

# **REPORT TO THE AUTHORITY**

**GB ECM-26**

## **Review of Interconnector Charging Arrangements**

**Date of issue: September 2010**

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# 1 Executive Summary

This conclusions report sets out National Grid's proposals for an update to the charging arrangements for Interconnectors. The need for the proposed changes is driven by EU Regulations and the formal adoption of associated guidelines.

Under the current charging methodology, National Grid charges all parties liable for charges for the injection and off-take of power onto the GB electricity system without differentiating as to how that injection or off-take is achieved.

However, the EU arrangements for a Single Integrated Market in Electricity introduces separate arrangements for compensation for cross border flows on Interconnections between member states that are intended to replace individual access charges at each border (pancaking).

Consequentially, National Grid proposes to change its TNUoS charging methodology to better reflect the EU Regulation requirements.

The proposed changes to the methodology are:

- Interconnectors are treated as envisaged in EU Regulations i.e. they are not defined as generation or consumers (demand) and thus are not liable for either TNUoS demand and generation charges;
- Interconnector flows are not included when determining the Triad demand periods upon which GB demand charges will be calculated however their capacity to import and support the GB transmission system will continue to be modelled in the transport model as they currently are.

Adopting the proposed changes ensures compliance with both UK and EU regulatory requirements and brings the UK treatment of Interconnectors in line with the rest of Europe. It also recognises the formal adoption of a mandatory Inter TSO Compensation mechanism intended to compensate TSOs for cross-border flows established under EU Regulation 1228/2003 (to be replaced by 714/2009, effective 3<sup>rd</sup> March 2011).

Unless directed otherwise, the above proposals will be incorporated into the charging methodology statements to take effect as of 5<sup>th</sup> October 2010, applicable to the charging year beginning 1<sup>st</sup> April 2010.

National Grid published a consultation report to the industry on 20<sup>th</sup> July 2010. Twenty three written responses were received, a summary of which can be found in Section 5. One response was marked as confidential. The consultation and the full non-confidential responses have been published on the National Grid charging website.

## 2 Introduction

As the transmission licensee, authorised to co-ordinate and direct the flow of electricity onto and over the transmission system within Great Britain, National Grid has duties under the Electricity Act to develop and maintain an efficient, co-ordinated and economical transmission system and to facilitate competition in generation and supply.

Along with these high level duties, National Grid is obliged under its transmission licence:

- to keep the Use of System Charging and Connection Charging Methodologies at all times under review
- to make such modifications of the Use of System Charging Methodology as may be requisite for the purpose of better achieving the relevant objectives, which are:
  - a. to facilitate effective competition in generation and supply;
  - b. to result in charges which reflect, as far as reasonably practicable, the costs incurred by transmission licensees in their transmission businesses;
  - c. in so far as is consistent with a) and b) above, as far as reasonably practicable, to properly take account of the developments in transmission licensees' transmission businesses.

In addition to the relevant objectives above, the transmission licence also prohibits National Grid from discriminating against any User or class of Users unless such different treatment reasonably reflects differences in the costs of providing a service.

National Grid is also required to comply with EU legislation. It is application of EU Regulation and formal adoption of guidelines established through this legislation that leads to the changes proposed in this report.

The purpose of this consultation document is to describe changes to the TNUoS charging methodology in respect of the treatment of interconnectors with a view to better meeting the requirements set out above.

## 3 Background

### 3.1 Requirement for change

With the expected formal adoption of guidelines under the EU Regulation aimed at promoting a Single Internal Market in Electricity, National Grid has conducted a review of the charging methodology to assess its alignment with reference to both EU and UK regulatory requirements.

National Grid currently treats all parties connecting to the GB transmission system in a similar manner and in that respect Interconnectors are treated as if they were a GB Power Station directly connected to the GB transmission system i.e. liable for both export and import charges. EU Regulations however define Interconnectors, generation and consumers (demand) in a manner that requires Interconnectors to be treated separately from other parties connected to the GB Transmission system.

With regards to Interconnectors, the principal EU legislation and requirements are set out in:

- Regulation EC No 1228/2003<sup>1</sup> on condition for the access to the network for cross border exchanges in electricity; and
- Regulation EU No 714/2009<sup>2</sup> on conditions for access to the network for cross border exchanges (repealing 1228/2003), that entered into force in July 2010 and applies from 3rd March 2011

For the avoidance of doubt, a reference to “the Regulation” means Regulation EU No 714/2009<sup>3</sup>, however equivalent clauses are also within the current 1228/2003 regulation.

The aim of the Regulation is to set out fair rules for cross-border exchanges in electricity, thus enhancing competition across all Member States. In so doing, it provides for the creation of an Inter-TSO Compensation (ITC) mechanism to be made binding in all Member States through the “comitology” procedure. The ITC mechanism that we expect to become mandatory within the current financial year provides compensation to Transmission System Operators (TSOs) who host “cross border flows” and this is funded by TSOs on whose systems those flows originate or terminate. Essentially, where a TSO is a net exporter or importer of electricity it will pay the costs of other TSOs who host these flows. The TSO whose system “leads” to the flow is then responsible for passing these charges on to its host demand or generation benefiting from the import or export.

Directive 2003/54/EC concerning common rules for the internal market in electricity is also referred to below as it provides additional definitions of terms used within the Regulations.

### 3.2 Issues considered

In conducting this review, National Grid considered and consulted upon three issues:

- a) The definition of Interconnectors as a class of User in respect of National Grid’s licence obligations and in the context of the Regulation;
- b) The subsequent applicability of TNUoS charges to Interconnectors within the Charging Methodology; and

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<sup>1</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:176:0001:0010:EN:PDF>

<sup>2</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0015:0035:EN:PDF>

<sup>3</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:176:0037:0055:EN:PDF>

- c) The assumptions made on Interconnector flows in the derivation of GB tariffs and calculation of charges.

### 3.3 Background - TNUoS Charges

TNUoS tariffs are calculated annually on an ex-ante basis in accordance with the charging methodology. The methodology is approved by the Authority and is available from the National Grid website along with the annual tariffs derived from its application.

The revenue recovered under TNUoS is split between generation (27%) and demand (73%). The TNUoS tariff that is used to collect this revenue contains both a locational element and non-locational (residual) element. The aim of the locational component is to provide a signal that reflects the impact that Users at different locations would have on transmission investment. The non-locational element permits transmission asset owners to recover the remainder of their Maximum Allowed Revenue (MAR) as agreed with the Authority. NGET recovers these revenues on behalf of all GB transmission asset owners. In addition, MAR includes the ITC charge to GB that reflects the net cost that GB imposes on external systems.

Users that inject power onto the GB Transmission System are subject to annual charges reflecting the costs associated with provision and utilisation of the GB Transmission System. Currently in respect of a Power Station or an Interconnector their export charge is based on their Transmission Entry Capacity (TEC) and their import charge is based on their net import as described below.

Unlike export, there is not an ex-ante explicitly stated capacity for import. To provide an equivalent proxy capacity for import to charge users, half-hourly (HH) demand charges are based on the metered consumption on the three highest demand periods occurring during November to March; each peak period being separated by at least 10 clear days (this is known as the Triad). Non half-hourly (NHH) demand charges are based on the apportioned metered energy over 16:00 to 19:00 over the same period (based on second tier metering systems).

### 3.4 Treatment of Interconnectors

As set out in NGET's licence, non-discrimination is a cornerstone within the GB framework, providing a level playing field for all users to ensure the most efficient outcome for end consumers (i.e. all users are exposed proportionally to the costs they cause). Under the existing TNUoS methodology, Interconnectors are treated in the same manner as any other User.

However, the Regulation defines an Interconnector as "a transmission line which crosses or spans a border between member states and connects transmission systems of member states". As such, a distinction must be drawn between Interconnectors and host producers (generation) / consumers (load).

Furthermore EU Directive 2003/54/EC defines a producer as 'a natural or legal person generating electricity' and whilst this directive does not define a 'consumer', it refers to 'customers' as the point of consumption. Therefore, in the context of the EU Internal Market in Electricity, Interconnectors are neither producers nor customer, but part of the overall transmission infrastructure facilitating the wider market.

Consequently, and in the context of the formal adoption of an ITC mechanism, we believe that there is sufficient justification now to treat Interconnectors differently. In the context of the charging arrangements this is that Interconnectors should no longer be treated as a GB producer or GB consumer and therefore TNUoS charges should no longer be applied to them.

### 3.5 GB Demand Tariff derivation

Demand charges for half-hourly users are determined using the Triad methodology outlined above and currently, the export of energy from the GB system by Interconnectors contributes the setting of the relevant Triad periods.

Given that, under the Regulation, Interconnector flows are neither classed as production (generation) nor consumption (demand), it follows that any export from the GB system is not GB demand.

Removing Interconnector exports from the definition of Triad demand would ensure that the GB tariff is based on net GB demand rather than any wider European market influences. It is therefore proposed that exports from the GB Transmission system caused by Interconnectors are excluded when determining the Triad periods.

### 3.6 Derivation of locational signal from the transport model

In regards to the transport model, it is assumed that the generation and demand background, including interconnector capacities, will remain substantially unchanged. The capability of an Interconnector to supply the GB market will continue to be taken account of in Investment planning for the transmission system. The real time flow will obviously be dictated by the real time market operation and System Operator redespach decisions.

Consequentially, there would be no changes to the underlying transport model data when determining the locational element of the tariffs. This results in representing the interconnector capacity in the transport model so that the full potential contribution of the interconnectors to demand security and potential benefit to investment planning at peak is modelled. This approach is consistent with that taken for generation, notwithstanding the point that an interconnector is not a generator i.e. we model plant capacity rather than any forecast flow. This recognises that for demand security or to manage network flows that National Grid may be the initiator of the flow in either direction on the interconnector at the relevant market price.

## 4 Final Proposal

In summary, and for the above reasons, it is proposed that:

- Interconnectors are treated as envisaged in EU Regulations i.e. not as generation or demand and thus not liable for either TNUoS demand and generation charges;
- Interconnector flows are not included when determining the Triad demand periods upon which GB demand charges will be calculated however their capacity to import and support the GB transmission system will continue to be modelled in the transport model as they currently are.

It is intended that these changes would be applicable to the current charging year, 2010/11 charges for Interconnectors would be calculated on this basis.

On a full year tariff, the overall effect of removing Interconnectors from the generation and demand charging base is that generation tariffs would increase by approximately £0.04p/kW for all generation zones and half-hourly metered demand tariffs would increase by approximately £0.02p/kW for all demand zones. Changes to tariffs for non half-hourly metered demand are minor at less than £0.003p/kWh.

To demonstrate the impact of the proposal on tariffs Appendix 1 contains recalculated indicative tariffs for 2010/11, including only the proposed changes to the original calculation i.e. ignoring any updated to TEC, demand forecast or forecast

MAR following calculation of the published 2010/11 tariffs . Separately, National Grid is reviewing the need to carry out a mid year tariff change as a result of unrelated changes, mainly changes to forecast MAR as a result of the offshore regime. Should a mid year change take place National Grid would seek to include these proposals within the revised tariffs to ensure the most accurate recovery, however National Grid does not propose to change tariffs within the current year to solely incorporate this proposal.

In further considering the issues in the representations made as a result of consultation National Grid has changed the proposal regarding the background flows modelled in the transport model. The change better reflects the process currently undertaken in design with respect to assumptions on the interconnector and also provides better stability and predictability for GB users.

#### **4.1 Changes to statement of the methodology**

Appendix 2 provides the detailed changes to statement of the methodology to incorporate the proposals.

Essentially, the changes required to the Charging Methodology involve removing references to interconnector asset owners as parties liable to for TNUoS charges from:

- Chapter 4, Demand Charges;
- Chapter 5, Generation Charges;
- Appendix TN-5 Classification of parties for charging purposes; and
- Appendix TN-6 – Transmission Network Use of System Flowchart

There were no changes made to the proposed textual changes to the statement of the methodology as a result of the consultation

## **5 Consultation**

### **5.1 Consultation process**

National Grid published the consultation on the proposals on 20 July 2010 and received 23 responses of which one was Confidential. Full responses, other than that indicated as Confidential, can be found on the National Grid web site:

<http://www.nationalgrid.com/uk/Electricity/Charges/modifications/uscmc/>

The treatment of Interconnectors in respect of TNUoS charges was also discussed at the Transmission Charging Methodology Forum meeting held by National Grid on 21<sup>st</sup> July 2010. A summary of the meeting and presentations are also available on the National Grid website:

<http://www.nationalgrid.com/uk/Electricity/Charges/TCMF/>

### **5.2 Summary of responses**

Of the responses received, the large majority were supportive of the proposal. The remaining offered qualified responses in that they either supported or acknowledge the aims of the proposal but expressed concerns that implementing this change would raise other GB market issues.

A summary of each response is provided in Appendix 3.

### 5.3 Issues relating to the treatment of Interconnectors and removal of TNUoS Charges

The large majority of respondents agreed that the removal of TNUoS charges from Interconnectors would result in increased cross-border trades and more competitive energy prices and thus better facilitated competition.

Two respondents believed that the proposal failed to meet this objective by potentially distorting the GB market and encourage generation to locate outside of it. Views were also expressed that treating interconnectors differently from other Users was potentially discriminatory.

#### *National Grid's view*

National Grid believes that with the introduction of the third package (714/2009) and the adoption of the ITC guidelines under the second package (1228/2003) it is clearly established that Interconnectors are distinctly different to other GB transmission users and therefore is not discriminatory to treat Interconnectors differently under the GB framework.

Whilst we recognise the issues raised by respondents in respect of the potential competitiveness of GB generation with their European counterparts, the mandatory ITC scheme is being put in place to address these concerns. The overall effectiveness of the ITC mechanism is an issue for the European Commission and we would expect this to be kept under review and updated should it result in the frustration of competition. How payments into this scheme are provided by generation and demand on external systems, and thus the overall competitiveness with the European market, is a matter for external regulatory authorities with respect to their obligation under the Regulation.

We would also anticipate that the wider issues arising from concerns about GB competitiveness in a wider EU market would be taken into consideration within the forthcoming Charging and Connections review.

One respondent believed it was the nature of Triad charges that was at issue rather than access charge per se (i.e. ex-post determination of demand capacity versus pre-defined generator capacity based on TEC).

Some respondents also stated that they did not believe that the proposal met National Grid's cost reflective obligation in that it removed the incentive for Interconnectors to site close to areas of high demand and that the methodology would no longer reflect the impact of *all* users on the transmission system.

#### *National Grid's View:*

In respect of the EU Regulation, it is the definition of Interconnectors and therefore the appropriateness of TNUoS charges that is at issue. Whereas Triad charges may highlight the issue due to their "avoidable" and variable nature, both Triad and generation TEC charges are considered as access charge and therefore within the context of a fully implemented EU regulation are not appropriate.

The nature of the demand charging regime in particular may lead to reduced export from GB at peak (Chart 1 below). The linkage to the energy market through focused peak charging will intern depress the peak GB energy market price through limiting the demand base and thus act as a disincentive to generation investment in GB. In the medium and longer term increased production capacity on the GB system, along

with greater interconnection capacity, will result in a more sustainable, secure and competitive market for GB consumers.

Within the Regulatory framework, the ITC mechanism is the means by which TSOs are compensated for the impact of an interconnector on their transmission systems.

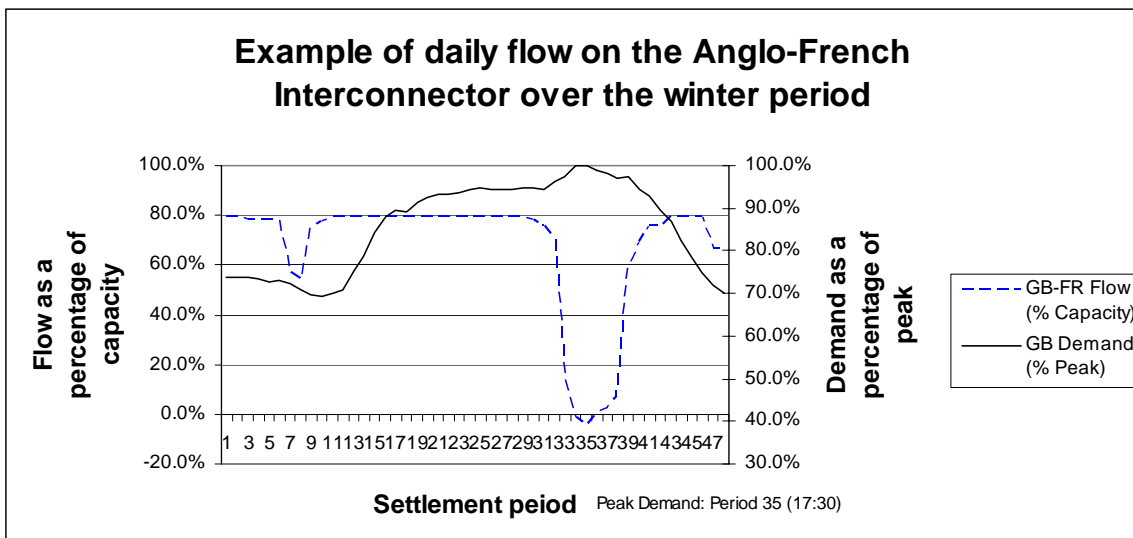
**5.4 GB Demand & Treatment of Interconnector flows**

A number of respondents explicitly supported National Grid’s proposal to remove any Interconnector exports when determining the GB Triad periods, the remainder were silent on this aspect.

A number respondents noted that the proposal to model the expected flow over peak would possibly result in greater locational differentials if, in particular, the flow reversed on southern interconnectors to exporting from GB over peak. This could potentially have a greater impact on charges than that shown in the consultation.

*National Grid view*

We agree that if the interconnectors exported over peak this would change the background flows and this would in turn have an impact on tariffs as originally proposed. Modelling suggests that if full export on the French interconnector was assumed then northern tariffs have the potential to increase by £0.58/kW per annum. In reviewing the actual flow over peaks we are aware that currently the French interconnector has been exporting out of GB and then it reduces to around zero for a short duration over peak. This is shown in Chart 1 below.



**Chart 1 – Daily flow on Anglo-French Interconnector over normal winter day**

We have been led to believe that the change in behaviour shown above is mainly attributable to Triad charge avoidance by Interconnectors although other factors may also have an influence. Operationally, should the Interconnector export need to be curtailed or even driven to import to GB for demand security, National Grid could either contract for this short period with parties on external systems or directly as a System Operator to System Operator service. Therefore the potential flexibility provided by the Interconnectors and the commercial arrangements on them need to be recognised i.e. it is not necessarily forecast flow, but available capacity that is important.

National Grid also recognises concerns over the assumptions made about the operation of the interconnectors and the potential flexibility that they provides in supporting demand security, and hence their impact on long term investment. We understand that these issues are being explored through the SQSS Fundamental Charging Review.

National Grid believes that the final proposal is expedient and that it is reasonable to wait until the SQSS Fundamental Review has concluded prior to making any fundamental change that could have a significant wider impact on current GB users in relation to the modelling in the transport model. This is also an area that may be reviewed as part of the Charging and Connections review.

As shown in Chart 1 the current arrangements restrict the export of power over peaks. The 'SO to SO' and commercial market arrangements to curtail flow for demand security are not changed by this proposal. However, if exports increased over peaks there is a greater risk that the SO may need to take action. This could result in increased operational costs, representing SO action to adjust the interconnector flow over peaks on Triad periods. We would expect any change to the overall operational costs would be dealt with through the framework that exists for ex post adjustment.

Counter to these costs there are other benefits to GB consumers, many of which have been highlighted in the responses. In particular, improved liquidity across the whole year and removing uncertainty over peaks with the removal of both demand and generation charges. As GB is a net importer increased trade should overall reduce the cost to end consumers through providing a less restricted access to cheaper plant.

National Grid does not believe that management of potential increased congestion costs is a legitimate reason for not implementing EU Regulation requirements and that the Regulation allows for implementation of efficient market based in the longer term. We envisage the potential development of these to be part of the Charging and Connections review.

## **5.5 Timing of implementation**

A few respondents indicated that the proposed changes should not take place until the new financial year or completion of a wider review of the principles underpinning the TNUoS methodology. One respondent expressed a wish to avoid mid-year tariff changes on grounds of charge stability.

### *National Grid's view:*

National Grid believes that the proposed change should take place as soon as possible to ensure timely compliance with the EU Regulation. It should be noted that the "effective date" for the mandatory 3<sup>rd</sup> package Regulation is 3<sup>rd</sup> March 2011; prior to the beginning of the new financial year. Furthermore, we also recognise that there is likely to be an imminent adoption of mandatory guidelines under the existing Regulation.

Other factors such as the new offshore regime may necessitate a mid-year tariff change this year and we would look to include any consequences of this proposal in that change. Given the level of revenues National Grid would not intend to initiate a mid-year tariff change as a direct consequence of this proposal alone.

## 5.6 Other Charges & Miscellaneous Issue

Some responses suggested that BSUoS charges should also be removed with four of these referring to the multiplicity of other costs and such as losses (both transmission and interconnector), connection and registration charges. Three other responses were not in favour of the removal of energy charges from interconnectors.

A small number of concerns were also raised such as retention of Interconnector rights and obligations as associated when they were considered as a generator.

A number of respondents also expressed concern as to the management of the potential changes in the auction revenues.

### *National Grid's view*

The consultation performed and the relevant EU Regulation relates to "access" (TNUoS) charges and not "operational" (BSUoS) charges and as such, is outside the scope of this proposal.

Whilst not directly applicable to this proposal, nor would they preclude the implementation of this proposal, National Grid will continue to keep under review the wider framework in which Interconnectors operate.

Through the EU framework Ofgem licences interconnectors and grants conditional exemptions for GB interconnectors. These arrangements address the overall management of congestion revenues in a manner that is entirely consistent with the Regulations. These arrangements are designed to maintain existing capacity (including financing); develop new capacity; and potentially be taken account of in setting national tariffs. Therefore we believe that GB arrangements for Interconnectors do take account of changes to the forecast revenue flows and can provide benefit to GB users.

## 5.7 Changes following consultation

As a result of the consultation National Grid has only changed the proposal consulted upon in respect of the modelling in the transport model. The original proposal may have led to National Grid making an assumption the interconnectors may have been fully exporting at peak and representing this in the model.

Given the nature of the proposed change and the ongoing reviews National Grid believe that it is expedient at this time to propose that the interconnector is modelled with full TEC in the transport model. This reflects the current operational flexibility and more closely reflects the assumed flow under the current SQSS process. Avoiding and short term volatility and improving predictability for users as a result of these proposals also better facilitate competition.

This is consistent with the approach that is used for Power Stations which are fully modelled at TEC in the transport model rather than any forecast of actual output. In the case of interconnectors, continuing to model the full TEC in the transport model reflects the potential contribution to security of demand.

This assumption is not explicitly in the Statement of the Use of System Methodology and therefore does not result in change to the text that was included in the consultation. Separately, National Grid publishes the transport model along with the assumptions to CUSC parties and therefore the assumptions that have been made in deriving the tariffs are also published.

## 6 Assessment against the Relevant Objectives

As noted previously in Section 2 of this consultation, National Grid has an obligation to make such modifications to the Use of System charging methodology as may be requisite for the purpose of better meeting the relevant transmission Licence objectives: to facilitate competition, for charges to be cost-reflective, and for charges to take into account developments in the transmission business.

National Grid has made the following assessment against the relevant objectives.

### 6.1 Proposal to remove TNUoS charges from Interconnectors

#### 6.1.1 Development of Licensees Businesses

In the context of the imminent introduction of a mandatory Inter TSO compensation (ITC) mechanism and with the introduction of the third package of EU legislation that further promotes the single Internal Market in Electricity, National Grid believes that these changes reflect the EU Regulation as set out within this document.

#### 6.1.2 Facilitating Effective Competition

National Grid believes that this proposal better meets the relevant objective of facilitating competition.

Greater cross-border trading would be encouraged. The price differential that drives trades between the GB and other EU markets would no longer need to account for TNUoS charges. Therefore, the number of opportunities where beneficial trades could take place would increase. GB consumers should also benefit from more competitive prices as a consequence of the greater trading opportunities that should arise.

Should market conditions arise where there are increased opportunities for exports, we would anticipate that this would also stimulate the development of additional generation connecting to the GB system and thus improve plant margins.

Furthermore, the removal of TNUoS charges from interconnectors would encourage the construction of other new interconnectors by strengthening their cost-benefit justification. This in turn, could improve security of supply and increase competition.

Providing a stable and predictable methodology for GB users better enables parties to invest and trade effectively in the GB wholesale market and better promote effective competition.

#### 6.1.3 Cost Reflectivity

An Interconnector is essentially considered under the Regulation as an extension to transmission systems that facilitates this process and the consequent impacts on the transmission system should be covered through the ITC mechanism.

Within the context of the wider European market National Grid relies on the cost reflectivity on the ITC mechanism and the appropriate recovery of ITC charges in external system to ensure that overall cost reflectivity is maintained. By removing the GB charge on Interconnectors the GB regime will better support this overall cost reflectivity.

## **6.2 Proposal on GB Demand and modelling of Interconnectors**

### **6.2.1 Cost Reflectivity**

NGET's charging methodology is designed to provide efficient investment signals to generation and demand that connects to the GB transmission system. Removing Interconnector exports from determining Triad charges ensures that GB market participants are not unduly affected by the setting of Triad periods based on flows that are not subject to the same signal.

The intention of the methodology is to reflect the assumptions and data used in the design of the transmission system. Modelling the Interconnectors with the potential to import into GB at their potential capacity level better reflect the assumptions made in design based on the flexibility that the Interconnector could deliver in operational timescales.

## **7 Impact on Other Industry Documents**

It is not anticipated that the proposed modification will require amendments to any other industry documents that would prevent this proposal progressing.

National Grid recognises that GB generation is increasing operating in a wider market and that in this context further changes may be required to the methodology in the future. We envisage that these wider issues will be dealt with through Ofgem's recently announced Charging and Connection Review.

## **8 Implementation**

The implementation date for the proposed change will be on the 5<sup>th</sup> October 2010, applicable from the charging year beginning 1<sup>st</sup> April 2010, unless there is an Authority decision to veto this proposal or perform an Impact Assessment. In that circumstance, the proposed change would be implemented at such time as determined by the Authority.

### **8.1 Implementation assessment**

There is negligible implementation cost associated with this change. We have not received any information from the industry to indicate that there are significant wider implementation costs that need to be considered.

We have notified Elexon of the potential change to their Industry Information systems and we understand that they are currently assessing their impact.

## Appendix 1: Indicative tariffs

This appendix contains the indicative tariffs.

It provides an indication of the impact of removing TNUoS charges from Interconnector Users. The information below compares the 2010/11 tariff, as set out in the Statement of Use of System charges, 1<sup>st</sup> April 2010, with those that would have been derived if this proposal had been implemented in their preparation.

For the residual tariff element, the charging base over which generation and demand tariffs are calculated have been reduced to reflect the revised levels of generation and demand in those zones where Interconnectors operate.

In deriving this indicative tariff, all Interconnector TEC was removed from the generation charging base and the half-hourly demand charging base was reduced to reflect exports on the Moyle Interconnector. Given that NGET will be recovering the same allowed revenues on behalf of transmission asset owners, but over a reduced charging base, the TNUoS tariff would need to increase marginally to facilitate this.

The overall effect on the revised charging bases is that it would add approximately £0.04p/kW to generation tariffs for all generation zones and add approximately £0.02p/kW for half-hourly metered demand: the tariff for non half-hourly demand changes negligibly (less than £0.003p/kWh).

**Table 1: Comparison of Indicative Generator charges against original 2010/11 tariff (including small generator discount)**

Generation		2010/11 Tariffs	2010/11 Tariffs Including Proposal	Difference
Zone No.	Zone Name	Zonal Tariff (£/kW)	Zonal Tariff (£/kW)	Abs
1	North Scotland	20.08	20.12	0.04
2	Peterhead	18.71	18.75	0.04
3	Western Highland & Skye	22.79	22.83	0.04
4	Central Highlands	17.63	17.68	0.04
5	Argyll	13.34	13.38	0.04
6	Stirlingshire	13.44	13.48	0.04
7	South Scotland	12.49	12.53	0.04
8	Auchencrosh	10.91	10.95	0.04
9	Humber & Lancashire	5.42	5.46	0.04
10	North East England	8.79	8.83	0.04
11	Anglesey	6.17	6.21	0.04
12	Dinorwig	5.50	5.54	0.04
13	South Yorks & North Wales	3.59	3.64	0.04
14	Midlands	1.56	1.61	0.04
15	South Wales & Gloucester	0.39	0.43	0.04
16	Central London	-6.41	-6.37	0.04
17	South East	0.81	0.85	0.04
18	Oxon & South Coast	-1.36	-1.32	0.04
19	Wessex	-2.64	-2.59	0.04
20	Peninsula	-5.87	-5.83	0.04

**Table 2: Comparison of Indicative HH demand charges against original 2010/11 tariff**

Demand		2010/11 Tariffs	2010/11 Tariffs Including Proposal	Difference
Zone No.	Zone Name.	HH Zonal Tariff (£/kW)	HH Zonal Tariff (£/kW)	Abs
1	Northern Scotland	5.87	5.89	0.02
2	Southern Scotland	11.22	11.24	0.02
3	Northern	14.52	14.54	0.02
4	North West	18.43	18.45	0.02
5	Yorkshire	18.34	18.37	0.02
6	N Wales & Mersey	18.89	18.91	0.02
7	East Midlands	20.93	20.95	0.02
8	Midlands	22.69	22.71	0.02
9	Eastern	21.84	21.86	0.02
10	South Wales	22.52	22.55	0.02
11	South East	24.63	24.65	0.02
12	London	26.76	26.78	0.02
13	Southern	25.49	25.51	0.02
14	South Western	26.06	26.08	0.02

**Table 3: Comparison of Indicative non HH demand charges against original 2010/11 tariff**

Demand		2010/11 Tariffs	2010/11 Tariffs Including Proposal	Difference
Zone No.	Zone Name.	NHH Zonal Tariff (p/kWh)	NHH Zonal Tariff (p/kWh)	Abs
1	Northern Scotland	0.79	0.79	0.00
2	Southern Scotland	1.55	1.55	0.00
3	Northern	1.99	2.00	0.00
4	North West	2.55	2.56	0.00
5	Yorkshire	2.52	2.52	0.00
6	N Wales & Mersey	2.63	2.63	0.00
7	East Midlands	2.89	2.89	0.00
8	Midlands	3.18	3.19	0.00
9	Eastern	3.03	3.03	0.00
10	South Wales	3.03	3.03	0.00
11	South East	3.38	3.38	0.00
12	London	3.60	3.61	0.00
13	Southern	3.54	3.54	0.00
14	South Western	3.55	3.56	0.00

## Appendix 2: Changes to the Statement of the Use of System Charging Methodology

*Amend Chapter 4 to remove Interconnectors from parties liable for demand charges.*

*In addition we have identified that the paragraph numbering in section 4 is incorrect. This numbering and subsequent cross referencing in the statement will be corrected when the methodology is next updated. This correction is not a methodology change, but carried out in accordance with licence condition C8 paragraph 8, a period revision.*

### Chapter 4: Demand Charges

#### Parties Liable for Demand Charges

4.1 The following parties shall be liable for demand charges:

- The Lead Party of a Supplier BM Unit;
- Power Stations ~~or Interconnector Asset Owners~~ with a Bilateral Connection Agreement;
- Parties with a Bilateral Embedded Generation Agreement

*Remove paragraph 4.8 on p34*

#### ~~Directly Connected Interconnectors and those capable of exporting more than 100MW to the Total System~~

~~4.8 — The Chargeable Demand Capacity for Interconnectors will be the average net, metered import of the Interconnector during the Triad (including Interconnector errors with the exception of Emergency Assistance actions).~~

*Modify Triad definition to exclude Interconnector exports*

#### The Triad

4.10 The Triad is used as a short hand way to describe the three settlement periods of highest transmission system demand within a Financial Year, namely the half hour settlement period of system peak demand and the two half hour settlement periods of next highest demand, which are separated from the system peak demand and from each other by at least 10 Clear Days, between November and February of the Financial Year inclusive. ~~Exports on directly connected Interconnectors and Interconnectors capable of exporting more than 100MW to the Total System shall be excluded when determining the system peak demand.~~ An illustration is shown below.

*Amend Chapter 5 to remove Interconnectors from parties liable for generation charges.*

## **Chapter 5: Generation charges**

### Parties Liable for Generation Charges

5.1 The following CUSC parties shall be liable for generation charges:

- i) Parties of Generators that have a Bilateral Connection Agreement with National Grid.
- ii) Parties of Licensable Generation that have a Bilateral Embedded Generation Agreement with National Grid.

~~iii) Interconnector Asset Owners that have a Bilateral Connection Agreement with National Grid and/or Interconnector asset Owners of Interconnectors capable of exporting 100MW or more to the Total System.~~

*Remove paragraph 5.8, 5.9 and 5.14. Remove references to Interconnectors from paragraphs 5.10 through 5.15*

### **Generation with positive wider tariffs**

~~5.8 The Chargeable Capacity for an Interconnector with positive wider generation tariffs is the highest TEC applicable to that Interconnector for that Financial Year. An Interconnector should not exceed its TEC as to do so would be in breach of the CUSC, except where it is entitled to do so under the specific circumstances laid out in the CUSC (e.g. where a User has been granted Short Term Transmission Entry Capacity)~~

5.10 For Power Stations ~~and Interconnectors~~, the short term chargeable capacity for LDTEC with positive generation tariffs referred to in Paragraphs 5.7 ~~and 5.9~~ will be the capacity purchased either on a profiled firm or indicative basis and shall be assessed according to the capacity purchased on a weekly basis.

### **Generation with negative wider tariffs**

5.11 The Chargeable Capacity for Power Stations ~~and Interconnectors~~ with negative wider generation tariffs is the average of the capped metered volumes during the three settlement periods described in 5.12 below, for the Power Station (i.e. the sum of the metered volume of each BM Unit associated with Power Station in Appendix C of its Bilateral Agreement) ~~or Interconnector~~. A Power Station ~~or Interconnector~~ should not exceed its TEC as to do so would be in breach of the CUSC, except where it is entitled to do so under the specific circumstances laid out in the CUSC (e.g. where a User has been granted Short Term Transmission Entry Capacity). If TEC is exceeded, the metered volumes would each be capped by the TEC for the Power Station ~~or Interconnector~~ applicable for that Financial Year. For the avoidance of doubt, TNUoS Charges will be determined on the TEC held by a

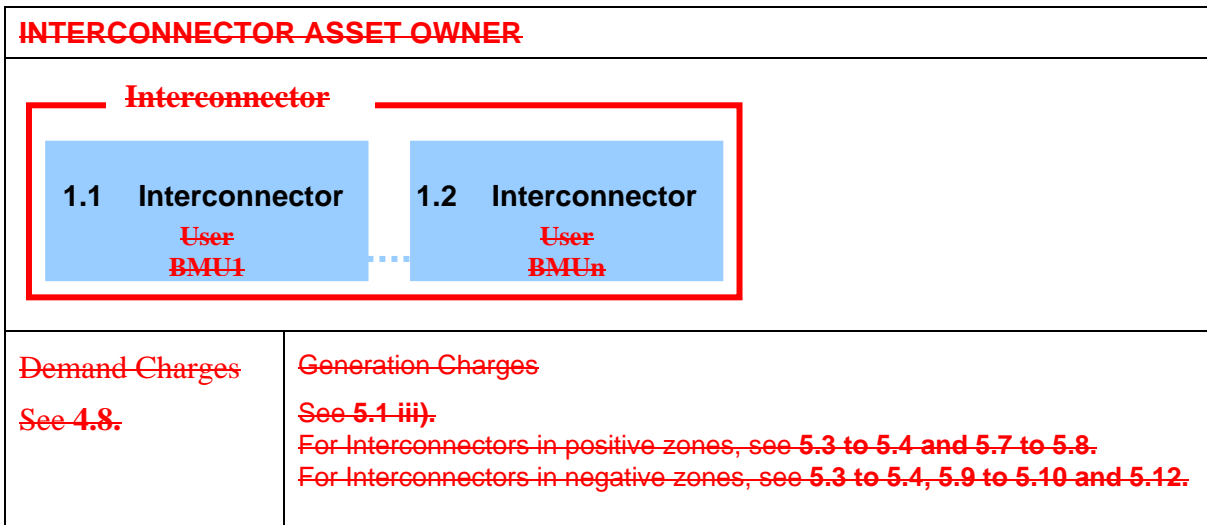
User as specified within a relevant bilateral agreement regardless of whether or not it enters into a temporary TEC Exchange (as defined in the CUSC).

5.12 The three settlement periods are those of the highest metered volumes for the Power Station ~~or Interconnector~~ and the two half hour settlement periods of the next highest metered volumes which are separated from the highest metered volumes and each other by at least 10 Clear Days, between November and February of the relevant Financial Year inclusive. These settlement periods do not have to coincide with the Triad.

~~5.14 The short-term chargeable capacity for Interconnectors with negative generation tariffs is any approved STTEC or LDTEC applicable to that Interconnector during a valid STTEC Period or LDTEC Period, as applicable.~~

5.15 For Power Stations ~~and Interconnectors~~ with negative generation tariffs, the short-term chargeable capacity for LDTEC referred to in Paragraphs 5.13 ~~and 5.14~~ will be the capacity purchased either on a profiled firm or indicative basis and shall be assessed according to the capacity purchased on a weekly basis.

*Remove diagram “Interconnector Asset Owner” from Appendix TN-5: Classification of parities for charging purposes.*



*Modify diagram in Appendix TN-6 to remove references to Interconnector Asset owners*

## Appendix 3: Summary of Individual Responses

This Appendix contains a summary non-confidential representations received following circulation of the Consultation Document.

### Summary of representations

Reference	Company	Support	Summary of response
GBECM26 - 01	Transmission Capital	✓	<p>Supports proposal believing customers will benefit from reduced energy prices arising from increased international trade and competition.</p> <p>Also, believe that removing charges will encourage construction of new interconnectors as result of strengthened cost-benefit case.</p> <p>This in turn would improve security of supply, increase competition and assist in integration of renewables.</p> <p>Respondent believes rationale for removing TNUoS charges should also apply to BSUoS and other similar charges.</p> <p>Without prejudice to this proposal, they also believe that the issue of imports competing with domestic generation needs further examination.</p>
GBECM26 - 02	Endesa Ireland	✓	<p>Believes removal of TNUoS would:</p> <ul style="list-style-type: none"> <li>• ensure GB compliance with EU Regulation</li> <li>• increase cross border trade</li> <li>• promote development of single EU energy market</li> <li>• provide benefits through more competitive prices &amp; enhanced security of supply</li> </ul> <p>Done not consider removal of locational signal would adversely impact recovery of locational costs.</p>

GBECM26 – 03	AEP	✓	<p>Supports main conclusions of GBECM-26 consultation stating that triad charges significantly impact interconnector use over winter.</p> <p>Believes other issues such as the G/D split result in significant competitive disadvantage to GB generators &amp; should be addressed as part of Ofgem’s upcoming charging review.</p>
GBECM26 – 04	Confidential Response		
GBECM26 – 05	Scottish Power	Qualified	<p>Acknowledges necessity, to the extent that legal analysis demonstrates need in order to comply with EU Regulations.</p> <p>However, they raised issues about placing GB users at competitive disadvantage to overseas generators where generator charges are typically lower and that without removal of GB generator charges, users will be encouraged to locate outside of the GB market and access it via an interconnector. To that end, they assert that it fails to meet the objective of facilitating competition.</p> <p>Furthermore they assert that the proposal fails to meet the objective of cost reflectivity as it provides no incentive for interconnectors to locate close to demand yet still influences other users’ charges through the DCLF charging model.</p> <p>Their opinion is that, without further consequential changes, there is a risk of creating distortions in both competition and cost reflectivity.</p>
GBECM26 – 06	EirGrid	✓	<p>Supportive in that believe elimination of TNUoS tariff on interconnectors will increase cross border trade.</p>
GBECM26 – 07	TenneT including Florence School of Regulation	✓	<p>Supports removal of TNUoS charges believing them to lead to market inefficiencies and not being compliant with EU law.</p> <p>Further believes that application of BSUoS and GB system losses also need to be reviewed.</p>

GBECM26 - 08	GDF Suez	✓	Support the view submitted by EFET (below).  Also observed that (I think) any charge on interconnectors is accounted for in their capacity bids and that their removal would lead to a simplification of the access process.
GBECM26 - 09 & GBECM26 - 10	EFET & Alpiq	✓	Both responses used common text. Both supported the proposal. Both raised the same issues of <ul style="list-style-type: none"> <li>• multiplicity of charges (BSUoS, BSCs connection)</li> <li>• grid system losses</li> <li>• Access specifics e.g. mid access nomination and</li> <li>• Use of explicit intraday auctions</li> </ul>
GBECM26 - 11	RWE	✓	Support proposal believing that it better meets the charging objectives in the light of the “Third Package” legislation.  Also believe that proposal will help facilitate competition in GB and wider EU markets
GBECM26 - 12	Statnet	✓	Believes that it is in the interest of GB and Norway to harmonise their treatment of interconnectors and that this proposal meets EU “Third Package” legislation and is in line with treatment of other European interconnectors.
GBECM26 - 13	ESB International	✓	Supports proposal as described in consultation.  Expressed concerns that this modification may lead to appropriateness of other charges e.g. BSUoS.  Are strongly of the view that interconnectors should be exposed to all energy-based costs.
GBECM26 - 14	International Power	✓	Supported main conclusions however proposed delaying implementation until April 2011 so as to avoid mid-year tariff changes.  Requested estimates for ITC costs for future years.

GBECM26 – 15	BritNed	✓	<p>Supports proposal highlighting that their customers also support their views.</p> <p>Request update on Ofgem’s wider review of charges.</p>
GBECM26 – 16	Moyle Interconnector Ltd	✓	<p>Supports the proposal citing Triad charges as a barrier to trading and the operational difficulties that “Triad avoidance” causes.</p> <p>Raised issue that whilst charges have been removed, it is important that the their rights under the CUSC should not be removed.</p>
GBECM26 – 17	EDF Energy	✓	<p>Agree with the proposal believing the changes will align GB treatment with that of third package.</p> <p>Also expect the change to deliver greater trading &amp; thus facilitate competition.</p> <p>Believe it is still appropriate for Interconnector Users to pay BSUoS charges and receive compensation if constrained for system reasons.</p>
GBECM26 – 18	Viridian Power & Energy	✓	<p>Fully supports the proposed changes and supports National Grid’s arguments within consultation paper that the change better meets our objectives.</p>
GBECM26 – 19	E.ON UK	Qualified	<p>Supportive of the broad aims but concerned that it disadvantages GB users.</p> <p>Their view is that interconnectors cause transmission reinforcements; that interconnector owners should face these costs and that they should not necessarily be passed through to users. They assert that is the “pass through” of Triad charges to traders that is the issue, and that this could be replaced with a capacity based charge.</p> <p>Respondent also advised caution over any impact this proposal may have on locational charges.</p>

GBECM26 – 20	SSE	Qualified	<p>Support removal of barriers to EU trade however envisages consequential impacts resulting from simply removing TNUoS charges.</p> <p>Believes this to be incompatible with charging methodology, discriminatory, undermines locational charging and does not better meet National Grid's Relevant objectives.</p> <p>Also does not believe proposed changes need to be implemented by 1-Oct-10.</p>
GBECM26 – 21	APX Endex	✓	<p>Supports removal of TNUoS charges, however argues that this review should go further and also remove BSUoS and GB system loss charges.</p>
GBECM26 – 22	Drax Power Ltd	Qualified	<p>Agrees in principle to equal treatment of Interconnectors and transmission networks.</p> <p>Believes that GB charges for all parties needs to be considered in context of equitable competition between GB generation and those in other Member States.</p> <p>Also believes that removal of interconnector charges should only occur when competition implications for generation either side of interconnector are understood.</p> <p>Interconnectors should remain liable for other cost allocations e.g. BSUoS and transmission losses.</p> <p>Further investigations required to address the potential mismatch of charging arrangements between Member States.</p>
GBECM26 – 23	Centrica	Qualified	<p>Considers it important that Interconnector charging does not inadvertently create barrier, however expressed concerns over consequential issues covering potential distortion in competition, locational signals and impact of interconnector flows on other user tariffs.</p>