Registered Office:
Newington House
237 Southwark Bridge Road
London SE1 6NP

Registered in England and Wales No: 3870728

Company:
UK Power Networks
(Operations) Limited

Chris Brown
Head of Core and Emerging Policy, Energy Systems Integration
Ofgem
9 Millbank
LONDON
SW1P 3GE

By email only to: alena.fielding@ofgem.gov.uk

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Dear Chris

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

Thank you for the opportunity to respond to the above consultation, this letter should be treated as a consolidated response on behalf of UK Power Networks' three distribution licence holding companies: Eastern Power Networks plc, London Power Networks plc, and South Eastern Power Networks plc. For simplicity, they are referred to in this letter as UKPN.

This response should be read in conjunction with the ENA response to which we have contributed to and are fully supportive of. The responses to your specific questions in the appendix to this letter provide additional information specific to UKPN's approach to flexible connections/ANM schemes.

If you have any questions on the above, please do not hesitate to contact me.

Yours sincerely

James Hope
Head of Regulation & Regulatory Finance
UK Power Networks

Copy: Paul Measday, Regulatory Reporting & Compliance Manager, UK Power Networks
Alena Fielding, Ofgem

Return Address:
Newington House
237 Southwark Bridge Road
London
SE1 6NP

Appendix

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.**

Whilst noting that compliance with P2/6 is implied in the application of the Common Connection Charging Methodology Statement (CCCMS), since this is neither clearly articulated, nor applicative to generation, UKPN's general approach to date has been to consider Active Network Management (ANM) closer to being a Minimum Scheme (in as much as this can be qualified by the existing CCCMS) and as such not pass through any O&M costs associated with the ongoing costs of the ANM system. It is also worth noting that our ANM schemes now cover wider zones with the level of released capacity undefined, which makes it increasingly difficult to apportion any ongoing charges. In addition, we are now designing ANM schemes to support technology agnostic flexibility services and network based solutions to optimise capacity, providing benefits to all customers.

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

Whilst acknowledging the response given via the ENA of which we are fully supportive, it should be noted that where we have considered ANM schemes as a minimum solution we have used the following reasoning:

- A Minimum Scheme is defined by the CCCMS as the *"scheme with the lowest overall capital cost (as estimated by us [the Distributor]), solely to provide the Required Capacity"*. The Required Capacity is defined as *"the maximum capacity agreed with the customer"*.

Flexible connections are deployed in constrained areas of the network where significant reinforcement would normally be required to connect more generation or demand. If the customer were to connect via a traditional connection they would likely be required to contribute towards the reinforcement and/or have to wait for the works to be completed before they could connect.

A flexible connection should generally offer the lowest overall capital cost when compared to traditional reinforcement, unless solely being offered for speed of connection, and provides the customer with timely access to the network. In offering a flexible connection the customer is also informed of the indicative costs for a traditional connection. Where these costs are higher, the flexible option meets the first criteria for Minimum Scheme.

The Required Capacity is defined as a '*maximum capacity agreed with the customer'*. During the connections process, we present the customer with the level of curtailment that their plant is expected to endure. At this point the customer agrees with us their maximum capacity and levels of curtailment (or times of operation). Therefore, this capacity is 'agreed with the customer' as per the definition of Required Capacity. This would meet the criteria of 'providing the required capacity' as the CCCMS does not currently provide any distinction between constrained or un-constrained capacity provided.

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
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 <u>all of these costs</u> 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.

As stated in our response to Q2, we believe it is possible for flexible connections to closer meet the criteria for a 'Minimum Scheme'. The CCCMS makes no differentiation between firm and un-firm capacity, and P2/6 makes no specific reference to 'Minimum Scheme'. Where additional assets have been installed and the costs are higher than the Minimum Scheme, then the scheme can no longer be classified as the Minimum Scheme.

Regarding third party costs, namely for the central ANM software used for 'flexible connections', our position differs from SSEN's as the software solutions we are now installing can provide wider benefits which go beyond the connecting customer. Our analysis of SSEN's rational is presented below:

- **All of these costs are bespoke and specific to the connection and do not provide any value to wider use-of-system customers**
  During initial deployment of our 'flexible connections', all costs were bespoke and could be attributed to a specific number of connecting customers where the released capacity could be defined. As our understanding of 'flexible connections' developed, coupled with ANM software and RTU (Remote Terminal Unit) technology enhancements, other applications for the ANM software have evolved. This can be seen within the design for our South East Coast ANM scheme which covers an area consisting of over 150 grid and primary substations and, as well providing 'flexible connections', also provides the functionality to control technology agnostic flexibility services and network solutions. Dynamic control and optimisation of the distribution network allows us to accelerate the deployment of low carbon technologies in the area. The benefits therefore go beyond just the 'flexible connection customer'.

- **Should not be recovered from the wider customer base.**
  As stated above, in areas where the benefits go beyond just the 'flexible connection customer', there is a clear case for socialising these costs across the wider customer base.

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

As stated in the ENA response, 'flexible connections' can cover a variety of schemes which require different levels of control and sophistication. Whilst the three main categories remain the same (i.e. system costs, sole use costs and O&M charges), the allocation of costs can be different. Where we have deployed timed connections or stand-alone operational schemes the costs are solely borne by the connecting customer and subsequently recovered under ECCR 2017 'Second Comer' rules where other customers are able to benefit from any new network assets that have been installed. These schemes have a defined capacity and identified customer base. In line with our response to Q3, where centrally controlled ANM schemes are being deployed over much wider areas the benefits go beyond just the 'flexible connection customer', and as such there is a clear case for socialising these costs across the wider customer base.

5.

a. **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)?**

UKPN's current charging methodology is set out below:

Cost Category	Description	Current Charging Methodology
Central ANM Feasibility Costs	Includes the feasibility study for a flexible connection and the curtailment assessment for that particular customer	Solely Funded by ANM customers
Central ANM System Costs	Relates to the cost of installing and developing a centralised software for managing ANM zones in UKPN's IS and Control Room environments and associated field monitoring equipment	Solely Funded by ANM customers (via fixed £/MW apportionment)
Sole Use Costs	Relates to the ANM costs that are attributed to the customer connecting under a flexible connection. These are mainly capital costs for the customer's site connection	Solely Funded by ANM customers
Central ANM O&M Costs	The ongoing operational and maintenance costs relating to ANM schemes (both software and staff)	DUoS Funded

For our existing schemes it has been possible to allocate system costs fairly across a known customer base and a defined network capacity. Since we have generally considered these schemes as the 'Minimum Scheme' we have looked to socialise the ANM system O&M costs.

We have recently undergone a thorough review of our charging methodologies for centrally controlled ANM schemes. Our proposal is that both system costs and O&M costs (shown in the 2nd and 4th row of the table above) are socialised, where the scheme serves an area of undefined capacity and/or can facilitate the following use cases:

- Flexible demand & generation connections;
- Operational inter-tripping;
- Management of flexibility services;
- EV management;
- Constraint management; and
- Load shifting/Network reconfiguration.

b. 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)?

To be answered by Connecting Customers.

c. 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?

To be answered by Connecting Customers.

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.

UK Power Networks position is covered in our responses to the previous questions.