



Anthony Mungall  
Electricity Transmission Team  
Ofgem  
3rd Floor  
Cornerstone  
107 West Regent Street  
Glasgow  
G2 2BA

**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

14 February, 2012

Dear Anthony,

### **Electricity transmission charging: assessment of options for change**

Thank you for the opportunity to respond to the above consultation. E.ON is not supportive of either of the options, Socialised Charging and Improved ICRP, put forward for change at this moment.

We agree with Ofgem that a Socialised approach would be inappropriate. We have always advocated cost reflective charging and our view on this remains the same. Whilst we understand the arguments put forward in support of Improved ICRP, we believe that questions still exist over the rationale for some changes which are proposed. Indeed, the benefits of Improved ICRP are not obvious as it appears to increase costs for customers. The methodology also moves significant sums of money between existing plant, undermining investment decisions that were taken in response to the present set of locational signals. Any changes made are also at risk of being unwound as a result of the implementation of the European target model.

When previously faced with very similar circumstances, in respect of BSC change proposal P229 to implement locational transmission loss factors, the Authority decided that on balance the proposal should not be implemented. We believe that a consistent approach should be adopted for Project Transmit and that the recommendation should be that the status quo is maintained.

Our responses to the issues raised in the consultation are as follows.

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

**Chapter 4 Question 1:** *Do respondents consider that we have appropriately identified and where possible quantified the impacts of the Project TransmiT options?*

Clearly with any modelling which looks so far ahead there is the high likelihood that the actual outcome will not be the same as that modelled, particularly the further out you go. One way of dealing with this is to model a number of different scenarios but this has not been possible in the timescales open to the project. This is probably the main question over the accuracy of the analysis. We are not in a position to know how robust the models are, but we have no reason to believe that they were not appropriate for the task. Redpoint were very active in seeking views from the expert group which was encouraging. However, it should be noted that the group was selected to provide expertise in transmission charging methodologies not the wider modelling of the consequences of those methodologies.

The analysis has been highly quantitative in approach. There is very little detailed assessment of the models in a qualitative sense in terms of understanding whether the principles behind them are appropriate. We do not believe that the ICRP model has been assessed fully as yet and feel that there are some questions which exist over the approach.

Our main concern is regarding the use of load factor to dilute the locational signals which arise from the year round element of the tariff. Our understanding is that this is to reflect sharing of the network by stations with differing operating regimes, such as wind and conventional plant. However, the methodology appears to apply a load factor to the whole locational signal regardless of where the plant is located or the assets affected. Therefore, a wind plant in an area dominated by wind generation would have the locational signal diluted to the same extent as one occupying an area where there is more sharing with conventional plant taking place, even though the impact on export flows from the areas could be very different. We would encourage the modelling to be updated to take account of this.

As part of the Technical Working Group (TWG) discussions National Grid undertook some interesting analysis showing the correlation between load factors of plant and the constraint costs that were caused. One such piece of analysis was contained in a paper presented to TWG2<sup>1</sup>. Fig 2 of this paper showed this correlation by plant type according to the average load factor for each fuel. Whilst a fairly linear relationship could be observed between constraint cost and average load factor for most plant types, this was not the case for wind which had a significantly higher cost per percent of load factor.

National Grid carried out some further analysis for TWG5<sup>2</sup>. This showed the relationship for different areas of the network. In some places the correlation was very high and a linear relationship could be demonstrated without significant outlier results being evident. However, in other areas the correlation was not so strong and significant outliers existed.

---

<sup>1</sup> <http://www.ofgem.gov.uk/Networks/Trans/PT/WF/Documents1/NGET%20Presentation%20slides%20-%2028%20July%20Event.pdf>

<sup>2</sup> <http://www.ofgem.gov.uk/Networks/Trans/PT/WF/Documents1/IS%20-%20Updated%20Load%20Factor%20slides.pdf>

We believe that that this relationship needs to be tested more rigorously to ensure that it does indeed exist linearly across the network.

Another issue with the present proposal is the manner in which charges are calculated based on an historic load factor. As more and more intermittent generation comes onto the network and as new conventional generation is built, load factors of existing plant will reduce. However, the present proposal does not allow for this and calculates charges based on a station's load factor over the previous five years. This means that plant which reduces its load factor will be charged at a higher rate than it should for up to five years until the average load factor reduces. Conversely, any plant which increases its load factor will attract a rate which is too low. Intermittent generation can be expected to have good years and bad years so, although there will be fluctuations year on year, there should not be any particular bias in one direction. Therefore, the present proposal appears to be better suited to intermittent generation than the plant which becomes more marginal in order to provide the backup which is needed.

***Chapter 4 Question 2: Do respondents consider that there are additional impacts which we should take into account in the decision making process and, if so, what are these?***

One impact which hasn't been taken account of is the large redistribution of money which is likely to result from a change to either Improved ICRP or Socialised charging. This will significantly affect the economics of projects which were undertaken in response to the locational signals arising from the present methodology. Investors could not have foreseen that such significant changes to the methodology would occur when undertaking those investments.

We have estimated the effect that Improved ICRP would have had on charges for 2012/13 compared with the published tariffs. We have then assessed what this would mean in terms of windfall gains and losses to current stations. We estimate that around £54m would transfer between those who pay more under improved ICRP and those who pay less. Of this amount, around £46m would be paid to just two companies. This £46m would be paid for by the five companies who stand to lose most. Within these figures are also some considerable changes in charges to individual stations. For instance, we estimate that around £35m of the above benefit would go to just six conventional plant in Scotland.

We do not believe that the modelling has taken account of the effect that such large windfall gains and losses could have on investor confidence.

We are also uncertain as to whether the analysis has assessed the likelihood of increased costs in the South causing some plant to be closed sooner than planned, thereby affecting the cost of maintaining security of supply through additional contracting costs for the System Operator.

***Chapter 4 Question 3: Do respondents consider that we have appropriately identified the potential interactions of the Project TransmiT options?***

The modelling appears to be thorough subject to the comments made elsewhere to other

questions.

**Chapter 4 Question 4:** *Do respondents consider that we have appropriately identified the likely impacts and consequences of these interactions?*

As we mention above we do not believe the effects of windfall gains and losses have been assessed. We are also uncertain why Ofgem has reached an initial conclusion that its recommendation should be to implement Improved ICRP on the basis of the analysis that it has undertaken. The evidence in the report is that this option does not improve the chances of ensuring security of supply or meeting renewables targets, but it is expected to cost customers more. We understand that short term suppressed costs need not be a good thing in a competitive market as this may promote inefficient outcomes which increase costs in the longer run. However, the analysis in the report shows results until 2020, at the end of which costs appear to be trending upwards compared with the status quo. Additionally, no estimate has been made of the costs of another year of industry work to progress a new model, or any implementation costs which may be incurred.

**Chapter 5 Question 1:** *Do respondents consider that we have appropriately identified and taken account of the key sustainability issues?*

We note the issues that have been raised. In particular we note that Ofgem believes that moving to an Improved ICRP would be consistent with the likely direction of travel of any changes which may occur as a result of the introduction of the European target model for electricity. We note that this contrasts with the approach that the Authority took when it decided not to implement locational transmission losses under P229. In making that decision, the Authority was concerned that any changes that may be required to implement market splitting would override the changes made as a result of P229. In this instance there appears to be no such concern. We believe that this perspective needs to be explained in more detail if a recommendation is made to implement Improved ICRP.

Moreover, P229 was rejected as the Authority was concerned that significant redistribution effects would take place with little apparent benefit. The evidence in the consultation document and the Redpoint analysis suggests that this is true also for Improved ICRP and as we mention above, the likelihood is that Improved ICRP would in fact cause higher costs for customers. Therefore, any decision to recommend the implementation of ICRP must explain this apparent contradiction between the Authority's stance compared with that taken for P229.

**Chapter 5 Question 2:** *Do you think there may be long term and strategic benefits associated with the development of HVDC technology, in particular the treatment of converter station costs for links that parallel the AC network, which Project TransmiT modelling has not fully considered because of the timeframe of the modelling (i.e. 2030) and the limited nature of the bootstrap options?*

**Chapter 5 Question 3:** *Do you have any supporting evidence for a different treatment of the converter station costs for the planned bootstrap HVDC options?*

In response to both of the above questions, there is nothing that indicates whether

converter station costs should be in or out of the cable costs in the ICRP model, except for the issue of consistency. In ICRP at present substation costs are not in the transport model itself but are recovered through the residual tariff. From a charging perspective these assets are no different from converter stations needed for HVDC lines apart from the fact that HVDC converter stations are relatively expensive. Therefore, in our opinion these costs should be treated consistently. This means they should either both be in the locational part of the charge, or both should be within the fixed residual charge.

## Conclusions

We do not believe that Improved ICRP or Socialised charging should be implemented. We do not accept that there is a significant issue with the present regime or that it is responsible for widespread prevention of investment in renewable generation in parts of the network as has been suggested. In our response to the Transmit call for evidence we illustrated how increased revenues, provided by higher load factors achievable in higher priced TNUoS zones, are more than capable of offsetting the additional TNUoS charges. This is one reason why E.ON and other generators continue to invest in these zones.

The case against Socialised charging is obvious and we would agree with Ofgem's conclusions in this respect.

For Improved ICRP:

- The benefits are not apparent. It leads to higher reinforcement costs, higher constraint costs and higher costs to the customer for the same low carbon generation outcome.
- It results in large redistributions of costs between parties.
- There is a risk that any changes introduced could be unwound by future changes required to implement market splitting.

Therefore, in deciding on whether or not to recommend Improved ICRP to be taken forward, the Authority is faced with a situation almost identical to that it faced when considering BSC change P229. However, with P229 there were some benefits to the proposal which were considered to be offset by the redistribution effects and the uncertainty over market splitting. With Improved ICRP there appears to only be the likelihood of increased costs.

Therefore, we believe that Ofgem should take a consistent approach and recommend retention of the status quo.

Yours sincerely,

Paul Jones  
Trading Arrangements