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Dear Colleagues

## **Response to Ofgem Open Letter: Charging arrangements for embedded generation**

Metropolitan Infrastructure is a subsidiary of BUUK Infrastructure owning and operating district heat networks in Great Britain. It is in this context that we respond to Ofgem's open letter of the 29 July 2016 on the charging arrangements for embedded generation. We note that the Association of Decentralised Energy (ADE) has provided a detailed response which be broadly support. Our comments seek to augment those made by the ADE.

District Heat Networks will play an important part in moving to a low carbon energy infrastructure. Embedded generation is an important component of district heating solutions where electricity generated and exported to premises within the development or to the wider licensed distribution systems will form a significant component of the economic and environmental business case. Making embedded generation unduly more expensive because of undue changes to transmission charging arrangements may adversely impact the development of district heating

To illustrate our point we refer to the development at King's Cross, London, by way of example. Once completed the site will comprise 2,500 homes and 5m ft<sup>2</sup> of commercial space. The site is serviced by a heat network which Metropolitan own and an ESCo which Metropolitan manage and have a stake. The ESCo has 2 x 2MW CHP engines in operation; in addition we are preparing to add a 1.5MVA fuel cell. This embedded generation plant delivers a 60% saving in carbon when compared to a 'business as usual' solution. This is a great example of how UK heat strategy reduces carbon emissions. The investment case for the ESCo is challenging. We are therefore our concerned that changes to the embedded generation model may have a detrimental impact on the economic case. This could compromise the UK's heat strategy and have an adverse effect on deployment of similar projects. We believe efforts should be more focussed on considering mechanisms that provide additional support to

embedded generators to encourage investment in heat networks as part of UK strategy to reduce carbon emissions.

Whilst we agree that effective charging methodologies need to be in place to enable transmission system operators to recover their legitimate costs (as permitted under the price control regime), we are concerned that the scope of Ofgem's open letter is limited to only look at one narrow area of transmission charging, and does not consider the wider transmission charging framework and the impacts that that has on the system. We believe a broader review is required. Whilst the CUSC provides a mechanism whereby CUSC parties can raise change proposals to address specific (narrow) issues they have with the charging methodology, the CUSC change process is largely ineffective at bringing about wider strategic change.

We are in many ways in the "sunset" years where energy needs are met by centrally dispatched large scale generation to a "new dawn" where energy needs will be met from a much more diverse and decentralised generation base. In meeting these future challenges a broader, more transparent debate is required on the future role of transmission and its transition to that role. This should include a top down assessment on how transmission should be funded.

The focus of Ofgem's open letter is on benefits that generators with a capacity of less than 100MW receive when they are embedded in a distribution system compared to when they connect directly to the transmission system. Ofgem's letter appears to be underpinned on the proposition that the embedded benefits are unfair. However, we see no justification for this premise. On the contrary we think concept that parties (suppliers or generators) should be required to pay transmission charges in respect of a transmission system or transmission services they do not use appears fundamentally flawed and devoid of any logic and totally against the principles of cost reflectivity. In their open letter Ofgem state:

*"The embedded benefits we have identified include both the payments that EG can receive for helping suppliers to avoid transmission demand charges and the avoided transmission generation charges that sub-100MW EG does not pay".*

We disagree with the concept of gross charging. We think the use of the term "embedded benefit" incorrectly frames the reality and creates the illusion that embedded generators results in some form of undue cross subsidy. This is not the case:

- Suppliers avoid the transmission demand charge because in contracting with embedded generators they avoid using the transmission system, for some, or in the case some smaller suppliers possibly all ,of the energy they convey to their demand customers; and,
- Sub 100MW EG avoids transmission generation charges because it does not use the transmission system.

Ofgem indicate that these costs are recovered in the residual element of TNUoS charges and that the residual element of demand charges is more than 5/6 times the locational element<sup>1</sup>. Further, Ofgem comment that this residual charge has increased significantly in recent years and is likely to increase by a further 160% in the next four years. We recognise that sunk/ fixed costs of developing the transmission cost need to be recovered. However, in general, we think such costs should be recovered from those parties who are the cause or driver for them being incurred. Introducing 'penal' charges in place in respect of embedded generation does not offer a sustainable solution (the charges are penal because parties are being penalised for using embedded generation and for not using the transmission system).

We think a more detailed assessment is required of the drivers in the very high increases in costs recovered by the residual element of transmission charges and how such costs should be recovered and from which parties. We accept that certain costs will need to be socialised. However, further work is required to determine the classes of customers across which different elements of the costs should be socialised with a robust justification behind the conclusions.

Yours faithfully

Mike Harding  
Head of Regulation

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<sup>1</sup> Table 1 of Ofgem's open letter