



chpa

Bringing Energy Together

Combined Heat & Power
Sustainable Energy Services
District Heating & Cooling

Stuart Cook
Ofgem
9 Millbank
London
SW1P 3GE
17th November 2010

Dear Stuart,

Re: Project TransmiT call for evidence

The CHPA welcomes the opportunity to respond to the initial call for evidence under project TransmiT. The UK's energy system is starting out on a period of transformational change which presents unprecedented challenges. The mechanisms for the development of offshore renewables and managing a far greater penetration of intermittent electricity sources will need to be robust and well designed if they are to function effectively for the long term. As a result, a wholesale and objective review of the suitability of the transmission charging regime is appropriate. In particular, evidence from the US regulatory assistance project¹ suggests that network regulation developed to address climate change goals at its heart will deliver better value to consumers. The CHPA recommends that the following five issues be adopted as key principles for TransmiT:

- Ensuring cost reflectivity should be a foundational principle of the review
- Locational signals for connection and dispatch of plant should consider both the predicted plant emissions as well as network constraints
- Support for demand side response and innovation should be supported by the work of TransmiT
- Work on TransmiT should be mindful of the array of other energy policy work in particular the energy market reform process
- The principles set out for transmission charging should, as far as possible, be applied to an examination of distribution charging work

Cost reflectivity in relation to embedded benefits

The transmission network exists because of the need to transport large volumes of high voltage electricity from centres of centralised generation to centres of demand. It is right that those that derive value from those networks (transmission connected generation plant and consumers) should pay for their use. Furthermore, the payments made by those that derive value from this system should reflect the cost of establishing, extending and maintaining these networks. Generators connected to distribution networks whose electricity does not flow on the transmission network should, therefore, be exempt from transmission charges. An extension of transmission charging to embedded generation would undermine competition as those generators would be paying for a service for which they receive no value. Ensuring that those who derive direct value from the transmission system are those who pay for it and that the payments are cost reflective is vital to ensuring that transmission charging is fair and costs minimised.

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¹ www.raponline.org

Locational signals

The nature of much of the planned new low-carbon generation is constrained by location either due to resource (wind), prescribed sites (nuclear), waste disposal (CCS) or available heat demand (CHP). Traditionally transmission network charging has been based on a model in which the charge paid by the generator is, in part, reflective of the cost to the network of providing access including minimising losses. **As low carbon generation is geographically restricted locational signals from transmission pricing will be ineffective as generators cannot respond to such a signal.**

Furthermore, the additional costs of paying locational fees will increase the cost of generation and these may have to be covered through other mechanisms such as the RO. The result will be to increase the cost for the consumer in return for no additional benefit. Finally, and most importantly, **the savings arising from reduced grid losses (through locational signals) will be an order of magnitude smaller than savings delivered by low carbon technologies** and, therefore, accounting for the environmental benefit of the generation plant itself should be a key feature within transmission pricing.

For example, a CHP plant must be located next to heat demand to deliver the heat. For a 'good quality'² CHP plant, the primary fuel savings are at least 10% of input fuel (although this can be as high as 30%) compared to separate heat and power generation. These energy and emissions savings are far higher the 2-3% savings obtained from reducing transmission losses through locational drivers. It is, therefore, preferential to encourage a low carbon or renewable CHP plant to locate and deliver useful heat rather than operate as a less efficient power only generator. Should locational signals discourage the establishment of such plant; the system will be operating in direct conflict with the stated aims of both Government and Ofgem.

A possible mechanism for recognising the environmental benefits of low carbon generation would be to consider a rebate on, or exemption from, charges to low carbon generators. Another potential option is to consider altering the ratio between the contribution to transmission charges paid by consumers and generators in favour of consumers. Altering the ratio in favour of consumers would not, however, discriminate between low and high carbon generation and would, therefore, be of limited value.

Consider demand side options and innovation

The development of the energy system over the coming decade is going to be very costly. Ofgem estimates that £200 bn in investment will be required between now and 2020³. The cost of this system will be borne, in the end, by consumers. A strong emphasis on controlling costs in all aspects of the energy market, whilst achieving goals of security of supply and emissions reduction is, therefore, vital. The value that time specific demand reduction and peak demand services can deliver through embedded generators may reduce the need for the most costly investments in new generation. Project TransmiT should consider the role of the full array of demand side response and understand how the transmission arrangements can be used to facilitate these services.

² A CHP plant always operating as good quality, under the CHP Quality Assurance (CHPQA) Programme, the UK mechanism for compliance with the Cogeneration Directive

³ Project Discovery, October 2009

www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=73&refer=markets/whlmkts/discovery

Linking with parallel processes

Whilst the CHPA accepts the need for a review of the transmission connection and charging framework it falls at a time of significant wider policy work which may impact upon the work of TransmiT. In particular it is vital that Ofgem and other key stakeholders such as transmission grid owners and operators are conscious of the work surrounding electricity market reform (EMR) and take this into account when forming new policy. The CHPA would encourage a strong and active dialogue between the regulator and DECC to understand the key issues and developments in thinking on EMR so that they can inform the TransmiT process. It is key that investors have confidence in the system for long term investment but a rush to conclude project TransmiT would likely fail to account for wider electricity market work and lead to a system that would need to be altered subsequently. The CHPA encourages Ofgem to set out a clear timetable, developed in discussion with DECC for the completion of project TransmiT which strikes a balance between the competing needs of investors and the wider EMR work.

The CHPA is encouraged by the interest from new market participants in exploiting the combination of transparent price signals and flexible generation capacity. Such developments can contribute today to the efficient and cost-effective delivery of services to the system operator, including balancing services and short-term operating reserve, and in the future to active management of distribution networks and widespread demand-side participation. International experience indicates that these developments will, in turn, have the capability to manage and mitigate costs to consumers⁴. In advancing the process of both the EMR and Project Transmit, we would encourage Ofgem to continue to develop the positive approach towards supporting innovation that was initiated in the low Carbon Networks Fund and which will persist under RIIO. Subsequently we would hope that Ofgem continues to use its independent position to support active management measures where they deliver a cost-effective outcome for consumers.

Wider application of principles

A holistic overview of the transmission system should seek to adopt principles that can also be applied to reviews of distribution charging. The array of different electricity distribution network operators has led to a variety of different connection methodologies which significantly add to the regulatory burden of companies supplying embedded generation equipment, such as CHP units, nationwide. For example, the super shallow connection principle adopted at transmission scale may facilitate the development of new low carbon decentralised generation. In addition the principles of cost reflectivity and accounting for the environmental benefit of plant are vital to ensure a fair system that facilitates a low carbon economy.

The CHPA welcomes Ofgem's engagement a wider array of participants and the use of stakeholder meetings to facilitate dialogue. The CHPA will continue to provide constructive engagement with the regulator to ensure that the needs of consumers and the industry are met in the best possible manner.

Yours sincerely



Dr Tim Rotheray, Policy Manager

⁴ Clean First: Aligning Power Sector Regulation With Environmental and Climate Goals. www.raponline.org