

Sarah Hall
Electricity Charging & Access Development
National Grid Electricity Transmission plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

28 November 2008

Dear Sarah,

British Energy response to the pre-consultation document for 'Long-term Fixed Transmission Network Use of System (TNUoS) Tariffs' (GB-ECM 15)

The British Energy group of companies welcomes the opportunity to respond to the above pre-consultation.

British Energy believes that should generators be required to commit to a fixed duration access right then this should ideally be matched by a fixed price, but we do not believe that it is appropriate to do so, for a number of reasons:

- **All options for calculating long-term fixed tariffs introduce significant cross-subsidies**
- **The options presented do not provide an appropriate balance of cost-reflectivity and price certainty**
- **It is not appropriate for National Grid to offer a hedge against tariffs**

Under CAP165 generators are required to commit to paying for rights for a fixed number of years without knowing what the cost of rights will be in those years. A fixed duration commitment should ideally be matched by a fixed price. However, British Energy understands the issues with fixing the price and for the reasons below we do not believe it is appropriate to do so.

Local tariffs

British Energy believes that the local access right relates to a physical connection, not a financial access product and consequently it should not be defined as a finite right. It may therefore be reasonable to assume that tariffs for local access need not be fixed. However a generator with a fixed long term right and a fixed price should not see the inaccuracies of fixed wider prices fed through to a volatile local tariff, as this will erode the business risk mitigation provided by the fixed wider tariff.

Wider locational and residual tariffs

We believe that significant cross-subsidies via socialisation of charges will be created by all options discussed in the pre-consultation on fixing TNUoS tariffs. Under a maximum allowed revenue National Grid will need to adjust charges for under/over recovery through the application of a flat tariff on all users.

It is conceivable that generators would wish to fix tariffs to match the long duration of a finite right. As the system changes over time those charges paid by generators that fixed prior to other parties would become less cost reflective introducing cross-subsidies. For example, should all generators fix both the locational and residual elements of their tariffs in the same year, under an allowed revenue and current charging methodologies National Grid would not be in a position to charge for revenue where they have under recovered. This leaves the next 'new' connecting generator facing extremely large and disproportionate use of system charges to account for the inaccuracies in the fixed tariffs (potentially this could leave a party

British Energy Group plc
Barnett Way
Barnwood
Gloucester GL4 3RS

T +44 (0)1452 652222
F +44 (0)1452 653775
www.british-energy.com

Registered Office:
GSO Business Park,
East Kilbride G74 5PG
Registered in Scotland No. 270184

connecting anywhere in the country facing a charge of millions of pounds) . Similarly, were generators to fix only the locational element of their tariff all inaccuracies would be fed through to the residual charge. This could result in tariffs that are highly volatile eroding any benefit which fixed locational tariffs should provide.

As National Grid have not confirmed allowed revenue amounts beyond the current price control they cannot offer a fixed price to generators other than within a price control. The price that National Grid provides would be based on a forecast tariff which naturally varies as the system develops. Whether a prevailing or forecast tariff is used as the basis of a fixed tariff charges will become less cost reflective of the system costs, and as suggested in the pre-consultation, the inaccuracies could be significant.

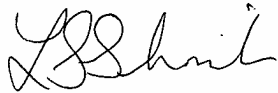
British Energy believes that having an element of the tariff that is not fixed, either a residual tariff or a separate charge for the purposes of revenue recovery does not provide the certainty of price needed under the finite arrangements for access, described in CAP165.

Finally we note that there already exist contractual arrangements which reference an RPI index and we don't believe that National Grid need make a forecast of RPI for the purposes of providing a fixed tariff.

We agree with the concerns of the working group that National Grid's responsibilities for setting charges and making investment decisions in line with their incentives would make it inappropriate for National Grid to also provide a hedge against tariffs.

Please contact me directly should you need clarification on any of these points.

Yours sincerely



Louise Schmitz
Trading consultant
British Energy, Trading and Sales



Sarah Hall
Electricity Charging & Access Development
National Grid Electricity Transmission Ltd
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

E.ON UK plc
Westwood Way
Westwood Business Park
Coventry
CV4 8LG
eon-uk.com

Paul Jones
024 76 183 383

paul.jones@eon-uk.com

28 November, 2008

Dear Sarah,

Charging Pre-Consultation: GBECM-15 Long-term Fixed Transmission Network Use of System (TNUoS) Tariffs

Thank you for the opportunity to respond to the above consultation. This response is made on behalf of E.ON UK. Our answers to the specific questions posed in the pre consultation are as follows.

We invite views regarding whether respondents believe fixed price tariffs would be appropriate under the CAP165 arrangements?

There are several issues with fixing TNUoS tariffs. Fixing prices does not fit well with a methodology that recovers a fixed allowable revenue in a particular year, particularly when that figure changes year on year. If a number of generators are able to fix their entire charge then those remaining with floating prices will be exposed to more volatility, as they alone will be responsible for any balancing residual charge. Alternatively, if the generators are only able to fix the locational element of charges and are also exposed to the balancing residual element, then they effectively will not have fixed their charges as any volatility in prices will simply be transferred through the residual.

Of course, parties will tend to only be interested in fixing their charges if they expect these charges to go up in the future. Those who expect charges to reduce will opt for variable prices. If these decisions are made accurately then there would be a systematic bias to under recovery compared with a fully cost reflective variable regime. This is because

E.ON UK plc
Registered in
England and Wales
No 2366970
Registered Office:
Westwood Way
Westwood Business Park
Coventry CV4 8LG

reducing tariffs would be correctly recovered as users opt for variable prices and increasing priced tariffs would be under recovered as users choose to fix them before they increase. This would increase the amount of charge to be recovered through the residual tariff and ultimately undermine locational signals provided through charges (if the residual remains a flat charge across all generators as now).

We invite views on whether respondents believe users should have the option to fix the local part of their locational tariff?

We would not expect the local charge to change significantly in general, as it should simply reflect the cost of the assets provided locally for the generator concerned. These should not be subject to change on a regular basis. Additionally, generators only pay for their proportion of the use of any shared assets. Therefore, as a general rule they should not be appreciably affected by the arrival or departure of any other party unless the design of the network changes significantly.

We therefore do not believe that it would be necessary to fix the local charge should it be introduced.

We invite views on whether respondents believe it would be more appropriate to fix the wider locational and the residual part of the tariff or only the wider locational part of the tariff?

As we mention above both have problems associated with them. Fixing the locational element only will push volatility on to those parties who remain on variable charges. Fixing the locational element only will transfer volatility into the residual tariff negating to some extent the benefits to the user of fixing the tariff.

We invite views on whether respondents believe it should either be compulsory for users to fix their tariffs or users should be able to choose if they have a fixed or floating tariff?

If generators are forced into fixing tariffs then those less inclined to do so will choose to commit to shorter periods of access rights, in order to achieve the same effect as being able to float. Of course this will be more risky as they may not be able to acquire future rights if they choose to relinquish them. However, it is difficult to see how generators could effectively be forced into long term fixed price rights.

We invite views on whether respondents think it would be more appropriate to base the long term fixed tariff on the prevailing TNUoS tariff or a forecast of the TNUoS tariff?

The approach to fix price based on a forecast has the potential to be more accurate than fixing on one year's price only. However, this will only be for a very limited amount of time of perhaps a few years. The ability of anyone to forecast accurately beyond this would very much be in question.

We invite views on how respondents think inflation can be most appropriately included in long-term fixed TNUoS tariffs?

Tariffs should be adjusted in response to actual inflation rather than a forecast set when the price was fixed.

We invite views regarding whether it is appropriate for under and over recovery caused by fixed charges to be recovered from other generators through the residual or a separate charge?

If any under or over recovery was made through a separate charge then the effect would be the same as recovering through the residual charge. The answer is not to fix the charges in the first place.

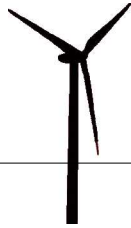
We invite view regarding whether National Grid is the appropriate party to provide a hedge against tariffs?

As has been mentioned in previous discussions and consultations on fixing TNUoS tariffs, it would be possible now for a financial institution or other users to provide hedges against TNUoS charges. Companies already hedge other elements such as weather effects. If such hedges have not been entered into as of now, it is a reflection either of the ability to provide such a hedge or of the desire from parties for such a product, or both. Requiring National Grid to provide such a hedge is not the solution.

I hope the above comments prove helpful.

Yours sincerely

Paul Jones
Trading Arrangements



Fairwind (Orkney) Ltd

Reply address:
Horries, Deerness, Orkney, KW17 2QL
Tel: 01856 741267 Fax: 01856 741370
E-mail: dennis@researchrelay.com
Date: 28th November 2008

National Grid
National Grid House
Attn Sarah Hall

Dear Sarah,

RESPONSE

PRE-CONSULTATION DOCUMENT GB ECM-15

Long-term Fixed Transmission Network Use of System (TNUoS) Tariffs

Fairwind Orkney Ltd is an independent renewable energy developer based in Orkney, Scotland. We believe that FOL is reasonably representative of small business and community based aspirations to build and connect generation based on some of the highest quality renewable resources in Europe.

To us, access to the UK grid network is an essential part of, both, the future of renewables in the Scottish Islands and the delivery of National and European targets for energy based on renewable sources.

The background to generation projects in and around the Scottish Islands and the North of Scotland, currently, is the prospect of very high TNUoS charges. The largest proportion of this charge, by far, is the locational element.

The locational element – Nationally – is a relatively small part (£50m) of the £365m total TNUoS receipts. It does however mask a cost of £190m in locational charges from the North of UK and benefit of £140m to the South.

We already see over-recovery through high locational charges and a smearing back to all users through reduction in the residual element of TNUoS. The upshot of this and the significant North to South movement of funds as an involuntary cross subsidy.

It is against this background that we make our views on the prospects for charging in a CAP165 environment where capacity (on the wider network) is fixed for a number of years – which may exceed 25 years.

The pre-consultation response asked a number of questions of respondents concerning the pricing of a product booked on a long term basis – which may be as long as 40 years.

Fixed Price Tariffs

Good

- Predictable and transparent

Bad

- If under or over priced would be locked in for a long time.
- The scene would be set for a ‘winners and losers’ scenario. Users booking later would effectively subsidise those booking earlier with a too- low tariff. Conversely they could benefit if those locked in earlier were paying too much.

Fix Local

Good

- Some degree of predictability and transparency. Local less prone to volatility – thus greater chance of setting a long-term rate which could avoid over or under recovery.

Bad

- Not so good if locally charged assets are extensive or shared – much more like wider.
- Lots of potential for volatility through variation in wider and residual charging.

Fix Wider and Residual

- Just a variation in ‘Fix Local’ – same problems – though wider is potentially more volatile and if residual is also fixed then all the variations would be loaded onto locational.

Compulsory Fix – or choose to Float

Both problematic. May be less unfair in the long run if it is compulsory to fix.

Inflation

An RPI element would be built into any long-term fix

Recovery of under or over recovery through residual or separate charge

Unless a method could be devised which targets the over or under recovery on the specific user then there would be involuntary cross-subsidy (positively or negatively)

it would not be acceptable. Thus, using the residual element would not be acceptable. A separate balancing charge levied per user –tailored to that user’s situation – may be the only way to limit costs to others. The effect of this charge would, however, negate much, if not all, the benefit of fixing charges ahead, since one would not know how the balance charge would come in year on year.

National Grid acting as ‘Hedge’

If compulsory fixing was in place it would be difficult for National Grid to avoid operating as a facility for hedging. It remains to be seen how this type of activity would sit alongside its licence conditions.

CONCLUSION

The notion of booking finite long-term rights as a means to getting more generation onto the system whilst increasing its efficiency and economy is tenuous at best. The options for charging for this product are beset with complexity, lack of predictability and ultimately lack of transparency and would cause more problems than they would ever solve.

Thanks for the opportunity to respond.

Regards,

Dennis Gowland (unsigned as e-mailed). Director
28.11.08

Responses to Questions:

1. We invite views regarding whether respondents believe fixed price tariffs would be appropriate under the CAP165 arrangements?

An option to have fixed prices could be attractive for some parties, however as the CAP was not well received by industry, this investigation could be meaningless.

2. We invite views on whether respondents believe users should have the option to fix the local part of their locational tariff?

See Q3

3. We invite views on whether respondents believe it would be more appropriate to fix the wider locational and the residual part of the tariff or only the wider locational part of the tariff?

We would encourage maximum flexibility for users. Each element should be able to be fixed separately which would allow individual users to determine which options to choose in line with their own risk policy (with the residual being the greater element of the charge it has the potential for the greatest impact).

Handling of MAR needs to be considered carefully as well to ensure that over/under recovery is handled correctly and does not effect the variable rate customers or new fixed rate customers through uncertainty of cost setting. Could MAR become a range and if revenue fell within this band then no reconciliation is needed or, as NG are in a privileged market position should they carry the cost of their own inaccuracies in setting tariffs.?

4. We invite views on whether respondents believe it should either be compulsory for users to fix their tariffs or users should be able to choose if they have a fixed or floating tariff? Users should have the choice as they would with finite length booking under CAP165 and should not be forced to take either fixed or variable tariffs.

5. We invite views on whether respondents think it would be more appropriate to base the long term fixed tariff on the prevailing TNUoS tariff or a forecast of the TNUoS tariff?

A hybrid approach might be worth considering here as the 2 approaches have benefits both in the short and long term. A greater concern is how NG will handle setting prices beyond current the 5 year forecast time scales.

6. We invite views on how respondents think inflation can be most appropriately included in long-term fixed TNUoS tariffs? If costs are fixed, then does inflation need to be included?

This gives both parties financial certainty over the booked period. Setting of MAR should be altered accordingly to accommodate this.

7. We invite views regarding whether it is appropriate for under and over recovery caused by fixed charges to be recovered from other generators through the residual or a separate charge?

Under or over recovery is cause by the forecasting errors of NG. If CAP165 is implemented and NG receive a greater degree of confidence in plant coming and going, forecasting of costs should be easier. Should the group consider a third option of NG having to bear the cost of their forecasting errors while having the tariffs controlled suitable so they are not set too high.

8. We invite view regarding whether National Grid is the appropriate party to provide a hedge against tariffs?

No, the group view that NG already has sufficient influence over charging arrangements is valid.

Dan Jerwood, GDF

Sarah Hall
Electricity Charging and Access Development
National Grid Electricity Transmission plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

Name Bill Reed
Phone 01793 893835
E-Mail bill.reed@rwe.com

28th November 2008

Email: sarah.a.hall@uk.ngrid.com

Pre-Consultation Document GB ECM-15 Long-term Fixed Transmission Network Use of System (TNUoS) tariffs

Dear Sarah

Thank you for the opportunity to comment on the pre consultation document long-term Fixed Transmission Network Use of System (TNUoS) tariffs (GB ECM-15). This response is provided on behalf of the RWE group of companies, including RWE Npower plc, RWE Supply and Trading GmbH and RWE Innogy.

We support the development of options that enable users to procure access to the transmission system on a long term basis based on arrangements that are reflective of the costs of operating and investing in the GB transmission system. These options should enable users to manage economically and efficiently the risks associated both short run and long run costs of using the transmission system. In addition the options should enable the SO/TOs to fund both congestion on the system and investment in transmission assets.

We recognise that the proposed long term tariff arrangements in GB ECM-15 raise concerns about the accuracy of these tariffs given the underlying assumptions required to apply the ICRP model over several years. In addition, we acknowledge concerns about any over and under recovery arrangements and their potential impact on users. However, we believe that these concerns are overplayed and that the SO and TOs should recognise the advantages associated with revenue certainty provided by users willing to enter long term arrangements with appropriate tools that enable them to manage both short and long term capacity holdings.

We believe that GB ECM-15 does not go far enough to evaluate different charging arrangements under a regime where users are required to book long term capacity holdings. Further consideration is required into the appropriate way for the SO/TO to offer facilities for users to manage efficiently short term congestion costs, long

RWE Supply & Trading GmbH
Swindon Branch
Windmill Hill Business Park
Whitehill Way
Swindon SN5 6PB
United Kingdom
T +44(0)1793/87 77 77
F +44(0)1793/89 25 25
I www.rwe.com
Registered No. BR 7373
VAT Registration No. GB 524 921354
Advisory Board:
Dr Ulrich Jobs
Management:
Peter Terium (CEO)
Dr Bernhard Günther
Stefan Judisch
Dr Peter Kreuzberg
Member of the extended Board of Directors
Dr Wolfgang Peters
(General Representative)
Head Office:
Essen, Germany
Registered at:
Local District Court,
Essen
Registered No.
HR B 14327

run marginal investment costs, and the costs of any over or under recovery of transmission revenue. We believe that the arrangements should go further than simple changes to the TNUoS charging arrangements and requires wider consideration of the funding arrangements for both the SO and TOs. For example, there should be an effective arrangement that enables any congestion revenues to be used for efficient and economic investment to resolve transmission bottlenecks.

Our response to the specific questions in the pre-consultation document is enclosed in Attachment 1.

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

Yours sincerely

By email

Bill Reed,
Market Development Manager

Attachment 1: Response to the specific questions

Attachment 1: Response to the specific questions

We invite views regarding whether respondents believe fixed price tariffs would be appropriate under the CAP165 arrangements?

CAP165 requires users to book long term capacity with associated liabilities for the applicable TNUoS tariffs. This gives rise to additional risk for users related to the year on year changes in TNUoS charges and changes to applicable zones. We believe that CAP165 should be introduced alongside arrangements that enable users to effectively manage or hedge this risk. In addition, users should be offered the opportunity to manage effectively any associated under and over recovery risk.

We invite views on whether respondents believe users should have the option to fix the local part of their locational tariff?

We would support an option that enables users to fix the local part of the locational tariff.

We invite views on whether respondents believe it would be more appropriate to fix the wider locational and the residual part of the tariff or only the wider locational part of the tariff?

We would support an option that enables users to fix the wider locational and the residual part tariff.

We invite views on whether respondents believe it should either be compulsory for users to fix their tariffs or users should be able to choose if they have a fixed or floating tariff?

We believe that users should have the choice of those elements of the charges that they wish to fix.

We invite views on whether respondents think it would be more appropriate to base the long term fixed tariff on the prevailing TNUoS tariff or a forecast of the TNUoS tariff?

We believe that the long run price for users is reflective of the costs which NGC incurs in developing the transmission system to meet the requirements of the changing electricity market; properly allocate those costs between the services provided of transport and security; properly allocate the costs to users at different locations; and reflect an appropriate balance between stability and the need for charges to change as a consequence of changes in the geographical configuration of demand and generation.

We invite views on how respondents think inflation can be most appropriately included in long-term fixed TNUoS tariffs?

It may be appropriate to include some form of indexation into the long term TNUoS tariffs.

We invite views regarding whether it is appropriate for under and over recovery caused by fixed charges to be recovered from other generators through the residual or a separate charge?

The treatment of the recovery of revenue in a regime where long term access rights are sold at fixed prices needs detailed consideration. There are concerns that there may be cross subsidies created in certain circumstances, particularly where the long term arrangements do not recover the actual marginal costs of connecting and using the transmission network.

We invite view regarding whether National Grid is the appropriate party to provide a hedge against tariffs?

We believe that National Grid is guaranteeing revenue from users by selling access rights to those users who wish to manage their costs of access by buying such products. In this context, there need to be arrangements so that the SO and TO sell both long term and short term rights in an economic and efficient way that ensures that there is sufficient revenue to fund their business.



SCOTTISHPOWER

Energy Wholesale

Sarah Hall
Electricity Charging & Access Development
National Grid Electricity Transmission plc
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

28 November 2008

Dear Sarah,

Response to the Pre-Consultation Document **GB ECM-15 Long-term Fixed Transmission Network Use of System (TNUoS) Tariffs**

Thank you for the opportunity to respond to this Further Consultation Document. This response is submitted on behalf of ScottishPower Energy Management Ltd, ScottishPower Generation Ltd and ScottishPower Renewable Energy Ltd.

ScottishPower does not support the original amendment in CAP166 and does not consider that it is appropriate for a generator's existing transmission access rights to be changed by a CUSC amendment. We do not accept that our "evergreen" transmission access rights under the CUSC are unclear and we reserve our right to raise this very important issue in the future.

ScottishPower supports the proposals in GB ECM-17 which provides the stability and predictability of charging sought by generators to enable them to make informed economic decisions through the introduction of a commoditised use of system charge and removes the volatility and unpredictability of the current locational element of TNUoS charges.

Are fixed price tariffs appropriate under the CAP165 arrangements?

The concept of offering fixed-price TNUoS tariffs is attractive and would provide certainty to generators against the uncertainty and volatility inherent in the DCLF ICRP charging methodology and would provide a balance to the increased commitment required from generators. However, ScottishPower would be unwilling to utilise such a product while the differential in the locational element of TNUoS charges remains so exaggerated.

The Charging Condition 4 report (October 2006), outlined the major objections to the introduction of fixed price tariffs and we believe that all of these still apply today.

Should users have the option of fixing the local part of their locational tariff?

ScottishPower supports the proposals for charging for local generator assets under option A of GB ECM-11. As the assets provided for local connection should not be capable of sharing, ScottishPower believes that the local transmission access rights should be evergreen. It may still be attractive to users to fix the local element of the TNUoS charge whether or not a longer-term commitment is required for a finite period.

Cathcart Business Park, Spean Street, Glasgow G44 4BE
Tel: 0141 568 4469 Fax: 0141 568 4939
www.scottishpower.com

Would it be appropriate to fix the wider locational and the residual part of the tariff or only the wider locational part of the tariff?

Generators could only achieve long-term certainty through the fixing of both the wider locational and residual parts of the tariff. However, the dilemma of how to achieve full recovery of Maximum Allowed Revenue (MAR) precludes this solution as the effect of any over or under recovery would be passed wholly onto those generators who had not fixed their charges potentially creating a cross subsidy.

Fixing only the wider locational element of TNUoS would result in any over or under recovery being collected through the residual element from all users once again potentially creating a cross-subsidy although of much smaller significance than fixing both elements.

It would appear that due to the need to recover MAR from users that fixing elements of the TNUoS charge cannot be achieved without the potential of creating cross-subsidies between those users who fix their charges and those who do not.

Should it be compulsory for users to fix their tariffs or should users be able to choose if they have a fixed or floating tariff?

ScottishPower does not believe that it should be compulsory to fix TNUoS charges and that users should have the choice whether or not to hedge future charges depending on which approach best fits their business model.

The issue of potential cross-subsidy where some users fix TNUoS charges and others do not could only be addressed through obliging all users to fix their tariffs. However, this would result in charges diverging increasingly from the charging methodology as there are future changes in the connection of users and investment in transmission infrastructure. The effects on the charging mechanism may then fall disproportionately on any new connecting generators.

There would not appear to be a solution to this conundrum unless a third party was willing to offer a hedging product for TNUoS charges.

Would it be more appropriate to base long term fixed tariffs on the prevailing TNUoS tariff or a forecast of the TNUoS tariff?

Long term tariffs should be fixed on a forecast of the TNUoS tariff in order to most accurately the charges which would have been derived from the ICRP charging model. Unfortunately, due to the accuracy of the assumptions used, (largely those on generation connection dates), the past accuracy of forecast TNUoS charges provided under Charging Condition 5 has not been sufficient to provide users with confidence that such a forecast would be a fair reflection of future charges.

Can inflation be appropriately included in long-term fixed TNUoS tariffs?

ScottishPower believes that the final long-term fixed tariff should not include an estimate of inflation but should be allowed to float. There are a number of products available to users to enable hedging of RPI and users would be able to decide whether an approach including hedging RPI best suited their individual business model.

Is it appropriate for under and over recovery caused by fixed charges to be recovered from other generators through the residual or a separate charge?

We do not consider that it is appropriate that any over or under recovery as a result of some users fixing their charges should be passed on to other generators either directly through the residual charge or indirectly through an over or under recovery adjustment to the following year's allowed revenue.

Is National Grid the appropriate party to provide a hedge against tariffs?

National Grid, as the best informed participant, would be well placed to provide a hedge against long-term tariffs. However, as the tariff setter, participants may not have confidence in its impartiality as a hedge provider. A key issue would be whether National Grid is permitted to pass any over or under recovery from its TNUoS hedging activities through allowed revenues or whether this activity would sit outside of the charging methodology.

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

Yours sincerely,

James Anderson
Commercial and Regulation Manager

Transmission Charging

This paper addresses those issues under consultation in GB ECM-11 For the charging arrangements for generator local assets; GB ECM-13 For the treatment of the residual generation tariff in the calculation of TNUoS tariffs; GB ECM-14 Consequential impact of CUSC Amendment Proposals 161, 162, 163 and 164; GB ECM-15 Long term fixed TNUoS tariffs; and GB ECM-17 Transmission charging – a new approach. It is also mindful of the recent further consultation GB ECM-08 Modification proposal to the TNUoS charging methodology to introduce charging arrangements associated with offshore transmission networks; and the proposed future consultation GB ECM-16 Long term entry capacity auctions.

Summary

Following publication of the Energy White Paper 2007 and the Transmission Access Review, the GB electricity industry has committed to reassess the commercial arrangements governing generation users' access to and use of the GB transmission system.

Underpinning this work are the substantial security of supply challenges resulting from the scheduled closure by 2020 of up to one third of the existing UK generating capacity, and the legally binding targets to reduce greenhouse gas emissions set out in the Climate Change Act 2008. To meet this future energy challenge, significant investment in new generation capacity (both renewable and low carbon conventional technologies) is required. It is widely accepted that stability and certainty in the regulatory and policy frameworks are essential to achieving sufficient, timely investment.

Scottish and Southern Energy (SSE) strongly believes that the current arrangements for charging for access to the GB transmission network do not encourage investment in new generating capacity. We have argued for a number of years, and presented detailed evidence to support our arguments, that the incremental cost related pricing model used by National Grid in setting Transmission Network Use of System (TNUoS) tariffs is not cost-reflective. Further, the resultant TNUoS tariffs are extreme, volatile and unpredictable. In this charging environment, it is nearly impossible for a potential investor to gain the medium to longer term confidence over charges that is necessary for it to commit to the substantial investments required to achieve new GB generation capacity.

In our view, there are three sets of interlinked issues that need to be solved if the charging arrangements for generation users' access to and use of the GB transmission system are going to be fit for purpose. These are to put in place:

- An approach to charging for connection to the network that enables informed network investment decisions and, hence, minimises the exposure of other users to inefficient or stranded assets;
- A regime for charging for use of system that supports ongoing investment and operational decisions through the right balance between cost reflectivity, stability and predictability; and
- Charges for use of system that are consistent with the objective of maximising utilisation of the existing (and future) transmission network.

In summary, this means clear, cost-reflective charges for new connections to the network; stable, non-discriminatory charges for ongoing use of the network; and charging for usage rather than to reserve capacity.

To achieve this, we support a charging regime with a framework as follows:

- **Generator only local assets** For those transmission assets used solely by generation user(s), a user-specific charge that reflects the upfront capital cost and ongoing maintenance cost of those local assets.
- **Wider shared transmission assets** For the parts of the transmission system used by both generation and demand users, a uniform commodity charge that is levied on generation users based on their measured export onto the transmission system.

All generation users connected to the GB transmission system would be liable for both the local and wider charges. Embedded generation users with a Bilateral Embedded Generation Agreement (BEGA) would be liable for the wider charge only.

Implementing this regime would result in a change in generation users' charges. All generation users would be affected; in general, two main factors would determine the scale of the change experienced by individual users. Firstly, the combination of a user-specific local asset charge and a uniform commodity charge would result in a change to the locational signal to reflect the distance from the existing network rather than the distance from demand. In addition, negative charges would be removed. Secondly, replacing the capacity reservation charge with a commodity charge would result in a reduction of charges for low load factor generators and an increase in charges for high load factor users.

Based on information in the public domain, we estimate that around 60% of generation users would experience a reduction in charges, including all renewable generators. Of those generation users that would experience an increase, we estimate that less than 10 users would experience an increase of more than £5 million per annum (of which, the majority are currently liable for negative charges).

Going forward, we are mindful of the transmission tariffication guidelines published by the European Regulators Group for Electricity and Gas (ERGEG). These guidelines advocate harmonisation of use of system charges for generator across Europe and, to achieve this, we would support a gradual reduction in the wider shared asset charge in GB towards zero.

The definition of 'local' and 'wider' transmission assets

SSE supports a framework for charging generation users that has separate elements for local and wider transmission assets.

The rationale for this is simple. Local, generator only, transmission assets provide the physical link between the generator and the transmission system; without the generator these assets would be redundant. Given that no other user benefits from the provision of local generator assets there is a strong case that the connected user should be liable for the absolute cost of those assets. In contrast, the wider transmission system has multiple users (both generation and demand users) resulting in power flows variable in both time and magnitude that are difficult to 'tag' to any individual user. The security and quality of supply standard for the wider shared transmission system is significantly more onerous than for local generator assets and, hence, in most instances the dependency of individual users on individual assets is tenuous. Given this, there is a strong case for charging users for actual use of the wider network.

It is important, for charging purposes, to have a clear, simple, unambiguous distinction between local and wider transmission assets, as follows:

Generator only local assets comprise the electrical connection between one or more generating units and the wider transmission system.

The **wider shared transmission system** comprises the Main Interconnected Transmission System (MITS) (as defined in the GB Security and Quality of Supply Standard) and those parts of the GB transmission system that are required for the supply of power at Grid Supply Points (GSPs), i.e. any apparatus which if removed would reduce the supply capacity a GSP.

Consistent with the rationale for local and wider charging set out above, this definition clearly distinguishes between those local assets used only by generation user(s) and those wider shared assets which are used by both generation and demand users.

This approach is different from that proposed by National Grid in GB ECM-11 (and subsequent modification proposals) which seeks to distinguish local and wider transmission assets through the definition of a MITS node as follows:

Main Interconnected Transmission System (MITS) nodes are defined as:

- A GSP connection with 2 or more transmission circuits connecting at the site or;
- More than 4 transmission circuits connecting at the site.

Where a GSP is defined as a point of supply from the GB transmission system to network operators or non-embedded customers excluding generator or interconnector load alone. For the avoidance of doubt, generator or interconnector load would be subject to the circuit component of its local charge. A transmission circuit is part of the GB transmission system between two or more circuit-breakers which includes transformers, cables and overhead lines but excludes busbars and generation circuits.

Under GB ECM-11, generators directly connected to a MITS node would not be liable for a circuit based local charge. Generators not connected to a MITS node would be liable for a circuit based local charge.

National Grid explains that the definition of a MITS node “was aimed at identifying local assets that exist to connect generation only”. The definition proposed achieves this for the 275kV and 400kV supergrid and those 132kV elements of the system operated in parallel with the supergrid. However, the definition takes no account of the radial parts of the GB transmission system that are shared by both generators and demand; hence, overall the definition fails to achieve National Grid’s stated aim.

This means that, if National Grid’s proposed definition of a MITS node was implemented, generator users would be liable for a local charge, ostensibly for generator only local assets, that includes for assets necessary for demand security. An example of this would be Farr windfarm which, as proposed, would be charged a local charge for circuits that also secure demand at Boat of Garten GSP. Hence, while we support the intention behind National Grid’s proposal, we do not agree that the proposed definition of a MITS node is consistent with this intention.

Charges for generator only local assets

As described above, we believe that there is a strong case that generation users should be liable for the cost of their generator only local assets. National Grid has proposed such change to the charging methodology in modification GB ECM-11, and we support the principle of a cost-reflective local charge with respect to both facilitating economic and efficient connection designs (as set out in GB ECM-11) and wider reform of the charging framework (discussed here). Importantly, this approach would ensure that the wider customer base is not exposed to inefficient or stranded generator only transmission assets.

That said, and in common with the majority of respondents to the August 2008 consultation, we have real concerns with the modification to the TNUoS charging methodology that National Grid has proposed to introduce a local asset charge (as set out in GB ECM-11 Conclusions Report). It is clear from the worked example presented in the August 2008 consultation that the local asset charge proposed under GB ECM-11 is demonstrably not cost-reflective and, as a consequence, we do not support the modification proposal.

Over the past two and a half years, the industry has examined the issue of charges for generator only local assets in significant detail. It is widely agreed that such a charging approach is necessary, and that the charge should be cost-reflective without reintroducing the perceived disadvantages of a deep connection charge (for example, other users’ actions, disaggregation of shared assets and the allocation of ‘strategic’ investment). The modification proposal GB ECM-11 goes some way to achieving this goal, but the real and important outstanding industry concerns need to be met. In this regard, it is disappointing that National Grid has opted not to make any changes to its proposals in light of responses to the August 2008 consultation.

We believe that there is scope to amend National Grid's GB ECM-11 proposal to address industry concerns, and we would support the following changes:

- Use of 132kV and 275kV overhead line and cable expansion factors that are specific to the affected Transmission Owner. In addition, given the potential range of circuit costs and the small database, application of a 'sense check' where if the actual expansion factor varies from the generic expansion factor by more than, say, 20% a circuit specific expansion factor is used.
- Circuit specific local security factors that accommodate partial redundancy in the connection design.
- As described above, a change to the definition of a MITS node that takes account of the radial parts of the GB transmission system that are shared by both generation and demand users.
- A review of the connection-infrastructure boundary, which currently states "Where customer choice influences the application of standard rules to the connection boundary, affected assets will be classed as connection assets", to ensure that this is not resulting in the same assets being categorised as connection for one user and infrastructure for another.

The changes proposed above would improve this modification proposal with respect to National Grid's relevant objectives of facilitating competition, cost-reflectivity and taking account of business developments. It would also remove the potential for discrimination between onshore and offshore generation users. Circuit specific local expansion factors and local security factors (as we suggest above) have been proposed by National Grid in the October 2008 further consultation GB ECM-08 Modification proposal to the TNUoS charging methodology to introduce charging arrangements associated with offshore transmission networks; hence, the changes proposed above would align onshore and offshore charging arrangements.

Charges for wider shared transmission assets

Capacity or commodity?

Historically, it has been argued that investment in the transmission system has been incurred on a capacity basis in order to meet winter peak demand. Taking into account the predominance of high load factor, reliable generation, this has resulted in charges for use of the transmission system being levied on a capacity basis, i.e. a £/kW capacity reservation tariff.

It is fair to say that, having been through a long period of relative stability in generating conditions, the GB electricity generation market is now going through a period of unprecedented change. This change is manifest regardless of plant age and condition, technology, fuel or location. Carbon-based generators are now subject to stringent environmental and emissions controls. Renewable technologies are encouraged and incentivised as a result of national and European policies and, increasingly, legislation. The future for nuclear generation in GB remains uncertain given, in particular,

likely obstacles in the planning process. More generally, commodity and fuel prices are volatile, and supply businesses are seeking change in response to the demands of their customers.

These, and other, factors have contributed (and continue to contribute) to significant changes in the operation of generation users and, hence, their use of the GB transmission system. While we agree that investment in generator only local assets is scaled to meet peak export capability (and, through a local asset tariff, should be charged for on this basis), we believe that it is becoming increasingly untrue that investment in the wider shared transmission system is – or, indeed, should be – on the basis of meeting generators' peak export capabilities. This has been recognised by the transmission businesses and is being progressed through a fundamental review of the system planning standard.

Investment in the GB transmission system is increasingly being driven by the changing requirements of generation users. Overall, generation capacity is forecast to increase by around 40% by 2015. The volume of intermittent and low load factor generation has increased, and this rise is expected to continue. Against this background, demand forecasts are also changing in response to slowing consumer demand and increasing distributed generation; overall growth of less than 5% is expected by 2015.

Given, in particular, the changing operation of generation users and necessity to grow the plant margin (as the volume of intermittent generation increases), we believe that it is no longer appropriate or relevant to charge generation users for use of the wider shared transmission network on the basis of capacity reservation. Generation users will not all be able to respond to conditions of peak demand, and investment in the transmission system will no longer expect this. Hence, we believe that the prevailing (and future) conditions are more suited to a charge for generators which is based on utilisation.

Uniform or locational?

For the reasons described below, we believe that the utilisation charge should be levied as a uniform charge across GB determined from the total annual revenue requirement (£) divided by the total annual generation export (MWh). Each generator user would be liable for the utilisation charge (£/MWh) multiplied by its total metered export over the year (MWh).

Such a charge would be transparent, predictable and stable; hence, facilitating effective competition in generation, in particular through the promotion of a stable climate for investment. It would recognise the developments in the GB electricity generation market and the use of the transmission system, and the consequential changes to the way the transmission licensees plan and run their businesses (as discussed above).

We recognise that the key concern around implementing a GB wide utilisation tariff will be cost reflectivity and, in particular, the impact on cost reflectivity of removing the locationally varying element of the tariff. It is true that a uniform tariff would represent an average charge and, hence, would not exactly reflect an individual user's impact on the costs of the transmission network. However, there is strong evidence that the current locationally varying element of the tariff is no more cost-reflective than

a uniform tariff approach. Consequently, we believe that replacing a charge that is not cost-reflective with an average charge is a relative improvement, and the case is compelling when the many other benefits of a uniform tariff, such as year-on-year stability, are also taken into account.

Considering the specific issue of the cost-reflectivity of the current TNUoS tariff, the correlation between TNUoS (specifically, the locational element) and transmission investment has been examined in detail as part of the Transmission Access Review. The conclusion reached was that TNUoS is not a good proxy for network investment. To illustrate this, National Grid presented the example of reinforcements to the shared transmission system necessary to connect new generation near London. The prevailing TNUoS tariff is negative, meaning once connected the new user would receive an annual payment, yet to provide the connection requires investment of £70/kW.

In response to this, it is argued that, although investment is required to connect the near London generator, the overall cost of connecting this generator is negative because an equivalent sized generator further from London is no longer required, i.e. demand requirements can be satisfied by the new near demand generator, removing the need for the costly remote transmission system. As recognised within the charging statement, this argument is somewhat narrow in scope, particularly as it takes no account of the long life of existing generation and transmission assets – which don't just disappear on the connection of a new, substitute, generator.

While this argument might be credible in times of low plant margin, the validity of the argument is stretched as the volume of intermittent and low load factor generation users grows. We do not believe it is cost-reflective to attribute a negative charge to, for example, an offshore windfarm located near London that requires many millions of pounds of transmission investment to connect and yet makes a negligible contribution to security of supply.

A charge that accurately reflects the costs of an individual generator's connection can be easily put in place through a local asset charge. A cost-reflective allocation of the costs of the wider shared transmission network is best achieved, in our opinion, through a uniform commodity charge. Alternative approaches to allocating the costs will not be cost-reflective when considered over the lifetime of generation and transmission assets, not least as power flows become more variable in response to the changing generation mix and a growing plant margin. An allocation of costs that is right on average is preferable to an allocation that is demonstrably wrong for everyone.

Impact of a uniform commodity charge

The total revenue recovered from generation users in 2008-09 is around £365 million. If a generator only local asset charge was introduced, this would recover around £35 million. We propose that the remaining £330 million would be recovered through a uniform commodity charge for use of the wider shared transmission assets.

Based on information in the public domain, we estimate that the combined impact of the local asset and wider commodity charges would be a reduction in charges for around 60% of generation users, including all renewable generators. Of those generation users that would experience an increase, we

estimate that less than 10 users would experience an increase of more than £5 million per annum (of which, the majority are currently liable for negative charges).

The main impact of the combined local asset and wider commodity charges would be the introduction of stability and predictability in transmission charging. This, we believe, would be welcomed by an industry that is required to make significant investment and operational decisions in coming years.

Consider the impact on, for example, operational decisions at an aging thermal plant that has opted-out of the Large Combustion Plant Directive. This user has to decide how to profile the use of its remaining operational hours between now and 2015. The current charging regime encourages early use of the hours as the charge is based on capacity not use, and there is uncertainty about future charges. Local asset and wider commodity charges would provide certainty over costs and not penalise the generation user for its low load factor.

Liability for the local and wider charge

All generation users connected to the GB transmission system would be liable for the local and wider charges. Embedded generators with a BEGA would be liable for the wider charge only.

The generator only local asset charge would be determined for each generation user and comprise a circuit and substation element. The wider shared asset charge would be determined annually from the known revenue requirement and a forecast total generation export. Generation users would be charged monthly for the previous month's metered export.

Conclusions

In conclusion, SSE strongly believes that the current arrangements for charging for access to the GB transmission system do not encourage investment in new generating capacity. Furthermore, the GB electricity market is going through a period of unprecedented change and this is, in turn, driving unprecedented change in the way that the GB transmission system is planned and operated. We believe that the charging arrangements need to be reformed to reflect both the necessity for new investment and the evolution in the way the system is used.

We support a charging regime that comprises clear, cost-reflective charges for new connections to the network; stable, non-discriminatory charges for ongoing use of the network; and charging for usage rather than to reserve capacity.

Our views on the charging modification proposals currently under consultation are summarised below. While we comment on each proposal in isolation, we note that the impact of these proposals is cumulative and interactive. Hence, we support a wider 'joined-up' reform of the charging methodology (as described above) rather than a series of 'piecemeal' modifications.

GB ECM-11

For the charging arrangements for generator local assets

We support the principle of a cost-reflective local charge for generation users with respect to both facilitating economic and efficient connection designs (as set out in GB ECM-11) and wider reform of the charging framework.

However, we have real concerns with the modification to the TNUoS charging methodology set out in GB ECM-11 Conclusions Report and, as a consequence, do not support this amendment. Our key concern, as we demonstrated in our response to the August 2008 consultation, is that the local asset charge proposed under GB ECM-11 would not be cost-reflective.

To improve the cost-reflectivity of National Grid's GB ECM-11 proposal, we believe the following changes are required:

- Use of 132kV and 275kV overhead line and cable expansion factors that are specific to the affected Transmission Owner. In addition, given the potential range of circuit costs and the small database, application of a 'sense check' where if the actual expansion factor varies from the generic expansion factor by more than, say, 20% a circuit specific expansion factor is used.
- Circuit specific local security factors that accommodate partial redundancy in the connection design.
- As described above, a change to the definition of a MITS node that takes account of the radial parts of the GB transmission system that are shared by both generation and demand users.
- A review of the connection-infrastructure boundary which currently states "Where customer choice influences the application of standard rules to the connection boundary, affected assets will be classed as connection assets", and results in the same assets being categorised as connection for one user and infrastructure for another.

The changes proposed above would improve this modification proposal with respect to National Grid's relevant objectives of facilitating competition, cost-reflectivity and taking account of business developments.

GB ECM-13

For the treatment of the residual generation tariff in the calculation of TNUoS tariffs

We support the principle of charging generation users for use of the GB transmission system on the basis of utilisation rather than capacity. We believe that an utilisation charge would most appropriately reflect the use of the system by an increasingly diverse mix of generators, and the consequential impact on the way the transmission system is being planned and operated.

We note the proposals to modify the way in which the residual element of the TNUoS generation tariff is calculated and levied, which includes options to commoditise the residual charge based on total annual metered generation or annual metered generation during the daily peak. While we support the principle of a commodity charge, and hence believe that the options proposed under GB ECM-13 are worthy of further consideration, we believe that commoditising only a part of the charge (the residual) would be insufficient.

It is not proposed under GB ECM-13 to revise the methodology for determining the locational element of the TNUoS tariff. The transport model used to calculate the locational element is intended to reflect the costs of capital investment in, and the maintenance and operation of, a transmission system that provides bulk transport of power. It is, crudely, based on calculating the investment cost associated with adding a megawatt of generation at a specific location. This approach was adopted as a response to the view that investment in the transmission system was incurred on a capacity basis in order to meet winter peak demand; hence, it was appropriate to determine the charge on a capacity basis.

There is growing evidence, with which we concur, that a key factor in decisions about investment in the transmission system is to provide capacity that meets the expected utilisation. This evolution in the system planning process is in response to the changes in the generation mix and how those generation users operate their power stations. It is certainly not the case that a megawatt of wider shared transmission capacity is built for each megawatt of generation that connects.

The modifications proposed to the way in which the residual element of the TNUoS generation tariff is calculated recognise this evolution in the system planning process. If these modifications were implemented it would result in different underlying assumptions to the locational and residual element of the TNUoS tariff. This position is, in our view, not credible and, hence, we cannot support a change to the residual tariff without an equal and corresponding change to the locational tariff. Specifically, we believe that there should be wider shared transmission charge (recovering the sum of the current locational and residual elements) that is levied as a uniform charge across GB.

GB ECM-14

Consequential impact of CUSC Amendment Proposals 161, 162, 163 and 164

SSE supports the high level principles for charging set out by Ofgem: cost-reflectivity, simplicity, transparency, predictability and the facilitation of competition. Hence, we support a charging

methodology that charges generation users the cost of providing access to the network (through a generator only local asset charge) and a charge based on their utilisation of the network (through a wider shared asset charge). This charging framework would apply to all generation users connected to the transmission network and licensable users embedded within the distribution network, regardless of the access product used.

We note the proposals under GB ECM-14 to levy only a local asset charge and a residual charge on generation users with a short term access product (SO release, overrun or sharing). These users would not be liable for the current locational element of the TNUoS charge. Notwithstanding our view that fundamental reform of the charging methodology is required, we have serious concerns with the proposed modifications set out in GB ECM-14 and believe that, if implemented, these modifications could result in an internally contradictory charging arrangements that might have perverse consequences.

Our main concern relates to the allocation of costs. We agree that all generation users should be liable for a charge that reflects the costs of providing the local assets necessary for their connection to the GB transmission system. We also agree that all generation users should be liable for a charge for the wider shared transmission system on the basis of their utilisation of the system. Where we become concerned is with the principle that only some generation users would be liable for a further charge that is intended to reflect the investment cost associated with adding a megawatt of generation at a specific location. We do not agree that such a charge is consistent with the development of the transmission business or is consistent with the facilitation of competition.

Underlying our concern is the question of how this generation user with short term access is treated by transmission system planners. Do the transmission system planners assume that the user is not there? If so, does this mean no transmission capacity is provided for and there is no expectation of generation export? What does this mean for security of supply, and future investment signals to generation and networks? What about if an existing generation user decides to transfer from long term to short term access – what happens to the existing transmission investment and the locational signal? If the locational signal is negative, why would a generation user forfeit this payment and would this result in over-investment in the regional transmission system?

In summary, we believe that further consideration is required on this issue and would again urge a holistic view in the development of the TNUoS charging methodology.

GB ECM-15

Long term fixed TNUoS tariffs

It is the instability, uncertainty and unpredictability of the current TNUoS charging methodology that results in generator users seeking the option to fix their tariffs. Equally, it is the instability, uncertainty and unpredictability of the current TNUoS charging methodology that results in the remaining users on

variable tariffs being unwilling to be exposed to the financial consequences arising from differences between fixed and variable tariffs.

The option of long term fixed TNUoS tariffs based on the current methodology is always going to be difficult and, in our opinion, it is nigh impossible to achieve an acceptable allocation of the risks. Hence, we believe that the issue of instability, uncertainty and unpredictability should be addressed at source through a change to the charging methodology that provides stable, certain and predictable charges.

GB ECM-17

Transmission charging – a new approach

We support the proposal put forward by the Scottish Government, within the framework of a generator only local asset charge and wider shared asset charge (as described above).