

Energy Networks Association
4 More London Riverside
London
SE1 2AU

25 September 2020

Sent by email to: opennetworks@energynetworks.org

Dear Sir/Madam

2020 Flexibility Consultation

This letter contains feedback from Centrica on the Open Networks Project 2020 Flexibility Consultation paper and the specific product papers that are being consulted on.

General comments

We support the ENA's aim through the Open Networks Project to simplify and standardise flexibility procurement processes. We welcome initiatives that increase opportunities for commercial flexibility providers and, through aggregation, end consumers to benefit from supporting more efficient operation of the network and the UK's transition to Net Zero.

Delivery of several Open Networks products have already made it easier for us when pursuing connections to the distribution network and participating in DNO tenders for flexibility. However significant challenges remain. We are keen to see improvements in procurement volumes, transparency around DNO decision making and measures to ensure flexibility opportunities are open to aggregated response from smaller providers, including residential DSR. We continue to have concerns about the planned expansion of ANM.

Please find our response to the individual questions below.

Consultation questions

Q1 – Do you agree with our proposals within this consultation paper and if not, please provide us with any rationale and alternative proposals? This feedback can be generic to our proposals or provided on a product by product basis.

There are several aspects of the proposals where Open Networks needs to be more ambitious and to better accommodate the needs of flexibility providers. We have chosen to address these on a product by product basis below.

One broad area that needs further exploration is how DNOs demonstrate that they have resolved real or perceived conflicts of interest. Flexibility providers must be fully confident that DNO decision making is objective and robust (meaning best practice is used, and all costs and benefits are properly assessed). DNOs must be able to demonstrate how their decision making is neutral in cases where networks are choosing between third party flexibility services and any solution provided from DNO assets. We believe Ofgem will need to give further direction to DNOs on conflict management – at least by providing clarity on minimum standards DNOs must meet in delivering when setting arrangements to remove or mitigate conflicts of interest. If DNOs cannot evidence how they will resolve real or perceived conflicts of interest by mid-2021 then Ofgem will need to regulate directly.

Common Evaluation Model – 2020 Product 1

In principle we welcome DNO plans to use a Common Evaluation Model (CEM) to decide between procuring flexibility services or reinforcing the network or using network-based technological solutions like Active Network Management (ANM) or voltage control. This will add transparency and help DNOs to demonstrate they are acting impartially. We do however have concerns that the initial CEM is not sufficiently ambitious and too narrow in its focus. Our main comments being:

- Baringa and the ENA have not demonstrated how the CEM should be used to compare Network ‘Technical Solutions’ such as ANM or voltage management with flexibility services and reinforcement. The populated spreadsheet example only looks at a physical reinforcement vs flexibility services. Where the CEM methodology paper does briefly reference flexible network solutions (in Table 4), this concentrates on the existing ANM use case for generation export. It does not explain how the wider costs associated with implementing and operating ANM should be treated. There is one sentence on future other technology and that does not add any explanation.
- By concentrating on the choice between reinforcement vs flexibility services Baringa has not considered how network-based technical solution should be valued, when these could have several hidden costs and wider societal implications.
- DNOs have been overly conservative with the model and resisted enabling the model to properly value the option value of procuring flexibility services. DNOs can procure flexibility services to delay reinforcement for a few years and then make a better decision when they have more information. Frontier produced a study and assessment tool for SSEN that does this – we question why learnings from this were not included in the Open Networks model.
- Where DNOs control the inputs to the CEM, they could potentially skew the outputs. This could arise from a traditional behavioural preference for network-based solutions, rather than being intentional. DNOs must be able to demonstrate that the end-to-end process is neutral. Increased data transparency will help with this.

Thought needs to be given to the longer-term governance of the CEM so that market participants and consumer groups can be confident that it is capturing all costs and benefits. We do not have a preferred solution at this stage – but the governance arrangements Ofgem propose for the current LTDS reform, using a cross-sector energy industry working group could be one option.

We have broader concerns about the current and planned expanded use of ANM and address these in our response to Q12. Similarly, there needs to be a broader policy discussion with stakeholders and Ofgem around the use of other network technological solutions to support local distribution system operation, especially where these could displace the use of flexibility services.

DNOs must not be allowed to provide balancing services to the ESO using flexibility from technical network solutions.

Procurement Processes – 2020 Product 2

Q2 – Would stakeholders see greater value in holding PQQ stages (1,2 in the associated presentation) at point A or point B in the timeline with rationale?

There are plusses and minuses to both approaches. We support a standardised approach across DNO areas. Removing differing approaches does make it easier for us to offer flexibility from more assets.

The answer to Q2 also depends on the product length and frequency of procurement. When DNOs can add shorter-term procurement that moves closer to real-time then both PQQ stages will need to take place before the tender or preferably auction.

For the current proposed cycle of 2 procurements per year – we do not have a strong preference.

It is more important to simplify and remove barriers from the Technical PQQ. For example, requirements for minute-by-minute metering could mean that it takes a couple of years for a site to achieve payback for participating in the provision of DNO services. If disproportionate requirements can be removed from the PQQs, it would facilitate the flow of assets through Stages 1-4 and enable greater participation. We recommend that Open Networks review the individual technical requirements, justify their and consider alternative solutions that could allow

Q3 – Do you agree with the alignment of timing for procurements in the proposed cycle of 2 procurements per year and if not, why?

The alignment of timings is acceptable, whilst DNOs are limiting themselves to two procurement rounds per year.

In line with Ofgem's position in the RIIO-ED2 Sector Specific Methodology Consultation we want to see DNO markets develop across timeframes – leading to a mix of longer-term and short-term procurement. This needs to include DNO flexibility markets moving closer to real time, with day-ahead and even within-day markets. We expect DNOs to build on the lessons learnt from the ESO's move away from long-term bilateral contracts to shorter-term procurement using auctions.

Several DNOs are involved in innovation trials testing the use of day-ahead and within-day markets and others have declared an intention to procure in these timeframes in their individual DSO strategy papers.

Shorter-term markets will become increasingly relevant for DNOs as the uptake of electric vehicles and electrified heat grows – both providing a source of short-term products and a reason why they are needed.

Active Power Services Parameters – 2020 Product 3

Q4 – Do you agree that implementation of these consistent parameters helps to remove barriers to entry?

We support standardisation of requirements across all DNO areas. Complexity from inconsistent requirements creates an administrative and economic barrier to entry. When Centrica Business Solutions is working with customers that have multiple sites across Great Britain, it makes it harder to promote the uptake of low-carbon flexible assets to customers when they are required to meet different DNO requirements to connect new assets or qualify them for flexibility services.

Q5 – Should any other parameters be considered and if so, why?

Not at this stage. The parameters should be reviewed on a regular basis to ensure that they are not creating barriers to entry as new business models emerge.

Commercial Arrangements – 2020 Product 4

We welcome the ENA's decision to produce a Version 1.1 of the contract with some immediate improvements that will reduce some of the barriers to market participants using this contract.

We reiterate the importance of having a robust consultation process for Version 2 in December. The ENA should make sure the ESO has alerted its market participants to the upcoming consultation, as some of them may not be aware of this change.

New DSO Services – 2020 Product 5

Q6 – At what point do you believe it is appropriate to standardise new products? For example, should we initiate standardisation early on limited experience, or allow more than 2-3 DNOs to develop and procure similar products before commercialising standardisation?

There are clear benefits to standardisation which generally makes it easier for flexibility providers to participate. We expect DNOs to be sharing their development plans for new products with each other through Open Networks at the earliest stage. We would prefer DNOs to work together to standardise new products from the start – unless there is a justified reason for trialling explicit differences. Market participants must be consulted during the design phase. By seeking early stakeholder input, DNOs could test different approaches on paper rather than in the real world.

Standardisation must not mean going with the least ambitious option just because it is the easiest to reach agreement on.

Q7 – What new DSO services do you believe are ready for standardisation now, if any, and why?

There is a shared ambition across several DNOs, market participants and Ofgem to introduce flexibility markets closer to real time. Several innovation projects have been conducted which prove that day-ahead and within-day procurement, with auctions, is possible. The standardisation process needs to begin for these products. The Open Networks Project should include a WS1A Product in its 2021 Workplan to develop a common approach for these shorter-term markets.

Market Facilitation – Non-DSO Services – 2020 Product 6

Q8 – What input can you provide to help us prioritise non-DSO Service development:

- **What do stakeholders want network operators to facilitate in the near term?**
- **How can network operators facilitate non-DSO services whilst ensuring system resilience?**
- **How do network operators create scalable interfaces that allow these markets to flourish?**

Shortages of firm network capacity limit Centrica's ability to bring forward new flexibility projects (for itself and for its customers.) We support efforts by the ENA to enable the trading of underutilised capacity. We have not had direct involvement in the innovation projects referenced in the Interim Report, but the ENA's approach to reviewing the learnings from these projects as they progress is broadly sensible. We encourage the ENA to support the REA proposal to trial the trading of unused capacity from landfill gas generation projects.

DNO implementation of the Energy Data Taskforce Recommendations and Energy Data Best Practice guidance will be key to enabling these new services.

Baselining Methodology – 2020 Product 7

Q9 – What challenges are flexibility providers currently facing in respect of baseline requirements?

Currently baseline requirements across ESO and DNO markets have been built on the characteristics of larger more traditional energy assets. This means that baselining can become a barrier to entry for newer sources of flexibility, including aggregation.

Baselines determined using historical data do not typically work well for aggregated assets. It would benefit both market participants and the networks to consider alternatives that allow service providers to submit baseline information close to real time. For example, historical data from the previous month or week does not provide accurate information on the baseline status of an electric vehicle providing response to a network.

The setting of an appropriate, yet proportionate baseline is important for maximising participation in flexibility services. Our recent experience with the new ESO Dynamic Containment product, is that a disproportionate baseline (1 hour ahead of time, rather than closer to delivery) will exclude many types of assets, especially aggregated DER and renewables. The only baseline fully compatible with an aggregator is a forward schedule.

Where aggregators are required to provide detailed information in advance on individual small assets this can cause issues where we are asked to share data that the customer

considers highly commercial or personal (GDPR). At a minimum we need to be able to demonstrate that personal and commercial information is protected when passed to the system operator.

Q10 – Open Networks Project will consider if differing DER types such as demand turn up, storage, generation etc. should be subject to different methodologies. Do you feel this would be a fair outcome for providers, or would a simple one-size fits all approach encourage more participation?

There will need to be different methodologies for the different types and sizes of DER (batteries, CHP, EV chargers etc.). There is no 'one-size-fits-all' solution in this case. A single approach – even if it were possible – would entrench the challenges market participants face today and block the participation of new sources of flexibility.

The most practical solution would be to develop approaches by asset class. There may need to be different approaches for domestic and non-domestic assets – although this should not block aggregation of assets across both these groups. However, methodologies must be consistent across DNOs and designed so that they do not confer advantages to any specific asset class.

Q11 – Are there any other key aspects Open Networks should consider when investigating potential methodologies?

The P7 Detailed Project Scope describes how Open Networks intends to assess current industry baselining work with a view to recommending a consistent approach. If the consultants just looking at existing methodologies and select the most common approach, this would risk embedding practices that already do not work for the newer business models. Open Networks must choose a methodology that is as future-proof as possible – meaning that it enables the participation of the emerging sources of distributed flexibility that are needed to help the UK achieve its decarbonisation goals.

There are some existing methodologies that could work. Centrica's Cornwall Local Energy Market project used a baselining approach that was well received by DNOs. This was based on the ISO New England Demand Resources baselining methodology We can provide further details on this to the consultants.

Interactions between Flexible Connections (ANM) and Flexibility Services – 2019 Product 5

Q12 – Please provide feedback on the proposed future activity for consideration and which of these activities should be prioritised in any future scheduled development work in the Open Networks Project?

We feel the paper published as part of this consultation underestimates the potential for ANM to act as a barrier for sites wanting to offer flexibility services because it focusses too much on the current situation where DNOs claim is limited conflict. This will change as most DNOs are rolling ANM across their whole licence areas and planning to manage demand connections.

If the UK is serious about growing local flexibility, then the use of ANM must be minimised. DNOs should be obliged to use commercial flexibility first¹. Governance arrangements should be established to ensure ANM is only used when technically necessary, requiring the DNO to prove such technical necessity as part of annual reporting on ANM use. DNOs must be barred from using ANM schemes to provide flexibility to the ESO or any other network operator.

We continue to have concerns about DNO plans to expand the use of ANM in their DSO strategy papers. We need development of a holistic view on how ANM should be used. Table 7 'Future Activity for Consideration' on page 20 of the paper contains eight potential actions. Developed in isolation, these could lead to a piecemeal approach that acts as a band aid rather than finding the right balance in the best interest of GB consumers.

Noting these concerns, we have the following comments on the individual future activities that are owned or the ENA:

- **Provision of more dynamic/frequent curtailment information** – we support users being provided with more frequent information; this should aim to be close to real-time. The introduction of dynamic (i.e. changeable) parameters for curtailment would need to be
- **Provision of curtailment information closer to real-time** – we support this, but although this could release more flexibility from assets on ANM connections, we do not want this to be an excuse for the unfettered expansion of ANM if flexibility service procurement can be used as an alternative.
- **Reviewing options to mitigate deterministic curtailment rules & improve DNO exposure to curtailment value** – We support reviewing curtailment rules and considering standardisation. Exposing DNOs to curtailment value – so that using ANM is not a free option would in theory be an improvement on the current situation, but careful consideration needs to be given to how this could interact with DNO flexibility procurement.
- **Reducing connection curtailment uncertainty and increase transparency for customers through the use of the Common Evaluation Model (CEM) tool** - Baringa and the ENA have not demonstrated how the CEM tool would be used to compare ANM with reinforcement of flexibility services. This is one of our main concerns with the CEM material presented as part of this consultation. It is not clear how the CEM could reduce curtailment uncertainty because the model is not designed for this purpose.
- **Investigate future overlaps in flexibility provision e.g. ability for flexibility services to replace/mitigate the need for flexible connection (ANM) curtailments.** We strongly support any work that could consider how flexibility services could be used by DNOs as the main alternative to reinforcement, with ANM as a last-resort insurance measure. This would be our preferred outcome. It could also be simpler than trying to fix the flaws of ANM.

Centrica's response to Ofgem's December 2019 consultation on DSO Key Enablers² contained recommendations for ANM governance that could complement the ENA proposed

¹ In line with Ofgem's RIIO-ED2 SSMC proposals where flexibility is capable of being economic and efficient over the long term compared to technological solutions – page 99 SSMC Overview document.

² Key enablers for DSO programme of work and the Long-Term Development Statement - <https://www.ofgem.gov.uk/publications-and-updates/key-enablers-dso-programme-work-and-long-term-development-statement>

future activity. We suggested a range of protections to ensure DNOs do not misuse or overuse ANM. There were:

- Ringfencing ANM costs and use.
- Limiting instances where ANM can be used
- Requiring the DNO to test the market for flexibility services first
- Limiting the length of time ANM can be used e.g. before reinforcement is carried out or requiring the DNO to re-test the market for competitive flexibility services.
- Compensating customers with ANM connections
- DNO publishing regular reports to Ofgem and network users on ANM usage

The ADE's 'red, amber, green' approach should also be considered as an option³.

Curtailment approaches

LIFO methodology allows the DNO to curtail the connection at will, without any fee and in a strictly applied sequence (last in first off). This is not only blocking competitive flexibility service solutions but also impairing the roll out of subsidy free renewables, whilst earlier subsidised renewable schemes have firm connections or see minimal curtailment under ANM. Inevitably, a policy of continued roll out of ANM for renewables will stifle the deeper penetration that the UK needs. The predicted curtailment risk could become overwhelming for any new entrants to the LIFO system. We need a system which will deliver equal opportunity for new connections whilst achieving a dynamically optimal network and meeting the UK's net zero target at minimal cost to consumers.

Q13 – Under the current arrangements do you receive sufficient information, in the right format, and at the right time to be able to manage your curtailment risk effectively?

We have avoided connecting flexible assets in locations that would require ANM because of the risks and complexity.

Q14 – Are there barriers preventing customers with assets with Flexible Connections (ANM) providing flexibility services to the ESO or DSO today?

Anything that increases risk and adds complexity makes it harder to persuade customers to participate in flexibility markets, or even connect low-carbon and flexible assets. Where a customer has an ANM scheme it naturally increases the risk associated with providing services to the ESO or DNO/DSO, especially if the service is subject to non-delivery penalties.

The costs associated with just installing the monitoring and control equipment associated with ANM can be prohibitive for some sites, leading some customers to decide not to go head with Low Carbon Technology (LCT) installations or reduce the size of the planned project.

³ The 'red, amber, green' approach would assess where tradable flexibility markets can replace ANM contracts in the short term (the 'amber' areas) and where this will take longer (the 'red' areas). A fixed, declining cap on curtailment for all generation on ANM contracts would be introduced, with usage time-limited and standardised, both in terms of costs and numbers of curtailments.

Q15 – How could DNOs better enable customers with Flexible Connections (ANM) to use Flexibility Services to mitigate the current and future curtailment?

ANM should be used infrequently as a last-resort tool, if flexibility services have been exhausted.

The extent to which customers can be curtailed must be clearly defined and explained to the customer when they sign-up for flexible connection. Customers must then be provided with accurate and timely information on the probability of curtailment whilst their capacity booking remains interruptible. This information should reflect the information available to the DNO i.e. it should be close to real-time.

We support Open Networks exploring how network users could trade capacity or otherwise come to commercial arrangements to firm-up other users' connections under Product 6 Non-DSO Services. Although this must not become not legitimise an unfettered expansion of ANM.

The outcome of Ofgem's Access SCR, including review of the distribution connection charging boundary (which we support), could lead to the industry operating two different regimes – legacy ED1 ANM contracts operating alongside the ED2 SCR framework. This only adds complexity for all parties. This is another reason why we believe ANM should only be used where all other options have been exhausted – to limit the volume of legacy agreements active in ED2.

DNO Flexibility Services Revenue Stacking – 2019 Product 5

Q16 – Please provide feedback on the identified barriers and proposed recommendations and which of these recommendations should be prioritised in any future scheduled development work in the Open Networks Project?

We believe that value stacking should be allowed for any other service if the provision is within the grid and the products constraints. To this goal, we identify several barriers which we list below.

First, we recommend the automatic correction of wholesale market imbalance positions as a result of providing DNO flexibility services, analogously to balancing mechanisms. These, if not corrected, will greatly limit participation in DNO services.

Secondly, we support moving DNO service procurement as close as possible to real time⁴. Without such change, participants (especially DSR) might be hesitant of providing flexibility too far in advance as these commitments might not be consistent with the future operation of their assets.

Thirdly, it is recommended to include DNO services into the Capacity Market's list of Relevant Balancing Services so that their revenue can be stacked. As we stated before, we believe that stacking should be possible with any service.

⁴ Consistent with our response to Q3 we recognise that in practice there will probably need to be a mix of longer-term and short-term procurement. This needs to include DNO flexibility markets moving closer to real time. We want to avoid DNOs tying up their flexibility procurement in long-term bilateral contracts that close the market to new entrants or existing sites that cannot commit to a multi-year pattern of delivery. We expect DNOs to build on ESO's Future of Balancing Services work.

Fourthly, a clear and consistent coordination between DNO and ESO services will be needed to support efficient value stacking among services offered by the two. Without it, it might be impossible to stack services even with a legal basis to do so.

Furthermore, we recommend the creation of a transparent mechanism by which a flexibility provider can validate with the DNO that grid constraints would not be violated if they were to place a bid in a non-DNO service. By doing so, the flexibility providers will be able to limit their exposure in case of curtailment.

Finally, but no less important, we believe that the only baseline fully compatible with an aggregator is a forward schedule and that other implementations based on historic measurements will greatly hinder the participation of aggregators in DNO flexibility services. Historic baselines are not compatible with the dynamic operation of assets under the control of an aggregator.

These recommendations are consistent with the lessons learned from the Cornwall LEM, which allowed DNO services to be fulfilled first when there was a conflict with the ESO.

Residential Flexibility

Q17 – Do you have any ideas on how we might better engage with and encourage participation of residential flexibility in flexibility service provision? Can you identify any barriers that might currently exist, along with potential solutions?

When standardising and introducing new products or processes, the default position must be to ensure that these are open to participation for flexibility service providers using an aggregated response from residential flexibility. Open Networks outputs – such as the first version of the Standard Flexibility contract – have tended to be designed around the capabilities of larger more-traditional Distributed Energy Resources (DER). We are pleased Open Networks is already making some changes in the standard contract and standard product parameters to enable the participation of smaller aggregated DER assets. This approach must continue.

Regarding the collection of data, we believe that sub metering should be allowed and that the minimum requirements associated with them are commercially reasonable. Furthermore, data collection should be procured in a way that makes it easy to comply with GDPR.

For aggregated assets, it will be important to guarantee that the provision of flexibility services (not uniquely DNO's) results in a grid secure dispatch. Aggregators have access to real-time data that which, in coordination with the DNO, can be properly utilized to achieve desirable outcomes for all participants.

Stakeholder Engagement

Q18 – Do you have any ideas on how we might better engage and encourage feedback and input from stakeholders (including non-traditional energy market participants)?

In relation to the planned consultation on Version 2 of the standard contract, the ENA needs to ensure that more traditional energy market participants who do not currently engage with Open Networks are aware this will impact their participation in the ESO markets.

I hope you find our response useful. Please contact me if you have any questions on helen.stack@centrica.com or 07979 567785.

Yours sincerely

Helen Stack
Centrica Regulatory Affairs, UK & Ireland