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Dear Francis,

Electricity North West response to Ofgem Flexibility Market Asset Registration consultation

We are responding to the consultation on Flexibility Market Asset Registration, the aims of which we are supportive of. Flexibility is a vital component of distribution system operation and will be vital to secure the net zero electricity system of the future.

Maintaining the accuracy of the register, ensuring it is secure and confidential, and that it has all the necessary functionality will be critical to its success. It is important that there is coordination in all of the various digitalisation projects that are currently in flight to ensure that there is no duplication between them, and that opportunities for synergies and shared benefits can be identified.

Through the extensive engagement that has taken place through Open Networks and the ENA, we were very clear on the intentions of this initiative, in that the scope of the consultation covers those asset owners who are willing participants in flexibility markets. The consultation does not state this clearly, so we have responded to cover the eventuality that all owners of assets that may be eligible to participate in flexibility markets might be added to this register, regardless of their intention to participate or not.

Should you have any queries or wish to discuss any of our points further then do not hesitate to contact us.

Yours sincerely

Tom Selby
Regulation Manager



Annex 1: responses to consultation questions

Q1. Do you agree that policy intervention is needed to deliver common Flexibility Market Asset Registration?

Yes, we do agree that policy intervention is needed to deliver common Flexibility Market Asset Registration. We support the voluntary registration assets, rather than it being compulsory for all asset owners to register.

To achieve the goals outlined in the forward section of the consultation, flexibility needs to be understood across a wide range of assets of different sizes and capabilities. The first step to being able to enact flexibility is to understand what assets can deliver that flexibility and although we are starting to see the wider industry moving towards interoperability of asset data collection and sharing, we believe that the pace that this change is occurring is not fast enough, and currently is being led by separate uncoordinated programs.

In addition, it is not clear on where responsibility lies for asset registration. This responsibility sits most straightforwardly with the installer or the customer, rather than the DNO or others.

Increasing asset registration, sharing data on flexibility across the Great Britain and making the customer journey as easy as possible is required to achieve the ambitious flexibility goals set out, and whilst some of this may come from self-organisation and good intentions, the nature of the competitive market means that policy intervention is needed to achieve the required outcome amongst willing potential or active flexibility participants.

Q2. Do you agree that for other FDI outcomes policy intervention is not needed at this stage? Are there any risks to consider with this approach to FDI delivery?

At this stage we do not have any further suggestions for the widening of the scope of policy intervention. We have instead identified some issues that may occur over time for consideration.

It is clear from our 2023/24 Flexible services platform tender, as well as other DNOs tenders that there are several existing flexible services platform vendors who can deliver a range of the Flexible services with co-ordinated end to end processes. It is also clear that market competition will drive improvements in flexibility of these services over time. However, the approach of several different platform vendors does have several risks, including:

- There is a risk of a dominant platform emerging. This could lead to the dominant platform pushing other vendors out of the market ultimately resulting in lower market competition in the long run. Although this risk is evident, the recent tenders have shown a spread of different vendors who have been awarded contracts so currently we view this as a low risk.
- From our experience of tendering for platform services we found there was a high variability in what different vendors were offering. This risk will be mitigated by continued work by the ENA Open Network Project, and a benefit of Elexon's Market Facilitator role as well as development of the asset register will be to further standardise and align upon how DNOs and the ESO operate their markets. Currently we view this as a low risk.
- It's not clear if policy intervention will be required as there are many factors which include the required pace of change and the nature of technology innovation being driven by a fast changing and emerging market. Our view currently is that focusing on policy intervention for asset registration and co-ordinated digital infrastructure and standards is the right focus but it is possible that other policy intervention may be necessary. Elexon's Market Facilitator role is important in developing flexibility market arrangements and infrastructure.

Q3. Are there any other policy alignments or industry developments, in the UK or internationally, which should be considered as part of ongoing FDI policy development?

The key industry developments to ensure that Ofgem are aware of are:

- Progression on the Open Networks Project. This project is delivering network standardisation. Ofgem are part of the steering group for the project, and as such are kept abreast of developments from this project.
- Other vendors such as electron who have begun projects to allow for the interoperability of asset data between platforms, using an open ecosystem approach^{1 2}

There is a danger of duplication of effort or missing opportunities if the various industry digitalisation projects that are currently being developed are not done so in a coordinated and joined up way. For example, it is not clear from this consultation how the development of the asset registration solution may link with the Data Sharing Infrastructure governance consultation³, or the Consumer Consent solution⁴ consultation. These may have overlapping objectives, or there may be the opportunity for efficiencies to be achieved by combining some of their capabilities, such as the asset register also recording asset owners' consent (or not) to participate in certain markets, or for how they permit their data to be used. The design authorities of each individual project need to develop their systems in a coordinated way which is mindful of the systems being developed under different initiatives.

A possible area where efficiency could be found is combining some of the requirements of flexibility market asset registration with the DCUSA embedded capacity register. DNOs already collect data down to 50kW on embedded assets,³ and it might be possible that this could be developed further with the support of the Market Facilitator, and synergies between the projects might be identified with a new combined register taking its place. The ENA's Connect Direct project may also be another opportunity to more easily register the details of new projects.

Sharing the benefits of a joint cyber security solution to protect the integrity of these solutions is another reason to coordinate their development.

Section 3

Q4. Do you agree with the scope proposed for markets, assets, and data? Should anything else be considered?

We agree that this process should aim to target the assets which have the highest perceived barriers to entry which are the smaller scale assets <1MW, which tend to be high in volumes and low in capacity.

We agree on the focus on assets least likely to be registered, but that in aggregate could provide a significant amount of flexibility, namely your focus on small-scale domestic and small business assets.

¹ <https://electron.net/electron-landing/unlocking-flexibility-at-scale-open-ecosystem-approach/>

² <https://electron.net/arup-electron-and-energy-systems-catapult-partner-to-conduct-flexibility-markets-unlocked-study/>

³ <https://www.dcusa.co.uk/change/revision-to-embedded-capacity-register-ecr-to-lower-threshold-for-entries-from-1mw-to-50kw/>

We also agree on your approach to focusing upon static data rather than variable types of data. We would expect that the common asset registration data input template created by the ENA Open Networks Project would form the initial basis for the data template.

Within the scope Ofgem mentions data quality (section 3.20) and we agree that there should be a focus on trusted external data sources, however it is important to define where the single “source of truth” will be and what will happen when updates are made. This is also mentioned in the technical specification, but not detailed.

For example, suppose a customer registers a device with their supplier, and the asset information is input into a central system. What would happen if the customer then decommissioned or changed that asset, after the initial registration. In this case it is likely that they would notify their supplier, so in this case it may be that the supplier would be a more likely single source of truth for the asset data as there would be a higher likelihood of this data being kept up to date. As per section 3.20 this picture is complicated, and it may be that different asset types are populated and updated from different external sources, which is an approach we agree with. As mentioned in our answer to Q5 below, version control of any register is complex and of paramount importance to ensure that data quality remains high.

There are significant questions to answer on how far reaching the solution will be, and the impact that this will have on the resources required to deliver it. It is not clear from the consultation if the requirement to register assets will be made obligatory for the owners, or if the assets will be registered themselves automatically upon commissioning, or if the threshold for inclusion in the database is an explicit expression of interest in participating in flexibility markets from the asset owner.

Third party installers or suppliers might be well-placed to register assets on behalf of their owners, as they will have the knowledge and awareness to do so, as well as the opportunity to set up their systems to register assets efficiently and correctly. If the onus is on the asset owner to register their assets, there is a greater chance that assets either will not be registered, or will be partially or incorrectly registered compared to a more experienced agent doing so on behalf of the owner. The downside of third parties registering assets on behalf of owners is that there will be a much greater volume of assets registered, many of which may not ever be used for flexibility markets, but will significantly swell the size of the database. The ENA Connect Direct project may be a useful source of information.

The ability to register assets that have not yet been built needs to be considered. There are cases where proposed, but not yet built assets are bid into flexibility markets. Once those assets have obtained a contract, then they progress to development and construction. It would be duplication to have two registers, one with operational assets and another for assets in development, but their status as not yet built is significant and needs to be accommodated.

Q5. Do you agree with the functional outcomes? Should anything else be considered?

At a high level we agree with the functional outcomes, with the following comments:

- Data may be stored as a single source of truth, but to remain a source of truth, there will need to be a synchronisation of data with source systems. For example, where data is updated in a downstream system (e.g. supplier), that change should be reflected in the single master data record for it to remain a reliable source of truth.
- Any “common backend API” will require careful consideration on how it is secured, both for general good security practice, but also to avoid updates that degrade the quality of the information stored. For example, can a customer update their own asset information directly in the system, or should this only be allowed from a connected data source? The access to

make modifications from asset owners, database owners or flexibility procurers needs to be coordinated. Good practice would recommend that there are validation processes in place when data is being entered, and there is a feedback loop and/or audit trail for when corrections or amendments are made. A process where users are asked periodically to check and reconfirm their details are correct would help to maintain the accuracy of the register.

- DNOs would find the ability to record and store the specific geographical network connectivity of each asset within the register useful. This information is often added in with a manual process after an asset bids into a flexibility market. It would be very helpful if this information could be entered once and stored. The security sensitivity of this data may mean that it might not be appropriate to be accessed by all users of the register.
- We believe that synchronisation is likely to be required to avoid the single master data record becoming inaccurate.
- More thought will be needed to ensure that the right collection points have been identified. The customer / user journey is key to identifying the correct collection points, and the key questions should include, “where do we have an opportunity to discover the existence of a flexible asset?” For example, a customer may register an asset with their supplier, which may be a suitable point to perform the asset registration and linkage. Or, for other asset types these may be discovered by a DNO and could be registered automatically via system integration.
- The database needs to be designed in a way that it can be adapted in different ways to ensure it is kept up to date and accurate. Consideration needs to be given on how to manage changes in ownership or status and/or location of assets, and the challenges this will bring to ensuring the database can be kept up to date and accurate. Different assets will have different triggers for requiring their details to be reviewed or updated, for example solar PV, heat pumps and batteries at small domestic and commercial level are likely to be fixed to the ownership of the property they are attached to, whereas EV ownership may not be geographically static and will instead be linked to the status and/or location of the asset owner. Any updates will also need to be pushed out to the flexibility market providers to ensure that the correct details are held by all systems simultaneously, preventing compatibility issues where different systems have conflicting records. There also needs to be an agreement on where the master records are held, and the restrictions on where they can be amended or updated.
- Access to the data needs careful consideration. For example, if an asset owner has elected not to participate in a particular market, then should the market operator have limited access to that provider’s data?
- Ability to accommodate different aggregators operating from the same site: A single household may have multiple DERs associated with it registered to different aggregators to control. They may also choose to operate some or all of these assets themselves to provide a combined household response. In this scenario we assume that every asset has its own unique ID within the asset register, but the household may also have a whole house aggregated demand entry within the register. To provide an example of this: We have seen that within DNO markets that the household EV charging may be controlled by FSP 1 for DNO service 1, the householders heat pump may be controlled by FSP 2 for DNO service 2, and the whole houses demand including smart and dumb loads may choose to participate in the ESOs DFS market.

Q6. Do you agree with the design principles? Should anything else be considered?

We are strongly in support of greater coordination between the various different digitalisation and data sharing projects that are currently underway so that duplication is avoided, and that the benefits and synergies can be maximised. There are several projects underway on data sharing or digital infrastructure⁴, which might be at risk of being developed in isolation when there might be significant benefits from coordination between them. There are opportunities in the development of data sharing infrastructure, the consumer consent solution⁵ and any flexibility market asset registration solution, but at present it is not clear how these fit together, or if there any be scope overlap between them. In addition, existing solutions such as the DCUSA Embedded Capacity Register may be used by the Market Facilitator as a starting point to significantly reduce the amount of time to collect data and develop the infrastructure required to build an asset registration database.

Section 4

Q7. Do you agree with the enablers and design activities needed and for the Market Facilitator to coordinate Working Groups for them? If not, what other activities and governance arrangements should be considered?

We agree with the enablers and design activities needed and for the Market Facilitator to coordinate Working Groups for them; however, we would also support that this work should not wait until the Market Facilitator is fully established to begin. We would be keen to see Elexon beginning to establish these working groups within early 2025 in order to make progress towards commonality and standardisation. If Elexon are not in a position to begin this work, then we would recommend that the ENA take a lead on the work until such time it can be handed over to Elexon.

Q8. What are the advantages and disadvantages of the proposed delivery body options for the Flexibility Market Asset Registration digital infrastructure? Are there any additional options that should be considered? Do you agree with the justification for discounting approaches?

We would support that the proposed delivery body be the market facilitator. We agree that the consultation document (table 3) summarises the key advantages and disadvantages. We view that the market facilitator should act as a neutral party and respond to stakeholder feedback with regards to what data needs to be stored. Although the market facilitator may not be a subject matter expert, the DNOs, ESO, and external stakeholders can help to guide the data which needs to be stored. The Market facilitator option additionally provides a solution which would reach across the whole UK market, compared to the DNO solution which would be geographically limited to licence regions.

Holding all of the core asset data the market facilitator can see an unbiased view of regional variances within the flexibility markets. ENWL in partnership with NPg in 2023 carried out a research project to highlight these regional variances and highlighted some possible additional mitigations that may need to be put in place to address regional variance⁵. We anticipate that the market facilitator will have the required influence and powers to address some of these regional variances.

If the Market facilitator option was not selected, then we would next prioritise the DNOs becoming the delivery body for each licence area. DNOs already have the relationships with the end customers connected to the distribution networks. DNOs are also most likely to need to access the distribution assets involved within markets initially targeted by this proposal <1MW. This could potentially be beneficially coordinated through Electralink⁶, who already coordinate the sharing of lots of data on a daily basis via a consumer funded infrastructure between network companies and market

⁴ <https://www.ofgem.gov.uk/consultation/governance-data-sharing-infrastructure>

⁵ <https://www.ofgem.gov.uk/consultation/consumer-consent-solution-consultation>

⁶ <https://www.electralink.co.uk/>

participants (although their operation of the Flexible Power system needs to be considered to avoid any conflict of interest).

Q9. Do you agree with the timelines proposed? Should anything else be considered?

Although we understand that the work would not begin until late 2025 due to the establishment of the Market Facilitator and other Data Sharing Infrastructure developments, we believe that there is a risk that this will delay the standardisation of asset registration. As highlighted within this consultation, the asset registration for small scale DER assets is already seen as a barrier to entry for many flexible service providers. The market is still relatively immature, but we are starting to see significant increases in asset volumes across the UK. If we want to ensure that by the end of ED2 there is a productive landscape of flexibility provided from distribution connected assets we need to work to reduce barriers to entry as soon as possible. It has been seen from other work programmes such as: The Smart Meter roll out, Open Network Project, Energy Data Task Force, Data and Digitalisation working group; that trying to form standardisation when a high number of market entities are involved can take a significant period of time to complete. Given the scale of the work required to achieve all of the Functional Outcomes and Design principles identified within Tables 1 and 2; we believe that the work should start as soon as possible. We would favour a solution where Elexon look to accelerate this work program to start within early 2025, this may require support from the ENA where Elexon have yet to scale up the required resourcing to program manage this workflow.

Section 5

Q10. What existing or new policy levers could be used to improve asset visibility?

The Electricity Safety, Quality and Continuity Regulations – Regulations 22 and 25 state the requirement for installers of equipment to gain permission from the DNO. These regulations also provide the outline framework for DNOs to approve or refuse the installation of equipment.

All connectees to the distribution network are subject to the National Terms of Connection. Under these terms connectees must comply with the distribution code. In line with the Distribution Code, connections shall be designed to ensure compliance with engineering recommendations including:

- Engineering Recommendation P28 to limit flicker and voltage fluctuations
- Engineering Recommendation G5/4-1 to limit harmonic voltage distortion.
- Engineering Recommendation G98 & G99 for the connection of generating equipment.

These engineering recommendations all lay out requirements within that require installers and owners of electrical equipment to assess their equipment in line with the relevant standards and then make a formal application or notification of the equipment to the DNO where this falls outside of deemed thresholds. A common requirement that flows through all three of the listed EREC documents listed above is the application for connection for electrical equipment which exceeds 16A per phase; this is due to harmonic and voltage distortion regulations.

Historically any generators installed wishing to collect the feed in tariff had to be installed by an MCS accredited installer. As part of the MCS accreditation installers needed to prove that they had registered the installation with the DNO. Many retailers have also adopted the approach in recent years that in order to be eligible to be paid for embedded generation that the system needed to be MCS accredited.

The IET Code of Practice for Electric Vehicle Charging Equipment Installation provides guidance to installers of Electric vehicles. This guidance includes the requirements to notify the DNO of connections of EV charge points.

The relevant UK standard is BS 7671:2018, Requirements for electrical installations (The IET Wiring Regulations 18th Edition). BS 7671 covers requirements for design, installation, inspection, testing, verification and certification of electrical installations. Part of the accreditation should be that they are aware of the need to notify the DNO of relevant asset connections, as per the DCode, over the defined capacity of 16A: including Generators, Heat Pumps, and Electric Vehicle Charge Points.

As part of OZEV EV ChargePoint Grants or Workplace charging scheme the installers must be accredited and authorised by OZEV. As part of this authorisation installers should be aware of the requirements to notify the DNO.

Q11. What use cases for asset visibility should be considered as priorities and why?

There are several different use cases for asset visibility. The first are use cases for the discovery of assets that should be registered. The second is visibility of the asset data once collected. We would make the following comments.

- We would support the use of an agile approach where use cases are generated and then prioritised against a development process with a fixed resource. The key role of product owner would be needed to perform the prioritisation, and this could lie with a suitable person from the market facilitator.
- For use cases regarding the discovery of assets for registration then we would suggest a set of principles, many of which are covered in the above questions, but which could include factors such as:
 - Available of data from authoritative source systems
 - Ease of identification from an existing workflow (e.g. connections, supplier registration etc.)
 - Aggregate level of flexibility provided by enabling an asset class
- For use cases regarding the visibility of assets, then more exploration needs to occur to define factors for prioritisation. Could there be cases around asset visibility for Local Energy Planning? Could Ofgem consider providing guidance on the visibility of asset data into existing open data platforms? Open Data would be a possible platform where the data can be put into visualisation tools, provided the data is sufficiently aggregated and anonymised, and security considerations are taken into account.

Q12

(no response)