



Bringing Energy
Together

CHPA response to consultation for the RIIO-ED1 electricity distribution price control November 2012

The Combined Heat and Power Association (CHPA) welcomes the opportunity to respond to the RIIO ED-1 overview consultation. The CHPA is the leading advocate of an integrated approach to delivering energy services using combined heat and power and district heating. The Association has over 100 members active across a range of technologies and markets and is one of the leading industry bodies in the sustainable energy sector.

RIIO ED-1 will impact on the membership of the CHPA in a number of ways, including:

- The connection of gas fired and renewable CHP to the distribution networks;
- The development of heat networks and their benefits to the local electricity network; and,
- The operation of demand side services, such as active demand response to alleviate local grid constraints.

The move to more active management of the electricity distribution networks will be key to ensuring a cost optimal solution to decarbonising energy use. DNOs operating under RIIO ED-1 have a central role in facilitating the deployment of lower carbon technologies in a cost efficient manner.

The CHPA has restricted its response to a few key concerns set out below:

- 1. Stakeholder engagement.** The working groups designed to develop proposals around RIIO ED-1 saw a gradual fall in engagement from non-DNO participants over time. Clearly, DNO input is vital but their level of expertise and understanding of the regulatory regime led to conversations that effectively excluded non-DNO participants from much of the work. The current DPCR5 price control was often cited by DNO participants as having addressed concerns that were raised by non-DNO stakeholders, effectively limiting discussion of alternatives to resolve current limitations. As Ofgem seeks to broaden stakeholder engagement, it is important to appreciate limited level of knowledge and expertise among non-DNO stakeholders compared to DNO counterparts and ensure their concerns are adequately understood and considered.
- 2. The proposed removal of the connection incentive.** DN connections for embedded CHP generators remain a substantial barrier to their deployment due to the costs associated with connections. The creation of the LCNF has helped to recognise the value of distributed generation in providing more innovative solutions to alleviating localised grid challenges which can mitigate connection costs. While the connection incentive is expected to be replaced with a variety of incentives, their interaction is not certain to

deliver the same effect as the existing incentive. We would recommend that the opportunities offered by distributed generation and the challenge of barriers to access for distributed generators be closely considered in the development of incentives to ensure that connection is encouraged.

3. The consultation also proposes the consideration of a low carbon connection incentive. If this were to be introduced, it is vital to ensure a definition that accurately reflects the breadth of value brought by embedded generation. For example, embedded gas-fired CHP can provide rapid and controlled dispatchable power generation to alleviate system stresses. In addition, it is far more energy and carbon efficient than equivalent peaking plant (such as OCGT or diesel generation) that would otherwise be used to provide these services. As well as reducing grid carbon intensity there are clear capacity efficiency benefits from embedded CHP. Inclusion of both gas and renewable CHP in any low carbon incentive is vital if the overall system (including capacity services) is to be as low carbon as possible.
4. Heat networks. The consultation notes that DECC has identified urban heat networks as having a key role to play in delivering low carbon heat and that individual solutions are best deployed in less dense areas. The consultation notes that it is too early to determine the impact of heat networks on the operation of the DN system. Earlier this month, the CHPA organised a visit to Bilund in Denmark focussed on understanding how heat networks, embedded generation, thermal storage and flexible demand are combined to provide cost effective electricity system services at both a national and local level. In a future where greater penetration of decentralised generation-- including intermittent renewables – is likely, the role of heat networks in providing efficient local services should be a clear area of focus for DNOs serving urban areas. In addition, as the electricity system decarbonises, we may well see a greater use of large heat pumps on heat networks which, combined with thermal storage, can be used to provide electricity demand shifting. The innovation aspect of RIIO must effectively facilitate the exploration of the value of heat networks to DNOs to ensure that the design of future heat networks exploits the opportunities for electricity system services. The CHPA would welcome the opportunity to present the learning from the visit to Denmark to the Ofgem RIIO ED-1 team.
5. As Ofgem considers how DNOs should accommodate significant increased demand from heat pumps and electric vehicles, thought should be given to DECC's heat strategy and where government has indicated where individual heating and communal solutions are best located. The installation of a heat pump at a large heat demand in an urban centre may significantly increase local network stress whilst sterilising the opportunity to use that load for the securing of a new heat network.

The CHPA would welcome the opportunity to discuss any of the above in further detail with Ofgem.

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