better facilitate the applicable charging objectives”. In its conclusions National Grid argues that GBECM18 should be introduced as it promotes more efficient investment in new generation and transmission.

### **Exploring alternatives to the current model**

Scottish Renewables agrees that it would be worthwhile exploring the management and allocation of constraint costs. It would seem sensible to conduct this exercise after the Transmission Access Review (TAR) has been completed and after the bedding of the modifications TAR has introduced but not in the current piecemeal manner encouraged by Ofgem.

When a more constructive discussion does take place we believe that there first needs to be a mutual understanding about the context and causes of constraints where the disequilibrium in supply and demand across derogated boundaries is considered. Further, that the responsibility suppliers have for drawing electricity across derogated boundaries is brought into the discussion about targeting costs on those that cause it.

It seems odd that investors responding enthusiastically to UK Government policy to cut the emission of greenhouse gases by bringing projects forward in significant number should be considered the sole cause of constraints. It has been understood for some time that constraints across the Cheviot boundary required an appropriate response to invest in reinforcement.

This has, arguably, led to a poor level of service to new generators as access has been restricted and now it is being resolved (through queue management) considered a significant problem by Ofgem. National Grid’s GBECM18 recognises this poor level of service as it would provide a TNUoS ‘discount’ or ‘rebate’ to generators subject to targeted balancing costs.

The urgent nature of this consultation and Ofgem’s Open Letter and ‘minded to’ position is unhelpful and lacking in important detail for this kind of fundamental discussion. It is possible that targeting BSUoS in the way being suggested would be viewed by the Scottish renewables industry as discriminatory and likely to be in contravention of European Directives.

### **Major concerns**

There are major concerns about the impacts on renewables generators which may be considered to be on the ‘periphery’ of the GB transmission network but based on what has been presented to the industry thus far it is impossible to assess them properly. We believe this further underlines the flawed nature of this particular consultation.

GBECM18 is likely to have the following features that would undermine the investment case for new renewable generation in Scotland:

- Cost could potentially be punitively high, especially if a generator is behind multiple derogated boundaries;
- It would be impossible to predict what that cost would be;
- The cost from year to year is likely to be highly volatile given the variability and intermittency of all generation in Scotland; and,
- The current GBECM18 consultation does not consider distributed generation but notes that it will be addressed by National Grid in the future. Therefore a significant amount of Scottish generation at all levels is likely to be affected and the costs of participation in the new model, if implemented, are likely to be disproportionately high for smaller generators.

Scottish Renewables believes that given renewables generators are high-merit order, and usually subject to fluctuations in weather patterns, renewable generators will struggle to

participate effectively in the kind of market for balancing services that National Grid envisages through GBECM18. A renewable generator can curtail its output but cannot guarantee generation when there is a price signal to do so. Further, generators can do little to improve the management of networks, for example to build networks in a more timely manner or improve outage management, to bring costs down.

It is against this background that we raise a serious and fundamental concern that there is little by way of detailed information on how a generator can participate in this process and how it should respond to the, as yet undefined, information it is likely to receive.

### **Conclusion**

Scottish Renewables believes that, given the above, and the expectation of further regulatory change in the future, that the investment case for new renewables generation is undermined by this proposed modification and we fear that the impact would be significant. We would go further and argue that the outcome, whether intended or not, would be, as the BWEA has also argued, to deter not just investment in new generation in northern Scotland but generation across all of Scotland.

### **Further questions**

National Grid poses a number of questions in the consultation document and we will seek to address those that have not been addressed above with the following responses:

#### **Do you agree the timing for Locational BSUoS is appropriate given the imminent proposed changes from Transmission Access Reform?**

Scottish Renewables believes that the rafts of proposals coming through TAR and separately through initiatives like GBECM18 are confusing and potentially contradictory. It would seem sensible to await the conclusions of TAR, and the implementation of its measures, before addressing issues like this. By that time investment in networks are likely to show that the levels of constraints discussed in this consultation and elsewhere are indeed temporary and acceptable.

#### **Do you agree with National Grid's assessment of this proposal against our relevant licence objectives?**

Scottish Renewables has argued that the objectives of the licence should better match objectives set out by Government in the promotion of renewable electricity. Therefore an assessment against the objectives may prove logical but if the objectives are out of date, not entirely relevant or blind to Government policy then it is simply an academic exercise with limited relevance to the world we currently live in.

National Grid's monopoly position does provide it with considerable influence in consultations, modifications and subsequent analysis and so we welcome National Grid's commitment to greater transparency regarding its actions and costs.

#### **Do you agree with the methodology to determine level of Non Compliance on a derogated boundary, if not what improvements could be made?**

No comment.

#### **Do you believe the costs of replacing sterilised headroom should be allocated in the Locational BSUoS charge?**

No comment

Scottish Renewables hopes you find the above comments helpful. If we can help by clarifying any of the points made please get in touch.

Yours sincerely

Jason Ormiston  
Chief Executive  
**Scottish Renewables**