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Dear Catherine,

Project TransmiT: Further consultation on proposals to change the electricity transmission charging methodology (CMP213)

National Grid, through our subsidiary National Grid Electricity Transmission plc (NGET), owns and operates the electricity transmission system in England & Wales, and is the National Electricity Transmission System Operator (NETSO) for the entire transmission system across Great Britain. In our role as NETSO we are responsible for setting Transmission Use of System (TNUoS) tariffs, calculating TNUoS charges to generators and suppliers, and recovering the associated revenue on behalf of Transmission Owners (TOs) whose assets comprise the National Electricity Transmission System (NETS). Along with the other TOs, we are also responsible for design and development of the National Electricity Transmission System, and also the development of the National Electricity Transmission System Security and Quality of Supply Standards (SQSS) which provide a framework for these activities.

We welcome the opportunity to provide a response to the further consultation on CMP213: Project TransmiT TNUoS Developments. Having reviewed the consultation and the accompanying documentation, National Grid supports Ofgem's minded to position to implement CMP213 Working Group Alternative CUSC Modification 2 (WACM2) in April 2016. This letter sets out our views on points of note within these documents including the modelling undertaken by various parties, the appropriate balance between consideration of the modelling results and the broader principles of CMP213, and the proposed implementation strategy. Our response to each of the consultation questions can be found in Annex 1.

The appropriate balance between consideration of impact assessment results and of the broader principles of CMP213

We note that extensive quantitative modelling of the impact of a number of options proposed under CMP213 has been undertaken by a number of parties. Whilst this modelling has resulted in a range of results, each indicates that future generation build profiles will be primarily driven by the Capacity Market (CM) and levels of low carbon support available to projects, via Contracts for Difference (CfDs), under the Government's forthcoming Electricity Market Reform

(EMR) package. It is the resulting generation mix which drives transmission constraints, transmission investment, wholesale electricity prices, and in turn the overall cost to consumers.

TNUoS is a secondary factor in determining the generation mix in the manner that it has a small effect on the level of CM clearing prices and CfD strike prices. The updated impact assessment modelling undertaken by Baringa shows the impact TNUoS has on overall costs for a range of fixed generation mixes under WACM2 and the status quo. The results of this analysis shows that the effect of changing the TNUoS charging methodology in line with WACM2 would result in a small effect on power sector and consumer costs in comparison with those resulting from the EMR proposals, and that the direction of the change in costs is dependent upon the generation mix modelled. Overall, we believe that the range of results lie within the margins of error for such modelling.

We note that the latest Baringa modelling strategy for treatment of generation capacity of differing technologies (which are fixed based upon a pre-determined generation mix) has been altered from the strategy adopted in the modelling in support of the original impact assessment (in which the balance of different technologies within the generation mix depended largely on profitability). Whilst we recognise that each technique has its merits, in reality the future generation mix will be dependent upon many factors, some of which are difficult to model accurately. For example, it will be influenced by government policy and how this is reflected in CfDs and the CM. This may not necessarily be based purely on economics of a given project, but also the wider socioeconomic impact which may vary as time progresses. Given this and the relatively small margins between the models for each scenario, our view is that the Authority should place more weight on a comparison of the principles behind the WACM2 and status quo charging methodologies than the modelling results that have been presented. The following provides our views on these principles in relation to the applicable CUSC objectives that any proposed change to the TNUoS charging methodology should better achieve.

1. Cost Reflectivity

The National Electricity Transmission System Security and Quality of Supply Standards (SQSS) specify the design standards used by Transmission Owners (TOs) to develop the National Electricity Transmission System (NETS). The SQSS utilises a dual deterministic background criteria to assist TOs in the design of the Main Integrated Transmission System (MITS).

Under the status quo charging methodology, the locational element of TNUoS tariffs is determined in the Transport Model using a background in which all generation output is uniformly scaled to meet demand. This background (which differs from both of the SQSS deterministic background criteria) is then used to determine the incremental effect of adding 1MW of generation to each point on the network and whilst removing a corresponding 1MW of demand from a fixed point (the reference node).

WACM2 works in a similar manner, but notably has been developed to take account of the two SQSS deterministic backgrounds within the calculation of locational TNUoS tariffs by replicating these in the Transport Model.

In addition to use of the deterministic criteria, the SQSS recognises the need for a full Cost-Benefit Analysis (CBA) when developing the transmission system, in which the cost of different transmission investment options are assessed against the potential savings in constraint costs.

Whilst subjective forecast of data (unconstrained generation output, balancing mechanism prices, etc.) may be used when undertaking such a CBA, transmission charges need to be set on a transparent objective manner. It is clear from the CMP213 workgroup's relating analysis that there is a clear link between constraint costs and generation load factor. Furthermore the workgroup's analysis indicates that this linkage varies where there are high concentrations of low carbon plant and little plant diversity as a result of significantly expensive bid prices. Mindful of the level of forward looking industry information available to National Grid, previously discussed during development of the Transmission Access Reform (TAR) and CMP192 (User Commitment Arrangements) proposals, we believe that the application of a generator's load factor and consideration of the locational diversity of the generation mix as part of the WACM2 charge calculation provides an objective transparent proxy for its impact on transmission investment driven by CBA.

Conversely, the status quo charging methodology is applied to generators on a capacity basis. In other words, it is assumed that 1MW of new generation capacity will trigger an equivalent level of transmission investment rather than applying any of the criteria set out in the SQSS. We therefore believe that this methodology does not reflect the association with transmission investment as accurately as WACM2.

2. Facilitation of Competition

In improving the manner in which the impact that characteristics of specific generators have on transmission investment costs is reflected in TNUoS charges, WACM2 will also aid competition. However, we recognise that competition is also facilitated through transparent mechanisms where parties can understand and forecast their charges. Whilst we recognise that WACM2 increases the complexity of the TNUoS charging methodology, we believe that the improved level of cost reflectivity is an appropriate trade-off between reflecting the complexity of a full CBA whilst facilitating competition through an accessible charging methodology.

To aid users' short-term understanding of tariffs under WACM2, we have included relating tariffs in our April quarterly update¹ of 2015/16 tariffs, and in our recently published Forecast of Transmission Network Use of System tariffs from 2014-15 to 2018-19² in addition to those under the status quo methodology. We have also published an indicative tariff calculator³ for 2015/16 based upon the WACM2 tariffs provided in the April publication.

3. Taking Account of Developments in the Transmission Business

In better reflecting the design standards laid out in the SQSS, we believe that customers will receive more cost reflective signals regarding the cost of transmission investment under WACM2. This will allow them to make informed commercial decisions accounting for the cost of transmission investment. As a result, with all other costs being equal, we would expect generation projects to act to minimise the impact of transmission costs at each stage of the lifecycle of their plants, meaning that development would be carried out on a more efficient basis than under the status quo.

¹ April view of TNUoS tariffs for 2015-16 (<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=32993>)

² Forecast of TNUoS tariffs from 2014-15 to 2018-19 (<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33228>)

³ 2015-16 CMP213 Tariff Calculator April 14 (<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33007>)

In addition, WACM2 proposes methodologies for the treatment of parallel HVDC circuits and island transmission links. These are new technologies to the transmission system, and as such need to be incorporated into the TNUoS charging methodology. It is worth noting that in the event that the Authority chooses not to implement CMP213 or any of its alternatives, then a further modification would be required to the CUSC to cater for these technologies in a fully transparent manner. As we currently expect the first HVDC link on the transmission system to be commissioned during 2016-17, we would require such a modification to be implemented no later than December 2015 in order to publish final 2016-17 tariffs by 31st January 2016.

Implementation

We note that the proposed implementation date for WACM2 is April 2016. TNUoS is designed to provide a long term investment signal, and as such we believe that the implementation strategy provides sufficient notice to allow the energy market time to react. Such timing would also facilitate charging arrangements for HVDC links to be in place in time for the commissioning of the first of these during 2016-17, preventing the need for any interim measures to be introduced.

Finally, on a related matter, we note the possible interaction with the preparations for EMR, and as such note that an early decision date would be preferable to enable the TNUoS charging methodology to be properly taken into account.

If you would like to discuss any of these points further, please do not hesitate to contact me or Wayne Mullins (email: wayne.mullins@nationalgrid.com, tel: 01926 653999).

Yours sincerely,

Patrick Hynes

Electricity Charging & Access Development Manager

Annex 1: Responses to consultation questions

Question 1: Do you agree with our interpretation of benefits to consumers of implementing WACM 2, including revised impact assessment modelling?

Yes. We agree that it is not possible to fully capture the complexity of the energy market and how generators will respond to the proposed changes in a single model. As there is an element of uncertainty in the input assumption data, there is a natural margin of error associated with the results, and therefore they can only provide a general feel for the impact of implementing WACM2. As the latest Baringa modelling has resulted in very little impact on power sector and consumer costs, we believe that the assessment of the proposed solution should take into account broader benefits as well as the underlying principles.

Question 2: Do you agree that the revised impact assessment modelling captures concerns raised during August 2013 consultation about the NGET modelling?

Yes. We believe that the concerns have been addressed as follows:

- conducting the modelling in relation to a number of fixed generation mixes (but allowing locational variation) removes concerns regarding modelling results being influenced by differing levels of renewable generation;
- updated modelling of the capacity market has resulted in more stable capacity margins, removing the impact of volatility on wholesale prices;
- additional sensitivities being undertaken to highlight the effect of the implementation of WACM2 under a range of low carbon generation mixes, fuel prices, and capacity assessment scenarios; and
- separate modelling of dispatch distortion effects have been undertaken to measure the possible impact of future TNUoS charges under WACM2 on dispatch decisions.

Question 3: Do you agree with our minded-to position in light of new evidence discussed below and the responses to the consultation set out in Appendix 2?

Yes. We have reviewed the additional evidence presented and remain of the view that WACM2 provides an improvement on the current arrangements for the reasons described in our main letter.

In reaching this view, we have reviewed the additional analysis that has been presented by NERA and Imperial Collage in some detail, and agree with the views expressed by Baringa in their review of this work in their report accompanying the further consultation.

Question 4: Do you agree with our minded-to position to implement in April 2016?

Yes. As discussed in our main letter, we believe that the proposed implementation date provides sufficient notice to enable the market to react to the proposed changes, whilst enabling the charging methodology to reflect the use of the HVDC links planned to be introduced in 2016-17.