

Open Networks
Project
March Advisory Group
Response

4 March 2021

Introduction

The first Open Networks Advisory Group meeting of 2021 took place on 4 March 2021. Due to the ongoing COVID-19 situation the meeting was held digitally. The project presented a number of updates on general progress, comms activity, WS2 P1 ECR, WS1A P4 Commercial Arrangements, WS2 P2 QM Implementation Plan, and the Gas Goes Green project. There were also breakout sessions on WS1A P1 user forum & open governance, ANM Products & Stakeholder engagement and WS1B P6 Operational visibility of DER.

Product updates	
WS2 P2: QM Implementation Plan	
Feedback	Response
<p>Why has it taken five years to put Queue Management in place, for what seems to be a fairly simple concept?</p> <p>Matthew Cullen – E.ON Energy</p>	<ul style="list-style-type: none"> The concept of Queue Management for distribution has been in place since 2016 but implementation of the milestones has varied across companies. Open Networks has built on this work over the last few years and has consulted with industry and stakeholders to ensure that the milestones and processes work for them. This process has taken time but has helped us agree on a set of milestones and processes that can be consistently applied across transmission and distribution.

Product updates	
WS2 P1: Embedded Capacity Register	
Feedback	Response
<p>With regard to data privacy, how will you cope with Section 105 of the <u>Utilities Act 2000</u> if you go below 1MW?</p> <p>Mike Kay – P2 Analysis</p>	<ul style="list-style-type: none"> • We've looked at all DNOs individually and ENA collectively have taken advice on GDPR and Section 105 and we believe now that we won't fall foul of Section 105. • We will make sure we follow all the right steps and publish the data we're allowed to, along with sharing the relevant clauses.
<p>Is there a plan for the Embedded Capacity Register to go to a lower scale e.g., a smaller project?</p> <p>Merlin Hyman – Cornwall Insight</p>	<ul style="list-style-type: none"> • We are exploring going down to a lower threshold of 50KW. This threshold could have GDPR implications. • We are working with the DNOs to understand the increase in the amount of data as we move to lower thresholds. It is expected to be a significant increase and we will need to consider more centralised, data base led solutions. We are exploring this further as part of the scope for this year.

<p>Is there a single source of the Embedded Capacity Register on the ENA website?</p> <p>Matthew Cullen – E.ON Energy</p>	<ul style="list-style-type: none">• ENA site hosts all links to individual DNOs sites. Or you can visit the individual DNO sites.• There is no centralised solution in place now but this will be considered as part of the scope for this year.
<p>What are your thoughts on capturing Loss Of Mains (LOM) protection details within the Embedded Capacity Register, given the problems with Vector Shift and oversensitive RoCoF?</p> <p>Peter Bingham – Ofgem</p>	<ul style="list-style-type: none">• Most DNO's have their own spreadsheets and have completed the vector move to RoCoF, or have changed settings.• The product team will consider if LOM or protection details can be captured into ECR register given this is becoming the single source of truth for generation.

Product updates	
WS1A P4: Commercial Arrangements	
Feedback	Response
<p>Why was V1.2 of the common contract only shared with a small group of flexibility providers after it was developed?</p> <p>Matthew Cullen – E.ON Energy</p>	<ul style="list-style-type: none"> • It was stated within the work package last year that we would go to ADE to give specific feedback on some of the points around aggregators. • It would have been preferable for us to go out on a wider consultation for V1.2 but due to delays and the accelerated fashion in developing V1.2 the delays would have nullified its use when we're looking to release V.2 later this year. • For V.2 we will have a public consultation. As many flexibility providers as possible will be invited to give feedback.
<p>Can IDNO's be provided with relevant documents to review in advance. UK Power Distribution are happy to field this on behalf of INA.</p> <p>Frank Welsh – UK Power Distribution on behalf of INA</p>	<ul style="list-style-type: none"> • V1.2 is now available on the website and DNO's will be using this for tenders expected later this year. DNOs will be updating contracts over the course of the next couple of months. • Outside of consultation, the P4 team are meeting regularly to generate V.2 of the contract. Any urgent red flags or areas requiring updating these will be incorporated in V.2.
<p>Flexibility providers should be involved within the work group or brought in on a bi-monthly/quarterly basis.</p> <p>Matthew Cullen – E.ON Energy</p>	<ul style="list-style-type: none"> • We will take this feedback on board and see how we can work it up in our processes. We can improve how we get feedback.

<p>It would be useful if we are able to share content widely with Members in order to be able to provide the most comprehensive feedback</p> <p>Caroline Sejer Damgaard – ADE (Flex Assure)</p> <p>It would have also been reasonable for Energy UK to allow wider participants to comment.</p> <p>Helen Stack – Centrica</p> <p>The iDNO community would like to work more closely and be more engaged with products and ON work streams.</p> <p>Frank Welsh – UK Power Distribution on behalf of INA</p>	<ul style="list-style-type: none"> • For context, if we extended the timescales much it would be very close to V.2 launch, where we're looking to consolidate with ESO T&Cs, so we were very keen to get V1.2 out to ensure it could be used. We are planning a public consultation for V2 to give the wider industry the opportunity to provide feedback. • The team will outreach to ADE offline to see how we can get more input in a streamlined way and to ensure INA is engaged with on upcoming products and workstream activity.
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Breakout Session 1 - WS1A P1 user forum & open governance	
Feedback	Response
<p>Can you explain the rationale behind the limit of 2 per group as workload will probably limit participation anyway?</p> <p>Helen Stack – Centrica</p>	<ul style="list-style-type: none"> • Open Networks has c.15 stakeholder groups so allowing 2 per group and some additional representatives allows a wide range of participants whilst keeping the group a manageable size.
<p>Can flexibility providers sit on the user group.</p> <p>Matthew Cullen – E.ON Energy</p>	<ul style="list-style-type: none"> • Yes, Flexibility Providers are specifically identified as a stakeholder group.

<p>Is a 40 person user group a workable size?</p> <p>Matthew Cullen – E.ON Energy</p>	<ul style="list-style-type: none"> • We are trying to make the group accessible to as many people as possible whilst maintaining a manageable group size. • Whilst we are trying to keep the group as accessible as possible we need to ensure it is a workable size.
<p>The Steering Group has Ofgem and BEIS representation but doesn't include wider stakeholders, why is this?</p> <p>Helen Stack – Centrica</p>	<ul style="list-style-type: none"> • Ofgem and BEIS are represented as key industry policy makers and to ensure alignment of Open Networks with policy. The approach to stakeholder input has been through the Advisory Group to date and we're trying to be inclusive in our first steps towards Open Governance with the process and User Group proposals.
<p>Why are all DNOs included in the User Group? I am concerned this gives DNOs overall control of the group.</p> <p>Eddie Proffitt – Major Energy Users Council (MEUC)</p>	<ul style="list-style-type: none"> • All DNOs use the tool and so are likely to have the most experience using the tool so can provide feedback for further iteration. We don't believe this gives overall control as there are 6 DNOs in a wider User Group of up to 40, but will welcome input to the process and ToRs.
<p>Are there plans for non-network stakeholders to be trained to use the CEM?</p> <p>Matthew Cullen – E.ON Energy</p>	<ul style="list-style-type: none"> • There is a guide on how to use the CEM on the website which was created by Baringa. There are lots of materials on the methodology associated, going through worked examples of using the tool e.g. evaluating energy efficiency, or evaluating ANM. There is also a workshop planned on the use of the CEM Tool in mid-April.

<p>The approval process is not as balanced as other external examples - e.g. code change, with boards that contain a mix of stakeholders. Or ADE's Flex Assure scheme where the managing committee has a balanced mix of providers, consumers and policymakers/academics.</p> <p>Helen Stack – Centrica</p>	<ul style="list-style-type: none"> We are looking at how we can design the user group governance to provide confidence and transparency and including a wide range of users. The proposals will empower the group with the authority to undertake analysis and make recommendations with compelling evidence bases on changes into Open Networks decision-making. We do not propose to establish a new decision-making body with different constitution whilst we have the Open Networks Steering Group.
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Breakout Session 2 - ANM Products & Stakeholder engagement	
Feedback	Response
<p>Are DNOs still expanding the use of Active Network Management (ANM) schemes with the knowledge that the SCR decision may change their use?</p> <p>Helen Stack – Centrica</p>	<ul style="list-style-type: none"> Growth in the use of Flexible Connections enabled through ANM schemes is being driven by the need to accommodate the growth of connection requests affordably and quickly. The regulatory approach to managing connections is very different across Transmission and Distribution. In simple terms, the ESO (the Transmission system operator) operates a “connect and manage” approach to connect assets quickly; in addition, transmission assets only face a shallow connection charge. The latter means the connecting customer only pays for their sole use assets up to the outer periphery of the transmission network; any additional deeper reinforcement costs are recovered across all the users. Once the assets are connected,

	<p>the ESO then <u>manages</u> any constraints they create and recovers its costs through BSUoS.</p> <ul style="list-style-type: none">• In contrast the DNOs use Flexible Connections, enabled through ANM technology. The ANM schemes allow assets to connect faster, ahead of deep reinforcements, by applying <u>automated controls</u> to protect the distribution system in the event of an overload; and as a result the connection is significantly lower cost. Without ANM the connecting customer would have to pay for a standard connection, including all the network reinforcement costs deep into the network, and wait for the works to be completed.• These differences in approaches and charging are a direct consequence of the regulatory arrangements at distribution level where new connections are exposed to “deep” connection charges and there is no equivalent to BSUoS for DNOs to recover system management costs.• The ANM technology provides a non-standard connection option for customers. The ANM technology when used in this way (Flexible Connections) is an automated, fairly binary control system that responds to network issues or triggers by curtailing the generation from affected assets. Unlike the ESO management system the DNOs do not have any discretion in real-time as the ANM scheme responds automatically.• If we want to grow connections rapidly, and they need to be affordable, then without a decision on the SCR the only viable option currently is to use an ANM
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	<p>scheme. Growth in Flexible Connections (enabled with ANM schemes) is being driven by stakeholder requests for connections.</p> <ul style="list-style-type: none"> • We welcome suggestions of alternative ideas and are holding a Focus Workshop to facilitate such discussions with stakeholders. However, the confines of the current regulatory access and charging arrangements is a constraining factor and so the ON focus currently is to mitigate the concerns stakeholders have raised with these types of connections
<p>A potential alternative could be connection customers paying for the required flexibility tender(s) run by the DNO on the connecting customer’s behalf. This results in the cost being discovered as opposed to being set by DNOs through a flexible connection charge, and so could be cheaper.</p> <p>DNOs already run flexibility tenders for demand growth, so the cost of adding flexibility tenders for generations may only be a small increase.</p> <p>Matthew Cullen – E.ON Energy</p>	<ul style="list-style-type: none"> • This is an option we could explore under this product (P9 apportionment of curtailment risk). • Whilst DNOs are conducting trials in this area a number of regulatory challenges have been identified. E.g. SLC 12 sets out strict content requirements and timescales [28-65d] for DNO connection offers. Issues with the provision of connection offers, that also set out the necessary detail and conditions associated with the DNO provision of a “flexibility tender in lieu of curtailment” - and meet the conditions set out in the legislated timescales, have been identified. • This product has links to WS1A P6 Non-DSO Services which is simulating and trialling the trading / sharing of capacity.
<p>We believe these products will be really useful, but we still see DNO messaging suggesting an aggressive roll out of ANM. We</p>	<ul style="list-style-type: none"> • ANM as a technology is used for many different purposes by the DNOs to control the networks and is enabling the

need regulatory clarity on both sides on how and when we might be moving away from ANM and towards a market-based approach.

Helen Stack – Centrica

network to be operated more dynamically. Facilitating Flexible Connections is just one of many aspects it is used for. We need to differentiate between ANM as a technology and ANM being used to facilitate Flexible Connections

- With regards to the growth in Flexible Connections specifically: if we want to increase affordable connections rapidly ahead of an Ofgem decision on the Access and Forward Looking Charges SCR then the only viable option currently is a non-standard Flexible Connection enabled through an ANM scheme.
- In practice, growth in Flexible Connections is being driven by stakeholder requests for faster, affordable access to the distribution network quickly.
- We agree that regulatory clarity is required on the Access and Forward Looking Charges SCR. In the meantime, we are trying to find ways of mitigating the real concerns raised by stakeholders to limit the impacts of Flexible Connections.
- For example, WS1A P6 is looking at non-DSO services – and how connection capacity might be shared or traded.
- WS1A P3 is looking at the principles to apply in future reviews of Legacy Flexible Connection (ANM enabled) Contracts. This is particularly important when considering the outcome of the SCR as this will facilitate exit strategies from this type of non-standard contract

	in the event the SCR decision results in material changes to the regulatory framework for connections and charges.
<p>Is a decision on the SCR expected soon? Is there scope to change the WS1A ANM products based on the decision?</p> <p>Matthew Cullen – E.ON Energy</p>	<ul style="list-style-type: none"> • The timing of a decision is down to Ofgem. We understand they will provide their position during 2021 • If the decision is to move to a shallow connection boundary then much of the need for Flexible Connections (enabled with ANM) goes away and ENA will review the WS1A ANM products.

Volunteers were asked for a users group across all three ANM products. ENA are looking for active participation and not simply observers.

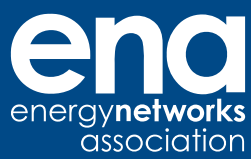
Matthew Cullen volunteered.

Please sent back the questionnaire. If you are interested in joining the users group please email opennetworks@energynetworks.org

Breakout Session 3 - WS1B P6 Operational visibility of DER – Early input on use cases	
Feedback	Response
<p>Would it be possible to include generation trips in the DER operation parameters, and potentially protection operation?</p> <p>Mike Kay - P2 Analysis</p>	<ul style="list-style-type: none"> • We will consider this proposal and wish to highlight that protection data is static and not real time.

<p>Who is paying for the monitoring and communications equipment connection customers require?</p> <p>Helen Stack – Centrica</p>	<ul style="list-style-type: none"> • DNOs historically weren't connecting large numbers of DERs. We would have to get back to you on who pays for this cost. The cost could be provided by Ofgem allowance to DNO/DSO as part of ED2 for network upgrades and visibility required to enhance network resilience.
<p>Parameters like ramp rate for certain technologies like CHP will vary. How will you capture these?</p> <p>Matthew Cullen – E.ON Energy</p>	<ul style="list-style-type: none"> • The technology of the CHP has a maximum ramp rate. Based on this we can optimise the operation of ANM systems, and exchange this information with the ESO so they can use it for frequency balance to know how long it'd take a CHP to fill up the capacity available by the ANM. At this stage the maximum ramp rate is sufficient.
<p>We are concerned that many DERs may connection and then gradually sign up for new ancillary services. Would the DNOs be able to capture and track all of these?</p> <p>Eddie Proffitt – Major Energy Users Council (MEUC)</p>	<ul style="list-style-type: none"> • This is possible and so we are conducting a Cost-Benefit Analysis (CBA). Broken down into categories, the CBA allows us to identify the costs for each of the DERs, and focus on the most appropriate options. • At the moment we focus on the DER telling us what services they are providing, and providing real time information on the MV/MVars at the point of connection. This is the basic information we'd need to exchange with the ESO for system resilience. • Information from DERs on the types of services they supply is sufficient at this stage. We are not currently looking to build a platform allowing DERs to provide real time information on services as this would be too detailed at this stage.

<p>Are your draft requirements within the scope of existing DNOs' Supervisory Control and Data Acquisition (SCaDA) systems?</p> <p>Mike Kay - P2 Analysis</p>	<ul style="list-style-type: none"> The SCaDA system relies on bandwidth which we can buy more of, increasing the rate of data capture. The DMF has limitations on the volume of data it can process, and so we have to apply dead-banding to manage data traffic.
<p>There have been cases where the DER has been asked to install monitoring equipment to connect. If the cost of the equipment requested by the DNO makes the DER project no longer viable. This would prevent low-carbon generation from being connected.</p> <p>Helen Stack – Centrica</p>	<ul style="list-style-type: none"> The point of connection is being monitored by DNOs. DERs have been asked to install monitoring equipment as they may need to limit their output at certain times. Having their own measurement equipment and controls allows them to respond to signals from the DNO. We have an obligation to provide the lowest cost connection but need to ensure it's of high enough standard for operation of the system. We don't want to enforce equipment whose costs makes connection inviable
<p>To what extent has the work sought to engage with the DisRestart project to leverage the work that is underway in terms of information sharing and approach for third party control?</p> <p>Peter Couch – Joint Radio Company</p>	<ul style="list-style-type: none"> We are open to sharing data as part of ED2 so better informed decisions can be made by DERs.
<p>How can DSOs dynamically operate future distribution systems securely and maximise capacity / access without real-time visibility of what connected generation is doing?</p> <p>Peter Bingham - Ofgem</p>	<ul style="list-style-type: none"> We have DERs and ANM systems installed on the networks. Once we're in a DSO world then the DERs will need to be managed against constrained locations and be offered new revenue stream for where they can provide flexibility. Without real time monitoring this would be very difficult to optimise.



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