26 February 2018

Chris Brown
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Ofgem
9 Millbank
London
SW1P 3GE

Dear Chris,

Consultation on principles to be considered when recovering the costs of providing 'flexible connections'

Please find below the response from Energy Networks Association (ENA) to the above consultation in which Ofgem seeks views on a number of policy issues brought to light by SSEN's proposed modifications to their Statement of Methodology and Charges for Connection and which largely relate to the recovery of costs incurred in the provision of 'flexible connections'.

ENA welcomes the opportunity to respond to the consultation. This response reflects the collective views of our electricity Distribution Network Members (DNOs) and their 'in principle' position on the questions set out in the consultation and the issues raised therein. Our DNO members will also respond individually to the consultation which will highlight any issues more specific to the particular characteristics of their network and their experience to date of planning, delivering and operating flexible connection schemes.

About ENA and our members
ENA represents the "wires and pipes" transmission and distribution network operators for gas and electricity in the UK and Ireland. This response comes on behalf of a majority of our electricity DNO members[1] who control and maintain the critical national infrastructure that delivers vital services into customers' homes and businesses.

Response to Consultation Questions

Question 1: Do you agree with SSEN's approach to classify the costs relating to operating 'flexible connections' as 'operation and maintenance' (O&M)? Please explain your reasoning.

'Flexible connections' can cover a variety of schemes which require different levels of control. Schemes can vary from very local type schemes (where control actions can be implemented with field based devices) to more centrally managed schemes (which require central software to instruct control actions and send to field devices to enact them). We agree that these different types of scheme can attract different implementation and O&M costs, relative to a standard connection.

For example, where centrally controlled (i.e. at a single substation or in the DNO control room), we agree that there are costs in both operating and maintaining components associated with the Active Network Management (ANM) scheme. These costs are primarily relating to:

[1] These are Northern Powergrid, Scottish Power Energy Networks, UK Power Networks, Scottish & Southern Electricity Networks, Western Power Distribution.

- ANM software support and licensing; and
- IT/IS maintenance and support

Where the ANM scheme only provides benefits for a clearly defined individual connection or set of customers (e.g. distributed generators) and identified capacity, then it is appropriate, depending on how the scheme has been classified, that these additional costs associated with the ongoing operation and maintenance of the ANM scheme are passed through to those benefiting from the scheme.

Where the ANM scheme provides benefit to a wider group of users and/or covers an area of undefined capacity, then it is no longer appropriate to apply the same methodology. Under these circumstances we would expect that the costs would be socialised across all users. As set out in response to question 3 below, the modification proposal raised by SSEN is quite specific and we believe the costs they are targeting relate to operation and maintenance of the flexible solution only.

Question 2: Do you agree with SSEN's proposed principle that a flexible connection cannot be a 'Minimum Scheme'? Please explain your answer

We believe that under the current definitions within the Common Connection Charging Methodology Statement ("CCCMS") it is possible for ANM to meet the criteria, in part, for both a minimum and enhanced scheme. Its true definition, however, cannot be adequately described by either as it does not conform to the traditional connection criteria that the CCCMS was written to support. A flexible connection is often a compromise between cost of connection, speed of connection and capacity.

Whilst truly neither a Minimum Scheme nor an Enhanced Scheme, a flexible connection may appear to be more like a minimum scheme or an enhanced scheme depending on the circumstances in each case. For example:

a) A flexible connection offer may be less expensive than a standard offer and meet the requirements of the customer in terms of both speed and capacity of connection. In such cases the final solution closer meets the criteria for a 'Minimum Scheme'.

b) A flexible connection may be more expensive than a standard offer (e.g. where additional IT infrastructure is required), but due to the speed at which the connection can be offered it is accepted by the customer, hence closer meets the criteria for an 'Enhanced Scheme'.

The above examples illustrate some differences, there may be other aspects that cause a flexible connection to fall outside the current standard definitions and may itself be considered an 'interim solution by a customer.

Therefore, the precise definition of a flexible connection is a wider issue that requires further discussion across the industry to ensure a common understanding and clear definition. This is being taken forward through established industry work groups as referenced in the Ofgem letter dated 29 January 2018 but this should not restrict ability to offer flexible connections in the meantime.

Question 3: Under the Common Connections Charging Methodology ('the CCCM'), the ongoing costs of operation and maintenance relating to additional assets requested by the connecting customers (over and above those associated with the Minimum Scheme) will be payable in full by that customer (not supported through the Use of System Tariff).

Based on:

- **SSEN's interpretation of the 'Minimum Scheme',**
- **SSEN's proposed classification of flexible connections' costs as 'O&M', and**
- **the CCCM**

As presented in our previous responses, where the design is such that additional assets are required over and above what could be classed as the 'minimum scheme', and these assets can be solely attributed to a single customer or group of customers, against a defined capacity, then it is appropriate that these costs are met by those directly benefiting from connecting to the scheme. It should be noted, however, that ANM schemes do not always have attributable O&M charges due to the nature of the infrastructure required.
Where a central managed ANM scheme is used to facilitate 'flexible connections', that can provide benefits to a wider group of users and/or control over an area of undefined capacity we believe this methodology is no longer appropriate.

Under SSEN's proposed methodology, the entirety of costs of 'flexible connections' will be borne by the connecting customer.

Do you agree with SSEN's proposed apportionment of costs of 'flexible connections' and stated rational (that all of these costs are bespoke and specific to the connection, do not provide any value to wider use-of-system customers and should not be recovered from the wider customer base)? Please explain your answer.

Where the ANM scheme has a well-defined purpose, a specifically identified base of connecting customers (or individual customer) and the benefits derived by each connecting customer can be identified and allocated (i.e. the additional capacity connected as a share of total capacity released) then it is appropriate to apply this methodology.

Where an ANM scheme can provide benefits to multiple users and/or does not have a defined capacity and/or cannot be attributed to a specifically identified base of connecting customers then it is no longer possible to apportion costs in this way. The benefits of the central ANM software and other control elements of 'flexible connections' applications go beyond just the 'flexible connection customer'. By evolving the use of ANM, additional benefits such as accelerating the deployment of low carbon technologies (e.g. EVs, Energy Storage, etc.) and optimising the use of our networks by enabling non-build solutions (e.g. flexibility services, network reconfiguration, etc.) can be achieved.

We note in the case of the specific proposal raised by SSEN, the flexible connection costs that they are seeking to recover directly from customers through an annual O&M charge are limited to third party service costs that are charged and incurred by SSEN annually in operating and maintaining the flexible connection. These costs are "bespoke and specific to the connection". All other costs would continue to be recovered in the normal way.

Question 4: Are there any relevant differences between types of flexible connections (e.g. timed, ANM, etc.) which could be considered in determining the approach to classifying and allocating associated costs? Please explain your answer.

'Flexible connections' can cover a variety of schemes which require different levels of control, from:

- **Locally controlled schemes:** refers to those schemes where control actions can be implemented with field based devices. A timed connection would be an example of a scheme with local control; to

- **Centrally controlled schemes:** refers to those schemes that require central software to instruct control actions and send those instructions to field based devices to enact them.

As the different applications for flexible connections require different control strategies, their costs will also be different. Largely, they will all have the same costs categories associated with them which are explored in question 5.a. Whether operation and maintenance costs associated with the control strategies should be directly attributable to the customer or socialised, which is the main issue raised by SSEN, will depend on the circumstances in each specific case.

Question 5a: The following is primarily addressed to the Distributors. How do you currently classify and recover the costs of 'flexible connections'? What are the reasons for your approach? Does your approach differ depending on the type of scheme? How do you expect your current approach to evolve (if at all) over the medium term (next 3-7 years)?

Whilst it is noted that there are some subtle differences in approaches across GB, in general there has been a reasonable level of alignment between DNOs. Costs for flexible connections can broadly be broken down into three main categories:

- ANM System Costs
    - Central control software and associated IT/IS
        - Relates to the cost of installing and developing the software for ANM zones in IS and Control Room environments. It also covers the overall design of the ANM zones, but not each individual customer configuration
    - Field monitoring equipment
        - Relates to the cost of upgrading RTUs and installing additional monitoring equipment on the network, where required

- Sole Use Costs
    - Relates to the costs that are attributed to the customer connecting under a flexible connection. These are mainly capital costs for the customer's site connection, but do include some development costs for commissioning the customer in the ANM software (if centrally controlled);
- O&M Costs
    - Sole use
        - The ongoing operational and maintenance costs relating to sole use assets
    - System
        - The ongoing operational and maintenance costs relating to centrally managed ANM schemes (both software and hardware) as previously described. These are the costs that SSEN's modification proposal focuses on.

The general approach to date has been that the ANM system costs have been apportioned between a defined set of customers, based on the connected capacity of each as a share of the total capacity released (where the total connecting capacity is known and the total capacity released can be identified). Or where the scheme has been developed solely for a single customer, that customer would then fund the costs in their entirety, with any subsequent customers then being captured by the Electricity Connection Charges Regulations ("ECCR") 2017 'Second Comer' rules.

Sole use costs are always payable by the connecting customer.
With O&M costs, there are some differences in the application of these costs across DNOs depending on the nature of the scheme. These will captured within individual DNO responses.

How do you expect your current approach to evolve (if at all) over the medium term (next 3-7 years)?

We note the ongoing work within the ENA's Open Networks project and Ofgem's Targeted Charging Review, however the need to change the current approach has already arrived for some DNOs. Central ANM schemes are now being designed in some cases to control much larger areas of network, with participation no longer restricted to just distributed generation customers, but also including operators of other technologies. Even where this is still the case, the size of network and undeterminable level of capacity released may make it difficult to apply the CCCMS and ECCR methodologies as they are today.

At a distribution level these evolving designs now have the ability to manage technology agnostic flexibility services (demand side response, energy storage and aggregators of multiple virtual power plants), provide capacity to accelerate the deployment of low carbon technologies (such as electric vehicles and heat pumps) and re-configure networks to optimise the capacity within existing assets. These systems can also facilitate DER providing solutions to whole system challenges.

We therefore believe that where these new schemes are being developed with wider customer benefits, system costs and O&M costs should now be socialised.

a. **The following is primarily addressed to the connecting customers. We note that 'flexible connections is not defined anywhere in the Charging Statement. SSEN is also proposing to remove paragraph 6.32 which details the 'operation, repair and maintenance' services they provide. What are your views on the clarity and internal consistency of the Statement (CCCMS)?**

We believe this question should be answered by connecting customers.

b. **The following is primarily addressed to the connecting customers. What are your views on SSEN's proposal – that where there are annual third party costs incurred in operating the 'flexible connections' , SSEN will pass these charges onto the customer on an annual basis?**

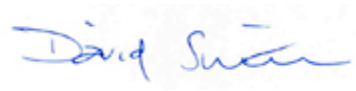
We believe this question should be answered by connecting customers.

Question 6: Do you believe the modifications made in SSEN's Statement are reasonable and are in line with the Relevant Objectives? Please provide reasons for your response.

As per the previous responses within this consultation, we believe that where the criteria for charging O&M can be met, the proposals are reasonable.
If you have any questions on this response, please contact John Spurgeon, Head of Regulatory Policy email: john.spurgeon@energynetworks.org

In addition, I would extend the offer for you to meet with DNO representatives who would be happy to discuss the issues raised in this letter in more detail.

Yours sincerely



David Smith
Chief Executive