



Chris Bennett
Regulatory Frameworks Manager
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

*Promoting choice and
value for all customers*

Direct Dial: 020 7901 7009
Email: stuart.cook@ofgem.gov.uk

Date: 15 December 2008

Dear Chris,

Decision in relation to the Use of System Charging Methodology Modification Proposal GBECM-11: "charging arrangements for generator local assets"

The Gas and Electricity Markets Authority (the "Authority")¹ has considered Modification Proposal GBECM-11, the issues raised in the Conclusions Report² and the responses to Ofgem's recent Impact Assessment³ undertaken in respect of the proposed modification GBECM-11 to the Use of System Charging Methodology.

On 15 September 2008, NGET submitted the Conclusions Report on Modification Proposal GBECM-11 to the Gas and Electricity Markets Authority (the "Authority") for a decision⁴. The Report recommended to the Authority that the Transmission Network Use of System (TNUoS) tariff is split into local and wider components, and that more specific transmission infrastructure asset costs are applied on the 'local' network in the calculation of a local charge component.

The Authority has decided **not to veto** GBECM-11 on the grounds that the modification proposal better facilitates the relevant objectives and therefore directs that the modification be made. The modification will therefore be implemented on 1 April 2009 as set out in the Conclusions Report.

This letter sets out the background to the modification proposal and explains the proposed modification. It then sets out the framework under which the modification proposal is considered and a decision made, provides a high level summary of Ofgem's impact assessment and the responses received and sets out the Authority's reasons for its decision.

Background

As set out in the GB Security and Quality of Supply (SQSS) design variation criteria, the transmission licensees accord export rights to generators by providing direct connections to the transmission network as well as the deeper transmission infrastructure itself. These are carried out in accordance with the planning criteria for the design of generation or demand connections, and the design of the Main Interconnected Transmission System (MITS) respectively.

¹ The Office of Gas and Electricity Markets is the office of the Authority. The terms 'Ofgem' and 'the Authority' are used interchangeably in this letter.

² Conclusions Report, GBECM-11 for the charging arrangements for Generator Local Assets. Conclusions report is available at http://www.nationalgrid.com/NR/rdonlyres/27F920CA-C678-4D91-A3D1-701E909BDAFB/28281/GBECM11ConcReport_final_HR.pdf

³ Impact assessment is available from the Ofgem website (reference number 147/08): <http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/Charging/Pages/Chrgng.aspx>

⁴ Conclusions Report, GBECM-11 for the charging arrangements for Generator Local Assets. Conclusions report is available at http://www.nationalgrid.com/NR/rdonlyres/27F920CA-C678-4D91-A3D1-701E909BDAFB/28281/GBECM11ConcReport_final_HR.pdf

The generation connection criteria include a set of deterministic requirements which would lead to "secure" connection designs with a certain level of asset redundancy. Onshore, a connection design meeting the minimum "standard" requirements has at least one duplicate element at connection interfaces that could accommodate the full, contracted level of export if one transmission circuit were to be out of service⁵ - e.g. a double circuit design. However, under the provisions of "customer choice" in the SQSS, within certain limitations, all generators can choose to have more or less assets to secure a connection above or below the minimum security requirements. The key limitations are that the design variation must not: reduce the MITS security to below the minimum planning criteria, result in increased costs or reduced security and quality to any particular customer or overall, or compromise the ability of the transmission licensee to meet their licence obligations. Typically, this means that a lower security connection design leads to uncompensated access restrictions.

The change introduced with "plugs" moved the transmission boundary from a "deep" to a "shallow" connection model. This transferred a substantial proportion of the costs associated with the cost of transmission infrastructure assets which are local to generator connections from connection charges funded directly from users to TNUoS charges, which are recovered from all users of the GB transmission system. The TNUoS charges are based on a zonal averaging of long run incremental costs. Under the current rules, whilst individual generators are fully exposed to the consequence of access restrictions that result from their design variations, there is no direct reflection in their TNUoS charges of the capital costs (or savings) associated with variations to connection designs. It is argued that this results in circumstances where generators are less likely to choose the most economic and efficient level of security for their connection design.

GBECM-11 emerged following lengthy industry discussions to improve the ability of the current charging model to provide sufficiently cost-reflective signals to users, so as to enable them to make more economic and efficient choices, better reflecting the implications of alternative connection designs.

Proposed Modification

GBECM-11 involves the introduction of a new transmission charging boundary between local and wider transmission infrastructure assets. This boundary will be identified at MITS substations. These are substations which are either connected with more than four transmission circuits or that are Grid Supply Points (GSPs) connected with at least two transmission circuits.

All generation that is subject to a TNUoS charge and connected to a MITS substation will have a zero value for the local locational element of the TNUoS charge, reflecting a local circuit length of zero, as the nodes defined perform a number of other roles (i.e. supply of demand or interconnection) and design variation is not possible due to the consequential cost impact on other Users.

For generation connected to substations that do not meet the above boundary definition, the proposed approach identifies the "local network" to which a generator is connecting, i.e. those assets whose primary purpose is to facilitate the connection of the generator to the transmission network.

Once the local and wider infrastructure assets are identified, TNUoS charges for all generators will be split into four components, summarised below.

- **'Local' circuit charge.** This charge is derived with reference to the incremental power flows along "local" transmission infrastructure circuit assets between the generation node and the next MITS substation, together with updated generic unit costs for the relevant design and type of circuit for each generation connection. The proposed calculation is consistent with that currently used to calculate TNUoS locational tariffs. A local security

⁵ Offshore the minimum requirements of the SQSS will not require an offshore transmission system providing a connection to have full (or partial) network redundancy.

factor of 1.0 will be applied for single circuit connections, whereas for all other instances the local security factor will be the existing GB average security factor, currently 1.8.

- **'Local' substation charge.** This element of the TNUoS charge is derived from the updated average generic cost analysis of the relevant design and type of local infrastructure substation assets which are required for each generation connection.
- **'Wider' locational charge.** This charge component will be calculated consistent with the existing methodology, based on the existing zonal averaging approaches and the generic cost base of the current charging model. To avoid double counting, the incremental costs along the local circuits will be subtracted from the wider zonal generation cost weighted average on which the wider zonal tariff is based.
- **Residual charge.** This element serves the same purpose as the current residual charges, but will take different values since the reallocation of costs under different components.

The Authority's legal duties and obligations

The Authority's principal objective is to protect the interests of existing and future consumers, wherever appropriate, by promoting effective competition. Under the existing charging arrangements the underlying cost differences that result from a user varying the design of their generation connection when they connect to the local transmission network, are not fully reflected in that user's charges. To the extent to which a modification proposal provides a more cost-reflective TNUoS charging signal within TNUoS charges then it would be expected to result in the building of more economic and efficient transmission network. This has positive implications for existing and future consumers both in terms of the total cost of the transmission network and in relation to environmental impacts.

A full description of the legal framework against which this modification is assessed was set out in appendix 3 of the impact assessment document.

Impact assessment

Section 5A of the Utilities Act 2000 (Duty of the Authority to carry out an impact assessment) applies where: (a) the Authority is proposing to do anything for the purposes of, or in connection with, the carrying out of any function exercisable under or by virtue of Part 1 of the Electricity Act or the Gas Act; and (b) it appears to the Authority that the proposal is important within the meaning set out in section 5A, but does not apply where the urgency of the matter makes it impracticable or inappropriate for the Authority to comply with the requirements of section 5A. Where section 5A applies, the Authority must either carry out and publish an impact assessment or publish a statement setting out its reasons for thinking that it is unnecessary for it to carry out an impact assessment.

In accordance with Section 5A of the Utilities Act 2000, Ofgem undertook an impact assessment on GBECM-11, which was published on 24 October 2008.

Respondents' views

We received eight responses to our impact assessment, none of which were marked as confidential. One confidential annex was received. This section summarises respondents' views on issues raised in the impact assessment. The full responses are available on Ofgem's website.

Specific comments on proposal

Seven of the eight respondents were supportive of the general principle of offering a more cost-reflective charging signal for transmission infrastructure assets, which they agree would

enable users to assess more effectively the cost and charging implications of alternative connection designs and make efficient and economic choices.

Three respondents explicitly stated their support for the implementation of the proposal while another supported the introduction of the proposed local transmission circuit charge but not the inclusion of a specific local substation charge element.

There was varying opinion from respondents on the effectiveness of the proposal in achieving the general principle set out above. The majority of the respondents felt that the proposal goes some way to achieving the stated goal. However, while three respondents commented explicitly that NGET's proposals provide a more cost-reflective local charge, four respondents raised concerns on specific aspects of the proposal that they believed could be improved to charges which are more cost-reflective. These concerns can be summarised in three broad areas:

- a) The proposed MITS boundary definition appears to be arbitrary and does not adequately reflect all situations where assets are being shared with other users, including demand users. One respondent commented specifically that the definition takes inadequate account of the local assets that exist to connect generation only in the radial 132kV network.
- b) The proposed changes would allow generators to choose the level of asset redundancy – setting the local security factor to either 1 for single circuit design or the GB system-wide value (currently 1.8) for the rest does not adequately reflect the specific nature of the design variation for each generation connection.
- c) The proposed inclusion of a local substation element for generator TNUoS charges creates an inconsistency – generator substation charges will be borne by the generator in question, whereas the cost of demand substations will continue to be smeared across residual charges for both generation and demand users. Whilst a number of respondents did not consider this discriminatory, other respondents expressed concern regarding this difference.

Other general comments

One respondent felt that there was not a pressing need to implement these changes from 1 April 2009.

Another respondent felt that this proposal was originally raised to account for an inconsistency between the investment allowed under a TO's price control and the requirements of the SQSS. Specifically, this respondent felt that the TO has not been allowed sufficient revenue to provide generators with the minimum standard of connection to which they are entitled under the SQSS. The respondent did not believe that it is appropriate to engineer a solution to this inconsistency through charging arrangements.

One respondent provided significant comment on an alternative approach to transmission charging recently put forward by the Scottish Government (ECM-17).

Ofgem's views

NGET is required to make proposals to modify that methodology where it considers a modification would better achieve the relevant objectives in Standard condition C5 of the electricity transmission licence: (a) in relation to competition, (b) in relation to cost-reflectivity and (c) taking account of developments in its transmission business. We note that NGET is of the opinion that the modification proposal will better facilitate achievement of the use of system charging methodology relevant objectives (b) and (c). However, in deciding whether or not to veto any proposal the Authority must consider whether the modification better facilitates the achievement of the relevant objectives and must then

consider whether the proposal is consistent with the Authority's principle objective and general duties.

General

An assessment of the impact of the proposals in light of each of the relevant objectives of NGET's electricity transmission licence is set out below. Where relevant, this assessment draws on views expressed by respondents to the impact assessment.

Relevant objectives

SLC C5 5(a) – Facilitate effective competition in the generation and supply of electricity and facilitates competition in the sale, distribution and purchase of electricity

Robust cost-reflective charging arrangements play a central role in promoting efficiency and facilitating effective competition in the generation market.

We consider that competition would benefit from the introduction of more cost-reflective TNUoS charges, particularly for those generators who may not require a fully SQSS compliant connection design such as intermittent, renewable generation.

We consider that GBECM-11 would have a positive competitive effect by creating a potential source of competitive advantage for generators that may not currently be available and reducing the costs of entry for a particular class of new entrant seeking a less secure connection design. We note the concerns raised by respondents over the negative competition effects associated with the increased complexity of the TNUoS charging methodology, the potential differential treatment of users and the application of the proposed local/wider boundary. These points are set out in more detail below.

Competitive advantage

Customer choice is a key principle in encouraging competition in any market. We believe that NGET's proposal provides choice and information for the users to make that choice. We consider that NGET's proposal does this by improving the ability of users to assess more effectively the cost and charging implications of alternative connection designs and location for themselves. We think that NGET's proposal is consistent with this principle because it allows the customer to undertake a more robust assessment of: the level of their transmission costs, the security of their transmission connection, and the consequence of the varied connection design such as the revenue implications associated with uncompensated access restrictions with the loss of a single transmission circuit. We are of the opinion that providing generators with more information on their costs improves their ability to choose the type of connection which is most suitable for their needs and helps better achieve the objective of an economically efficient transmission network.

We note the expectation expressed by some respondents of a reduction in TNUoS charge for generators connected with less secure designs. We note that it is not the objective of the proposed modification to directly incentivise the connection of any specific types of generator (e.g. renewable). Instead, the objective is to produce TNUoS charges that will more accurately reflect the costs of local transmission infrastructure costs resulting from individual generators' choice of the design and location of their connection. Further, the calculation of a local TNUoS charge component may result in a change (upwards or downwards) from the current zonal average cost factors which may have been higher or lower than the revised cost-base level proposed.

We note that for generation that has previously not been exposed to the full cost of their connection and has therefore benefited from the averaged charging approach applied to date (due to the generic average nature of the TNUoS charges), the proposed specific local charge may lead to increased TNUoS charges. However, the opposite is also true, as shown

by the indicative tariffs produced by NGET, where approximately half of the generators that currently pay TNUoS would see a reduction in their overall TNUoS tariff.

We are of the opinion that NGET's proposal is consistent with the stated aim and note that these charging arrangements will apply equally to all generators regardless of location or technology. By providing a more cost-reflective charging signal to all generators across GB we consider the proposed charging arrangements to have a general positive effect on competition in the generation market.

Reducing the costs of entry

We consider that the proposal has the potential to reduce the costs of entering the generation market, by identifying a more accurate impact on relevant assets by splitting out a local network. We recognise that the local charge could be an important factor influencing elements of the connection design and location of generators. By introducing a more cost-reflective signal at a local level, generators are provided with more information on and control over their costs which improves the ability of generators to choose the type of connection which is most suitable for their needs.

As noted above, while the specific aim of the charging modification is not to directly incentivise the connection of any specific types of generator, we recognise that the proposed combination of local circuit and substation charge may be seen to be of particular benefit to small intermittent generators. This is due to the fact that they may be able to better realise and benefit from the trade-off between the cost of transmission capacity and the level of security of the connection. This is expected to reduce the costs associated with the transmission infrastructure investment decisions of generators connecting to the local network over time.

Complexity, transparency and predictability

A potential barrier to competition is the transparency and complexity of the rules under which generators participate in the wholesale market. Charging constitutes one element of those arrangements. The ability for customers to make informed decisions about their connection design and location is further encouraged if generators can see simplicity, predictability and transparency in the charges that they will pay.

We note NGET's attempt to provide clarity through the transparent provision of a more cost-reflective financial signal and improving the ability of users to assess more effectively the cost and charging implications of alternative connection designs. Responses to the Impact Assessment have shown that opinion is split on whether the GBECM-11 is sufficiently simple to understand, transparent and predictable to realise the proposed benefits and how prospective projects will assess local charges as the network changes.

We note that some respondents believe that the implementation of GBECM-11 would lead to more complex charging methodology than those currently applied across GB. However, we believe that this increase in complexity can be justified on the basis that it produces a comparatively larger improvement in the cost-reflective charging signal, and the positive effects this has in facilitating effective customer choice and on competition in general. We consider the combined effect of these factors to be to the benefit of all generators and, ultimately, consumers.

We also note that any additional complexity will be offset by the improvements in the transparency of the supporting information available on NGET's website that is necessary to understand the detail of the local charge component. For example, new and future Users will continue to be able to calculate TNUoS tariffs (both local and wider components) using the publicly available Tariff model and a separate guidance note on the new arrangements is to be produced and published by NGET. We consider the quality and transparency of supporting information to be critical. We will be looking for NGET to work hard to ensure

that generators have all of the information they need to ensure a full understanding of the new charging arrangements.

We note the view that the proposed change may reduce the stability and predictability of TNUoS charges overall. In response, we recognise the increased provision of information proposed by NGET in support of the implementation of the local TNUoS charge calculation. In addition, under the proposed MITS definition, only the construction of additional GSPs or transmission circuits would change a node's MITS status. As a consequence, changes associated with local and wider construction events are expected to be uncommon⁶. We also note NGET's explanation that the impact on future tariff trends associated with such events will be captured within the future annual Condition 5 report in the first instance. We think that these considerations will mitigate the impact of any instability and lack of predictability of TNUoS charges that flows from this proposal. Finally, we note that in parallel NGET intend to produce a geographic map to help potential generation projects to identify the MITS status of their adjacent connection nodes. We also note that NGET intend to publish a detailed breakdown of the Local Charge within the annual Statement of Use of System Charges.

Consistency and non-discrimination

A key consideration in the development of effective competition is that there should not be undue discrimination between participants in the market and arrangements should be consistent, wherever possible and appropriate. NGET's charging arrangements will apply equally to all existing and new generators, regardless of location or technology. We are therefore satisfied that the proposal does not discriminate either in favour or against any class or type of generation user.

There was varying opinion from respondents on elements of NGET's proposal that were felt to introduce differential treatment within the current TNUoS charging methodology. While the majority of the respondents felt that the proposal goes some way to achieving the stated goal, some respondents raised concerns on specific aspects of the proposal in relation to consistency and differential treatment. These concerns can be summarised in four broad areas:

- Definition of the local boundary.
- Treatment of radial connections.
- Treatment of demand and generation; and
- Treatment of spare capacity.

These points are discussed further below.

Boundary definition

We note that a number of respondents have expressed concerns that the derivation and application of the local network boundary definition might be considered to be 'arbitrary'. Some respondents also raised concerns that the application of the definition might lead to confusion when local infrastructure assets are shared with demand customers. These respondents argued that this confusion has the potential to give rise to perverse incentives and inefficient investment. These points are addressed below.

We consider that there is sufficient rationale for the basis on which the local network is defined and how the local charge component is calculated under the proposal. Under the current TNUoS charging methodology, a generator is currently only liable for a zonal average TNUoS tariff. This means that the calculation of its nodal marginal cost, which feeds into the

⁶ NGET advises that such changes are expected at a rate of less than 1 node per year.

average charge calculation, is the same for both a single circuit design variation connection and a fully secure double circuit connection design. The proposed charging arrangements intend to address this issue by providing a more cost-reflective charge for those generators who are making connections decisions that have a direct effect on the level of required transmission infrastructure investment that is triggered from their connection.

To reflect this principle, NGET has developed boundary criteria that are consistent with the SQSS criteria. The SQSS criteria are the determining factor in providing the majority of generator connections. The SQSS identifies the typical point or boundary up to which a User may directly influence in its connection design through design variation, i.e. design variation is only permitted for assets that will not increase costs or affect the standard of security for other Users or the wider system. The definition produced therefore allows differentiation between the nodes that are primarily constructed for local generation ('non-MITS' substations) and those MITS nodes which would be required anyway to accommodate the bulk transfer of power (e.g. GSPs and interconnection points). Generators connected directly to a MITS node will have the largest cost impact on other users due to the interconnectivity of adjacent circuits and therefore the charge for such Users is more appropriately calculated through the wider TNUoS zonal average charge.

We do not agree with the views of two respondents that the local charge component is ambiguous in terms of its application. We note that the proposed charging arrangements are clear in that they do not extend to demand users. We also note that the modification is not proposing any change to the current charging boundary between assets charged under NGET's Connection and TNUoS charging methodologies. Hence, all transmission assets which are currently shared, or could be potentially shared, by more than one user will continue to be defined as transmission infrastructure assets and their costs will continue to be recovered via TNUoS charges. The proposal simply extends the application of this principle into its constituent local and wider components.

Treatment of radial connections

We note the view of one respondent that NGET's definition of a MITS node, aimed at identifying local assets that exist to connect generation only, takes inadequate account of the radial parts of the GB transmission system. We consider that the boundary definition NGET has proposed improves the overall cost reflectivity of the methodology, and in particular results in a more cost reflective local charging signal for generators than that contained in the TNUoS tariff currently applied across GB. Therefore, we consider that the modification meets the critical test in that it better facilitates the achievement of the relevant objectives.

We do not see that the proposed boundary would introduce the potential for less efficient connection designs for those generators connecting to the extremity of the system. As noted above, the current locational element of the TNUoS charge varies to reflect the costs imposed by users of the network, averaged within a set of defined zones for generator users and another set of zones for demand users. We are of the opinion that when considered in conjunction with the existing charging boundary principles (consistent with application of "plugs"), the arrangements will provide a User with a more cost-reflective signal of the costs that they impose on the system. We consider that this will allow users to perform a more accurate comparison of the infrastructure asset savings against their valuation of the additional access that a fully compliant connection would give, ensuring the most efficient and economic connection is constructed.

While we note that the charging arrangements may not produce charges that are the optimal solution or that fully reflect the actual cost savings associated with a less secure design, we believe that the modification better facilitates the achievement of the relevant objectives including that the boundary and charges reflect, as far as is reasonably practicable, the costs incurred for the connection of generators to the local network for the reasons stated above.

Differential treatment of demand and generation

We recognise the issue of shared use of assets within the local transmission network and the different treatment of generation and demand users created by NGET's proposal. However, the alternative of developing a common methodology that is robust to the issue of shared use would require the development of an equivalent specific local charge for demand users to support an approach that more accurately defined shared local asset use. This point was reflected in the comments of two respondents who highlighted that there are positive characteristics of the current generic demand TNUoS charging approach that make the creation of an equivalent specific local charge for demand users more difficult, and possibly less attractive, relative to the generation market. The two respondents cited the example of generation and demand already being charged with a differing infrastructure / connection asset boundary, i.e. demand charges are levied on the demand of the supplier across a whole GSP group. It is therefore harder to allocate specific local asset costs to particular suppliers. The generic locational demand TNUoS charge can be considered to provide a more stable and cost reflective tariff relative to the generic charging approach currently applied to generation users.

In terms of the potential differential treatment of generation and demand users, we note that the immediate effect will be to increase the level of locational specific charge to be recovered from generators (and reduce the residual tariff for generators). Demand tariffs, on the other hand, will remain unaffected by the modification proposal. Furthermore, if an enhanced local signal is successful in ensuring that more economic and efficient decisions are made, then the total revenue collected via TNUoS charges will decrease (73% of total transmission licensee revenue is currently collected from demand customers and 27% from generators) and decrease demand charges. In light of the above, we are not convinced that concerns in relation to the generic demand charging approach, or significant consequential impact on the locational signal for generation and demand represent an obstacle to the introduction of a modification proposal that will create a more cost-reflective signal of the costs that generator connections impose on the transmission system.

One respondent noted that the proposed change would create a situation whereby the cost of demand substations will continue to be smeared across residual charges for both generation and demand users, but generation substation costs will be targeted at the relevant generation users. This respondent believed that this introduced discrimination in treatment between these categories of user. As noted above, we do not consider these arrangements to be discriminatory. Further, we recognise the merits in NGET's argument that in order to ensure the most efficient and economic investment assessment decision can be made, the most cost signals associated with connection investment decisions must be reflected upon a User. We also note NGET's explanation that the proposal is limited to charging arrangements for generation customers because the issues in question are explicitly associated with the local generation connection and not demand. Finally, while we accept that the treatment of the infrastructure substation costs associated with demand connections is different from the proposed treatment of generation substation connection costs, we believe the charging impact of this differing treatment not to be significant.

We recognise that while the charging arrangements of GBECM-11 may not be the absolute optimum solution (i.e. an equal cost reflective signal across demand and generation transmission connections), we consider that the modification results in a more cost reflective local charging signal for generators than that contained in the TNUoS tariff currently applied across GB, and does not reduce the signal for demand customers. We consider that the modification better facilitates the achievement of the relevant objectives and has a general positive effect on competition in the generation market by providing a more cost-reflective charging signal to all generators across GB.

One respondent suggested that the potential to introduce equivalent improvement in the cost-reflective charging signal for demand connections should form part of a separate review. We support this suggestion and expect NGET and industry to consider this issue

fully, for example, when developing an enduring charging solution for embedded generation connections in the forthcoming year.

Treatment of spare capacity

Three respondents agreed with NGET's view that spare capacity should not be taken into account as part of the local circuit charge on the basis that investment in generator only local assets scaled to meet peak export capability. Two of these respondents supported the retention of socialising the cost of 'spare' capacity as a consequence of the shallow connection charging boundary. The other party supported revision to the charge levied on generators for use of the wider system on the basis of a uniform charge based on utilisation.

We note that the proposed treatment of 'spare' capacity for local circuits is consistent with the current charging methodology, i.e. both the additional costs and savings due to user choice are excluded from the local circuit charge calculations which will protect generators from the actions of other users (e.g. connections) or network design decisions made by the licensee⁷. It is also consistent with the treatment of wider 'spare' capacity; additional costs and savings are excluded from locational charge and instead recovered from the residual.

SLC C5 5(b) – Cost reflectivity – charges which reflect, as far as far as reasonably practicable, the costs incurred

In order for competition to be facilitated, charges should accurately reflect the costs that generators incur on the transmission system. We feel it is correct that generator TNUoS charges should as far as reasonably practicable reflect the costs imposed on the system arising from a generators' connection design and location on the network.

We recognise that any attempt by NGET to provide a more cost-reflective signal to users will expose individual users to the transmission infrastructure investment costs and benefits they impose on the local transmission system when they vary the design and/or location of their generation connection, thereby enabling those parties to make efficient decisions on the location and design of their connection. This in turn ensures that the cost of delivery of the transmission infrastructure necessary for the associate transmission works is not, over time, higher than it needs to be. It is these costs which will ultimately be borne by electricity consumers.

There are several aspects of GBECM-11 that are aimed at unwinding aspects of the average generic cost charging approach with the aim of improving the overall cost reflectivity of the methodology, and improve the cost reflectivity of the local charging signal in particular. These include:

- Identifying a more accurate marginal impact on the relevant local transmission assets by splitting out the local transmission network from the MITS and allowing charges to reflect more closely users' choices over generation connection design.
- More accurately calculating the marginal cost of flows along local circuits by replacing the single 132kV Overhead Line (OHL) expansion factors applied in each TO area with four specific expansion factors.
- Deriving the average unit costs on which these 132kV expansion factors are based from updated generic cost data provided by the three transmission licensees reflecting the costs of viable 132kV design constructions on their respective systems.
- Applying a local security factor of 1.0 for single circuit connections and the existing GB average security factor value, currently 1.8, in all other instances.

⁷ Should local system conditions subsequently change, i.e. if further generation seeks a connection in the same location in the future, such that the conditionality of the design variation criteria is no longer satisfied, then alternative arrangements, (e.g. construction of a second circuit) must be put in place. In this instance, the existence of the shallow connection boundary will shield the generator from the full costs of design decisions made by the Transmission Owner for wider system reasons.

- Introducing a range of local substation charge tariffs derived from updated cost data received from the three transmission licensees and categorised against three cost determining factors.
- Introducing a process for reviewing and updating the parameters of the local circuit and substation charge to allow for changes in underlying costs by the transmission companies every five years; and
- By splitting out the generic cost of the substation infrastructure asset of each generation connection substation from the revenue to be recovered via the residual element of the TNUoS charge.

We are of the opinion that these features better facilitate achievement of the cost reflectivity relevant objective. The above features improve the cost reflectivity of the charges to generators and more accurately reflect the costs to users considering connections which are not fully secure or are distant from the MITS boundary while maintaining the advantages associated with the charging arrangements for the use of shared wider assets for the purpose of the bulk transfer of power.

We are of the view that sharpening the cost-reflective signal by revising the cost base on which the marginal cost of flows along local circuits and local substation charges are derived will produce more cost-reflective TNUoS charges that more accurately reflect the costs that past, present and future users impose on the transmission system. This promotes cost-reflectivity by sharpening generators' exposure to the costs they incur on the system and promotes the concept of customer choice and the relative positive competitive pressures this exerts.

We note that some respondents were in favour of implementing specific security factors that would more accurately reflect the costs imposed in a generator's investment decision. Whilst the current proposal may not represent the optimal solution that fully reflects the cost savings associated with variations in some local connection designs, we are of the opinion that the charges produced represent an improvement in reflecting the costs generators impose that result from a user varying the design and/or location of their generation connection when they connect to the 'local' network. Therefore, we consider that the modification meets the critical test in that it better facilitates the achievement of the relevant objectives including that the charges reflect as far as is reasonably practicable the costs incurred.

We also acknowledge the practical difficulties raised by NGET in the development of a specific security factor to radial circuits on the local network. These difficulties dictate that a more complicated solution may be required. For example, the principle behind the charging methodology is to model the transmission network at winter peak demand. NGET considers that multiple circuit partially redundant connection designs are unlikely to have constrained access applied at this peak time. Therefore, NGET is of the view that the specific operational characteristics of the current limited number of partial redundant connections that such arrangements could apply to, coupled with the infrequency of the access restrictions applied at the peak time, justifies implementing a local charge without partial redundancy arrangements at this time. We are of the opinion that, in principle, the current security factor solution, reflecting a reduced security factor for single circuit designs only, better facilitates the achievement of the relevant objectives at this time.

However, we are of the opinion that these factors do not preclude the ability of NGET to derive a more specific security factor applicable to generator connections on the local network. We therefore consider that there is merit in NGET developing this area further with the industry.

SLC C5 5(c) – Properly taking account of developments in the transmission system

We are of the view that the arrangements in GBECM-11 will complement the changing nature of the transmission network, in particular the potential to increase the number of smaller, more intermittent forms of generation connecting at the periphery of the transmission system. They will provide more cost-reflective signals to users to assist in the development of an economic and efficient transmission system.

Other comments

Three general comments were raised by respondents on the scope of the proposal. These include:

- Interaction with the transmission price control arrangements.
- Implementation timescales; and
- Interaction with the transmission charging approach recently put forward by the Scottish Government (ECM-17).

These points are discussed in turn below.

As discussed above, one respondent felt that this proposal was originally raised to account for an apparent inconsistency between the investment allowed under a TO's price control and the requirements of the SQSS. The basis for the development of GBECM-11 was the recognition that the TNUoS charging methodology does not sufficiently reflect the costs imposed by local connection design variations. It was not raised to tackle an inconsistency within the current price control arrangements, which in fact contain sufficient flexibility in the transmission licensees' allowed income whatever choice is made by the generators.

Another respondent felt that there was not a pressing need to implement these changes from 1 April 2009. We note that NGET is required to make proposals to modify the methodology where it considers that a modification would better achieve the relevant objectives in SLC C5 of the Electricity Transmission Licence. It is not clear that this would be achieved with additional delay beyond 1 April 2009 and would actually appear to prevent existing projects being provided with a more cost reflective signal. Further, we note that the implementation of GBECM-11 for April 2009 will act as an enabler for the developments required by the wider transmission access arrangements review and establish a baseline from which any consequential changes required by that review can be made.

One respondent made significant comment on an alternative approach to transmission charging. We consider that debates about the merits of locational charging and the impact on low carbon technologies are best addressed through the industry governance process. On 17 September 2008 Ofgem published a consultation document on the governance arrangements surrounding network charging. This consultation seeks views on whether the right to propose modifications to the transmission charging approach should be open to third parties. Such an approach would potentially allow any network user greater scope to propose a change for consideration by National Grid. It would also allow industry, and ultimately the Authority, to assess the current charging regime and other government policy objectives and how best to address any conflict under the existing statutory framework including relevant European legislation.

New duties under the Energy Act 2008

The Energy Act 2008 (the "Energy Act") contains provisions which, once commenced, will modify the general duties of the Authority in carrying out its functions under the Gas Act 1986 and the Electricity Act 1989. In particular, those changes will mean that, when carrying out its functions in the manner which it considers is best calculated to further its principal

objective, the Authority must do so by having regard to the need to contribute to the achievement of sustainable development equally with the need to have regard to the need to secure that all reasonable demands for electricity and gas are met and that licensees are able to finance their regulated activities.

It has also been highlighted within the text of the principal objective that the Authority's consideration of the interests of consumers includes both future as well as existing consumers.

The Energy Act received Royal Assent on 26 November 2008 but these provisions do not have legal force until they are commenced. We do not yet have a commencement date for the new provisions but it is likely to be early in 2009.

During the period between the Energy Act having received Royal Assent and commencement of the provisions which affect its duties, the Authority must continue to apply the principal objective and its statutory duties in accordance with the Gas Act 1986 and the Electricity Act 1989 as they currently stand (i.e. prior to the Energy Act amendments taking effect), although it will be mindful of the changes that are forthcoming. The Authority already takes account of sustainable development in its decisions but with the change in duties the weight that is attached to such considerations will be increased.

In the case of GBECM-11, Ofgem's impact assessment highlighted that sustainable development is not a material issue and hence our view is that the decision would not, in any event, be affected by the change to our duties.

The Authority's decision

Ofgem considers that the proposed modification would better facilitate achievement of the relevant objectives specified in NGET's electricity transmission licence for the reasons set out above and that it is consistent with the Authority's general duties and obligations. The Authority has therefore decided **not to veto** the modification.

Going forward

The Authority considers that, consistent with its licence obligation to keep charging methodologies under constant review, NGET should consider in light of comments expressed by respondents to both NGET's consultation and Ofgem's impact assessment, further developments in this area which could better facilitate the achievement of the relevant objectives. One factor which the Authority considers relevant in the context of NGET keeping this issue under review is the development of a more specific security factor applicable to generator connections on the local network. We are open to receiving views from industry on changes to the charging methodology which are judged necessary.

Please contact me on the number above, or Anthony Mungall on 0141 331 6010, if you have any queries in relation to the issues raised in this letter.

Yours sincerely



Stuart Cook
Director of Transmission

Signed on behalf of the Authority and authorised for that purpose by the Authority