

Modification proposal:	Use of System Charging Methodology Modification Proposal GB ECM-24: "Modification proposal to Transmission Network Use of System Charging Methodology to update charging arrangements associated with Offshore Transmission Networks"		
Decision:	The Authority has decided not to veto Modification Proposal GB ECM-24		
Target audience:	All transmission system users, including offshore transmission users, and all other relevant stakeholders		
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Background to the Modification Proposal

Standard licence condition (SLC) C5 ('Use of system charging methodology') requires National Grid Electricity Transmission plc (NGET) to keep the Use of System Charging Methodology under review at all times and to make proposals to modify the methodology where it considers that a modification would better achieve the relevant objectives¹ in relation to: 1) facilitating effective competition, 2) reflecting the costs incurred by transmission licensees in their transmission businesses, and 3) taking account of developments in the transmission licensees' transmission business.

GB ECM-08² established the principles and approach to be adopted in the charging arrangements to allow the recovery of the costs of transmission infrastructure assets required to facilitate the connection from a generating site located in offshore waters to the onshore network. These charging arrangements were developed with industry and subject to an Authority Impact Assessment consultation³. The Authority decided not to veto GB ECM-08⁴ on 30 March 2009.

The general approach adopted by GB ECM-08 (which was established so that offshore charging, where appropriate, practicable and reasonable, would remain consistent with onshore charging), was for the methodology to expose users to the cost implications of their decisions.

Following the Authority's decision not to veto GB ECM-08, NGET approached a number of offshore developers to gather asset information data with a view to populating the offshore methodology and producing indicative local offshore tariffs.⁵

In the process of applying the principles that underpin the derivation of offshore Transmission Network Use of System (TNUoS) tariffs as established by GB ECM-08, NGET identified a number of issues. NGET is of the opinion that these issues restrict the achievement of the principles and the approach to be adopted offshore (as established in GB ECM-08). Accordingly, NGET has identified aspects of the methodology that would benefit from further clarification and modification. The updates associated with GB ECM-24 seek to address these issues.

The Modification Proposal

On 18 June 2010, NGET submitted a Conclusions Report ("the Report") on Modification Proposal GB ECM-24 to the Authority for a decision. The Report recommended to the Authority that a number of clarifications and changes are required to the Statement of the Use of System Charging Methodology in relation to the way transmission network use of system

¹ The relevant objectives are set out in SLC C5 (c) of NGET's Transmission licence

² GB ECM-08 conclusions report is available from NGET's website: http://www.nationalgrid.com/NR/rdonlyres/BB54C616-52B7-4DBC-80D4-41BCEAADCE9E/30891/GBECM8ConcReport_final.pdf

³ <http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/Charging/Documents1/090204GBECM08IA.pdf>

⁴ <http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/Charging/Documents1/ECM08%20Decision%20letter%20V8.pdf>

⁵ This data was also used by NGET to take a view of the revenues that it will collect on behalf of offshore transmission owners and the revenue received from offshore users in setting tariffs for 1 April 2010. The 2010/11 tariff statement is available from NGET's website.

tariffs are calculated for offshore users. The updates proposed by NGET, which are set out below, fall into two categories:

- (i) Clarifications to the methodology, and
- (ii) Changes to the methodology.

Clarifications to the methodology

NGET has proposed three clarifications to the methodology:

1. Including interest charges during project construction (IDC) and project overheads into offshore asset values. As these costs are project specific, NGET considers that such costs should be locationally reflected through the offshore tariff. Where costs remain unable to be attributable to a particular asset category, NGET proposes to pro-rate the value of IDC and project overheads across the various cost categories on the basis of the relative cost of each category.
2. Including in the cost of recognisable asset components, project costs that are not attributable to a recognised asset category within the methodology (i.e. transformer, switchgear, etc.). NGET propose that this inclusion is achieved by pro-rating on the basis of asset value, unless better information is provided.
3. Revising the methodology text associated with offshore expansion factors to make explicit that High Voltage Direct Current (HVDC) converter costs will be included as part of the local circuit component of the tariff for projects that utilise HVDC assets. This reflects the position previously consulted upon and endorsed by the Authority under GB ECM-08.

Changes to the methodology

4. Revising the method utilised to determine the rating of the platform component used in the offshore substation local tariff calculation. NGET propose to adopt the lower of the switchgear or transformer ratings instead of the 'higher' of the two ratings. NGET considers this provides a better indication of platform utilisation.
5. Making clear that the costs of asset spares will be added to the component of offshore revenue with which the spare is associated for the purposes of calculating the offshore tariff. Unlike onshore, many of the asset spares can only be deployed to a particular offshore system due to non-standard specifications.
6. Revising the methodology relating to offshore circuit expansion factors to introduce harmonic filtering equipment into the offshore local circuit revenue. NGET highlights that this approach is consistent with the treatment of harmonic filtering equipment onshore where this is funded by the User.
7. Introducing into the methodology a pass through of any historic Distribution Network Owner (DNO) capital contributions that form part of an Offshore Transmission Owner's (OFTO) tender revenue stream through Embedded Transmission Use of System (ETUoS) charges where relevant for transitional projects.
8. Revising the methodology associated with ETUoS charges to allow for the pass through of distribution charges not applied on the basis of a generators capacity.

NGET's recommendation

NGET is seeking to implement Modification Proposal GB ECM-24 from the date that the Authority issues a decision not to veto. Further detail on Modification Proposal GB ECM-24 can be found on NGET's website www.nationalgrid.com.

In the Report to the Authority, NGET has explained that after consideration of responses, it considers that the clarifications and modifications to the Statement of Use of System Charging Methodology, will better achieve the relevant objectives (a), (b) and (c) as specified in NGET's electricity transmission licence.

The Authority's decision

The Authority is required to assess any proposed modification to NGET's Use of System Charging Methodology and decide whether to issue a direction to veto such a change.

The Authority has considered the issues raised by Modification Proposal GB ECM-24 and in reaching a decision, the Authority has taken into account the views put forward by industry as well as assessing the modification and clarifications against the relevant objectives of NGET's electricity transmission licence. The Authority has concluded that on balance:

- Implementation of GB ECM-24 would better achieve the relevant objectives of NGET's electricity transmission licence; and
- Implementation of GB ECM-24 is consistent with the Authority's principal objectives and wider statutory duties.

The Authority has therefore decided **not to veto** the proposed modification.

Reasons for the Authority's decision

The Authority considers that the clarifications and changes proposed through GB ECM-24 do not seek to alter the principles established by GB ECM-08. Instead, we consider that GB ECM-24 further clarifies the principles established by GB ECM-08 by removing ambiguities over TNUoS charging components and by making clear in the methodology how costs will be treated. We consider that this provides more certainty over predicting exposure to offshore charging.

Against this background, in this section, we set out the key issues that informed the Authority's decision and the Authority's assessment of GB ECM-24 against both the relevant objectives specified in SLC C5(5) of NGET's electricity transmission licence and its statutory duties. These sections contain reference to respondents' views where appropriate.

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

We consider that overall, the clarifications and methodology changes associated with GB ECM-24 better achieve SLC C5(5)(a).

We support the principle of cost-reflective charging. In general, competition is more likely to be effective if costs which parties impose are reflected in the charges they pay and thus are appropriately factored into their commercial decisions. The application of these principles is expected to promote efficiency and facilitate effective competition in the generation market. In broad terms, the proposals could impact on competition by:

- Providing consistent charging arrangements to offshore transmission, impacting on the basis upon which onshore and offshore generation compete with each other;
- Impacting on the costs of entry for a particular class of user, namely a material impact on the economics of offshore projects that are in development or that have been completed; and
- Impacting on the predictability and stability of tariffs.

The extent to which the proposed clarifications and changes contained within GB ECM-24 influence these factors are set out below.

Consistent charging arrangements

We note that some respondents expressed concerns about the proposed revision of the method utilised for deriving the platform rating used in the offshore substation local tariff calculation; as set out above NGET has proposed adopting the 'higher' of the switchgear or transformer ratings as opposed to the 'lower' of the two. We consider that the changes proposed in GB ECM-24 are intended to make the charging arrangements offshore more consistent with the existing arrangements onshore. This reduces the risk of discrimination between participants in the market. We are of the view that GB ECM-24 is likely to have a limited but broadly beneficial impact on competition in the generation market.

Impact on the costs of entry

We note that a number of respondents raised concerns with the proposed revision to the method utilised for deriving the platform rating. These respondents argued that the proposals would have a material impact on charges for offshore transmission upon which investment decisions have already been made and have a material impact on the economics of projects that are in development or that have been completed. This impact arises because this change would result in fewer costs being socialised.

We also note that one respondent agreed the existing method is likely to overstate the capability of the platform and therefore agrees with the change to use the minimum of the switchgear and transformer ratings.

We acknowledge the response of NGET which explains that, in the majority of cases, switchgear ratings will be used under the existing methodology and that utilising the 'higher' of the transformer and switchgear ratings to determine the rating of the platform would be likely to lead to an overstatement of the maximum asset capability (due to the function of switchgear) and thus unjustifiably increase socialisation of the offshore platform across all users. As such, NGET is of the opinion that the existing methodology could lead to an inappropriate level of socialisation of substation asset costs and could lead to inefficient investment decisions by developers.

NGET assessed the illustrative average increase in the local tariff component that would arise from this proposed change. We note that in the Report to the Authority, NGET revised an earlier estimate of the illustrative average increase in the local tariff component downward from 14% to 9% across a simple set of transitional projects. NGET recognise however that for a very small number of individual projects the percentage increase in the local portion of the tariff may be greater than this.

We recognise that the proposed changes to the substation local tariff calculation may increase the level of local charge that offshore generators will face. We note that NGET has an obligation to keep the charging methodology under review and that there can be no expectation on the part of developers that the methodology is immutable. We consider that competition can be more effectively promoted if the charges for a service better reflect the incremental costs of providing it. In this instance, we consider that more effective competition would be encouraged if the levels of the local charge, including the substation component, reflect the costs imposed on the transmission system by users when compared with the impact of retaining the existing arrangements. We are therefore satisfied that GB ECM-24 is likely to have a general positive effect on competition in the generation market by allowing offshore and onshore generation to compete with each other on a level playing field.

Finally, we note that by reflecting these platform costs through an infrastructure, rather than connection or socialised charge, generators remain protected both from the actions of other generators and from OFTO investment made for wider strategic reasons (in that the generator only pays for that proportion of the assets that it is using).

Predictability and stability of tariffs

One respondent noted that the example tariffs provided by NGET as part of its consultation process were highly speculative since NGET does not yet know the required revenue streams of the OFTOs to be appointed.

We note that this is the case and once these are known there will be a further impact on the tariffs. However, we are of the view that it is for NGET to remove ambiguities that have arisen over treatment of costs categories related to offshore. As a result of gathering additional data on offshore projects and applying this to the methodology NGET has identified practical difficulties that require correction to ensure that appropriate offshore charges can be set. We consider that the changes proposed through GB ECM-24 will remove these ambiguities and ensure that the calculation of charges is more predictable and will improve a generator's ability to form their own view on future charges.

The Authority is of the view that the general benefits associated with the introduction of more cost reflective charging arrangements would be expected to promote more effective competition overall.

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

We consider that the clarifications and methodology changes associated with GB ECM-24 better achieve SLC C5(5)(b).

We consider that it is appropriate that generator TNUoS charges should, as far as reasonably practicable, reflect the costs imposed on the system which arise from the commercial choices (on connection design and location of their assets) made by offshore generators. We recognise that any attempt by NGET to provide a more cost reflective signal to users will expose individual users to the cost implications of their decisions. This will help 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 required transmission infrastructure is not higher than it needs to be. It is these costs which will ultimately be borne by electricity consumers.

As set out above, there are several aspects of GB ECM-24 that are aimed at improving the overall cost reflectivity of the methodology and the cost reflectivity of the offshore local charging signal relative to the onshore charging regime. These include:

- Revising the method utilised in determining the rating of the platform component used in the offshore substation local tariff calculation to adopt the 'lower' of the two ratings to provide a better indication of platform utilisation.
- Including the costs of asset spares to the component of offshore revenue with which it is associated for the purposes of calculating the offshore tariff.
- Revising the methodology relating to offshore circuit expansion factors to introduce harmonic filtering equipment into the offshore local circuit revenue.

We are of the opinion that the above features improve the cost reflectivity of charges to offshore generators.

In terms of the offshore substation local tariff calculation, by seeking to provide a more cost reflective charging signal to all generators across GB (because a category of offshore costs are no longer socialised), we consider that GB ECM-24 is likely to have a limited but beneficial impact on competition in the generation market. This is expected to reduce the costs associated with the transmission infrastructure investment decisions of generators connecting to the local network over time.

In respect of harmonic filtering equipment, we are aware that a network operator is able to connect a load that causes harmonic distortion outside of the acceptable limits defined in

Engineering Recommendation G5/4. We also note that in general, the party seeking to connect a distortion-causing load is responsible for meeting connection conditions specified by the network operator to reduce the level of distortion. We recognise that offshore, it is much more likely that there will be occasions where the OFTO is prepared to offer an efficient harmonic filtering solution for harmonics arising from the offshore generator's installation as part of the overall design of the offshore transmission system. Therefore, we consider that it is appropriate for NGET's Use of System Charging Methodology to explicitly take account of any OFTO revenue associated with harmonic filtering and for those charges to be recovered from the generator.

We note that one respondent expressed specific concerns that the proposals seem to be focused mainly on reducing the amount of socialisation rather than being consistent with NGET's charging principles. While the current proposal may not represent the optimal solution that fully reflects the costs and benefits of a particular local connection design, we are of the opinion that the charges produced represent an improvement; charges will better reflect the costs generators impose when they connect to the 'local' network offshore. Therefore, we consider that the modification meets the test in that it better achieves the relevant objectives including that charges reflect as far as reasonably practicable the costs incurred.

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

We consider that the clarificatory and methodology changes associated with GB ECM-24 better achieve SLC C5(5)(c).

We are of the view that the clarifications and modifications detailed in GB ECM-24 will complement the changing nature of the national transmission network, in particular by clarifying further and refining the use of system charging arrangements required for the introduction of the regulated offshore transmission networks in 2010.

We consider that GB ECM-24 is compatible with the developments in NGET's transmission business in relation to its role and responsibilities as designate system operator for offshore transmission as well as the wider development of the regulatory framework for offshore transmission.

Assessment against the Authority's statutory objectives and duties

As well as evaluating how the GB ECM-24 would facilitate the relevant objectives, the Authority must consider whether the implementation of GB ECM-24 is consistent with its principal objective and statutory duties.

We note that the process adopted by NGET is aimed at providing more transparency and predictability over setting charges to recover the costs of offshore transmission infrastructure assets.

We are of the view that GB ECM-24:

- Will expose all users to relevant and appropriate costs which should allow offshore users to make more informed decisions over the management of their costs which, in turn, should result in more stable and predictable offshore charging;
- Will send out sharper cost reflective signals. The impact of this is that the total costs of the offshore transmission system is likely to reduce over time, to the benefit of generators and electricity consumers;
- Is likely to support more effective competition than otherwise would be the case; and
- Will not have a material impact on sustainable development or security of supply.

Overall, we consider that GB ECM-24 is consistent with the Authority's principal objective and statutory obligations. On this basis we consider a decision not to veto is justified.

Our assessment overall

We consider that GB ECM-24 does better achieve the relevant objectives, and is consistent with the Authority's statutory duties.

Decision notice

In accordance with, the Authority has therefore decided not to veto Modification Proposal GB ECM-24.

We expect NGET to implement the modification proposal immediately; hence the modification will take effect immediately to coincide with the date of this decision as requested by NGET.

We note NGET's decision to develop options for the treatment of operational costs associated with reactive compensation in a broader context. We are aware that consideration of this issue has been included within the terms of reference for the Connection and Use System Code (CUSC) Balancing Services Standing Group (BSSG) and note the presentation material used at the June 2010 BSSG meeting.⁶ We expect this matter to be progressed in a timely manner.

Stuart Cook



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Signed on behalf of the Authority and authorised for that purpose

⁶ Further information is available on NGET's website:
<http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandinggroups/bssg/index.htm>