April 2016

IET Energy Policy Panel – Reflections on CMA’s locational charging remedy

The IET is one of the world’s leading professional bodies for the engineering and technology community and, as a charity, is technically informed but independent. This submission has been prepared on behalf of the Board of Trustees by the IET’s Energy Policy Panel, an advisory body made up from a select group of IET members with deep expertise in the field of energy.

Over the years the Panel has built a respected reputation amongst policy makers for our impartiality and the balanced portfolio of energy expertise that resides within the Panel’s membership. Our key strength has been our expertise on the current and future engineering challenges our energy system will face as it adapts to a low carbon environment.

As the CMA will have likely heard during its energy market investigation, the electricity system is in the process of adopting greater amounts of communications, data and automation technologies, to name a few, to ensure it can facilitate and manage a low carbon electricity system. A sample of anticipated changes on our energy system that will need to be managed can be found in Figure 1.

There are a number of engineering complications that will arise as these changes occur on our electricity system, and economic incentives for generation of all kinds must be considered carefully and with clear understanding of wider energy policy and existing drivers for investment and dispatch. It is the view of the IET that in the context of this complex and changing generation market, the CMA’s proposed remedy to implement the charging of transmission network losses on the basis of location, and assigning 100% of losses to generation, has not yet been sufficiently assessed. Although the benefit appears significant, i.e. £130M to £190M, this only represents less than 0.2% of total electricity costs. As far as customers are concerned it would only result in a reduction in their electricity bill of less than 0.3%, and we would conclude from this that the case for introducing zonal transmission losses is weak. We are also concerned that more consideration needs to be given to the technical and commercial aspects of implementation. Ideally a detailed impact assessment needs to be performed which takes full account of the impact on all affected parties. We believe this would be very helpful in judging whether or not the scale of the potential benefit is justified.
Utilising the deep engineering expertise within our membership, the IET would be pleased to meet with the CMA to discuss the issues mentioned in more detail.

Yours sincerely,

Paul Davies,

Head of Policy, the Institution of Engineering and Technology
Figure 1

TODAY

Today's Supply Chain

2030

Generation Providing Control
(All transmission connected)
10-15
large generating units in frequency control mode

National

Generation Providing Control
(Transmission & Distribution connected)
600,000
if 10% of small units using waste, hydro & PV are assisting frequency control

Regional

Distribution Network Automatic Controls
(Voltage Regulation Devices)
10,000
devices

Commercial

Distribution Network Automatic Controls
(Voltage Regulation Devices Plus Smart Innovation)
900,000
devices

Local

Automatic Controls in Homes
(Home Energy Management)
None
in broad terms, all demand is passive

Home

Automatic Controls in Homes
(Home Energy Management)
15 million
if half the smart meters link with energy management devices

Taken from: “Electricity networks - handling a shock to the system”, December 2013 – An IET position statement on the whole system challenges facing Britain’s electricity network

For further information on how the IET can assist, please contact:
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