ELEXON

23 September 2024

By e-mail to: flexibility@ofgem.gov.uk

Dear Decentralised Energy Systems Team

Re: Flexibility Market Asset Registration Consultation

Thank you for the opportunity to respond to your consultation on Flexibility Market Asset Registration. We believe this Register addresses a key barrier to bringing flexibility services to market, and Ofgem's Flexibility Market Asset Registration is a positive first step.

Elexon is an independent, not-for-profit, expert delivery body that has been operating for 25 years, playing a critical role in opening up markets and supporting the transition to a net zero energy system. We provide governance, settlement and data platforms (Elexon Kinnect), and specifically manage the Balancing and Settlement Code (BSC). This enables the smooth and effective operation of the electricity market, which includes energy suppliers, generators, flexibility service providers and network companies across GB. Over the past year, we have helped around 50 new companies enter the market, enabling a more flexible and innovative energy system.

Our end-to-end expertise in governance, assurance, technology platform development and electricity market data are available to support the industry, Government and Ofgem, as the energy sector transitions to net zero. Building on our purpose of serving the industry, the electricity market data we hold is open, and available for anyone to access, analyse and distribute. As a trusted and reliable market expert, we continuously look to evolve and innovate for the benefit of our customers and consumers.

Ofgem has appointed us as the Market Facilitator for local Distribution System Operator (DSO) markets, a central role in flexibility markets. We are also the Senior Responsible Owner for implementing the Market-wide Half Hourly Settlement (MHHS) Programme, a key enabler of the flexibility required for the transition to net zero. We also calculate, collect and distribute payments incentivise investment in low carbon generation and energy security for the Capacity Market, Contracts for Difference (CfD) and Nuclear RAB schemes, on behalf of the Low Carbon Contracts Company (LCCC).

We have limited our response to areas where we believe we can add value. If you would like to discuss any areas of our response, please contact Hussein Osman, Market Intelligence Advisor (Hussein.Osman@elexon.co.uk)

Yours sincerely,

Peter Stanley
Chief Executive

Telephone: 020 7380 4100
Website: www.elexon.co.uk

Elexon, 350 Euston Road
London, NW1 3AW

Registered office 350 Euston Road, London NW1 3AW
Reg Co No: 3782949 Registered In England and Wales

Summary of our response

Last year's Call for Input identified existing market failures in flexibility markets and emphasised the crucial role flexibility will play in the future power system, with DESNZ modelling suggesting flexible energy use could save between £30-70 billion in system costs from 2020 - 2050. With the government's recent commitment to achieve clean power by 2030, urgent action is needed. Flexibility markets must be designed to be open, transparent, coordinated, and fair, allowing Flexibility Service Providers (FSPs) to participate seamlessly.

Recent progress includes Ofgem's appointment of Elexon as the Market Facilitator. However, this is only one part of the solution. More work is needed to meet the 2030 goal, and this workstream is a crucial piece of the puzzle.

We welcome this workstream and the introduction of a Flexibility Digital Infrastructure (FDI). We are strongly supportive of Ofgem's iterative approach to delivering the FDI with focus initially being on a Flexibility Market Asset Register (FMAR), which provides a solution to one of the main barriers that prevent assets coming to market, whilst also allowing other FDI outcomes to be driven by the market and different teams at Ofgem without intervention.

We also believe that the Market Facilitator is best suited not only to lead pre-work activities, such as enabling work and leading the working groups on the design of the FMAR, but also to be responsible for its delivery and ongoing operation, as part of an integrated model. This approach and its benefits are demonstrated by Elexon's role where we are both the Code Manager and delivery body for BSC central systems, and the relationship with existing wholesale asset registration. Among the listed options, the Market Facilitator is the only entity with the required neutrality, expertise, and accountability to successfully deliver the FMAR. We recommend that Ofgem leverage the synergies between the Market Facilitator and the FMAR for both delivery and operation.

Elexon has demonstrated its capability in asset registration, including for flexibility assets in the Balancing Mechanism and Wholesale markets, and has successfully managed similar deliverables, during the Market-Wide Half Hourly Settlement (MHHS) design phase. Elexon chaired two industry working groups and played a key role in the Architecture Working Group (AWG), which proposed an event-driven architecture to meet MHHS requirements. Once these recommendations were ratified, Elexon was tasked with implementing and rolling out the new Data Integration Platform (DIP). We foresee similar arrangements for this workstream, where the Market Facilitator works alongside the industry to develop the design of the FMAR and is later chosen to deliver the enduring solution.

While we were generally supportive of the overall policy aims and content, we would like to highlight the need for timelines to be more ambitious and detailed - similar to timelines for other initiatives like the Data Sharing Infrastructure and Consumer Consent Solution. We also recommend a coordinated approach between various workstreams, given the interdependencies of progress on FDI outcomes, Data Sharing Infrastructure, and Consumer Consent Solution, to avoid a disjointed approach and manage risks of delays. We recommend that Ofgem have regular oversight and publish a timeline with deliverables and success criteria, to support to ensure that the responsible parties are accountable. While we support the integrated approach, we urge that the FMAR continues to progress and remains flexible, allowing for adjustments if delays occur in related FDI outcomes without holding up the FMAR's delivery.

We are generally supportive of the proposed scope of the FMAR, however in our response we

suggest that some of the details are complex and should be discussed in the Working Group to gather views and try resolve.

Elexon's consultation response

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

Yes. In response to Ofgem's call for input last year, we agreed that change was needed to overcome current market failures and supported the introduction of what was then called the Common Digital Energy Infrastructure (CDEI), now referred to as Flexibility Digital Infrastructure (FDI). Elexon's position remains supportive - we believe this intervention is necessary given current market and regulatory incentives have not produced a flexibility market asset register or similar tool that provides visibility of distributed assets, available for the DSO and ESO markets.

We support Ofgem's gradual, evolutionary approach rather than a sudden overhaul. Feedback during Elexon's engagement with industry during our research for the Market Facilitator and FDI work has highlighted the need for an iterative approach, given that flexibility markets are still developing, and significant changes could cause disruptions and slow down development.

However, for any new FDI for asset registration to succeed, groundwork must be laid, and barriers removed. We welcome the team's coordinated approach, where the Market Facilitator progresses the enabling work and aligns registration processes between market operators to ensure the success of the Flexibility Market Asset Register (FMAR). This integrated approach to local flexibility market governance and systems, is something we recommended last year, and was highlighted in our responses to Ofgem's consultation on DSO governance and call for input on distributed flexibility.

Establishing the FMAR and allowing the industry to progress other key FDI outcomes, such as product and market visibility, will address the market failures identified by Ofgem in its initial call for input. For example, asset registration combined with market visibility will eliminate the issue of information asymmetry, where market operators and buyers lack visibility of available assets and markets. Registering flexibility market assets is a critical first step for Ofgem, and when paired with other FDI developments, it will help guide future actions. We fully support this phased approach.

2. **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?**

As highlighted in our response to question one, we fully support an iterative and phased approach. This will not only allow the industry to realise some of the benefits of flexibility sooner and address specific market failures, but also enable the industry to evolve, innovate, and bring solutions to market without intervention.

However, we see some risk if the other FDI outcomes are delivered by different teams or organisations, leading to a disjointed approach. To mitigate this, we recommend that the Decentralised Energy System team define the outcomes for each FDI outcome and establish clear criteria for success. We also suggest the team create a timeline with deliverables so that progress can be monitored. If progress stalls or outcomes are not met, intervention should be considered. The Decentralised Energy Systems team should oversee all FDI outcomes and provide regular updates to the industry to maintain alignment. In light of the new target for a clean power system by 2030, Ofgem should move quickly and encourage the industry to do the same with the other FDI outcomes. The sooner these outcomes are achieved, the faster we can realise the benefits and help meet the government's target.

We would also like to highlight the risk that individual FDI outcomes could slow down one another, particularly where there are interdependencies. For instance, the common asset registration outcome relies on a data standardisation and sharing mechanism, which is expected to be delivered by the Data Sharing Infrastructure (DSI). However, the DSI is still in the consultation phase, with many uncertainties, and flexibility use cases won't be fully implemented

until 2028— assuming the pilots and minimum viable product (MVP) are successful.

Based on this, we recommend that the Market Facilitator, in collaboration with industry during the design workshops, deliver the FMAR solution, underpinned by interim data standards and sharing mechanism. This solution should allow flexibility for the DSI to be integrated at a later stage if the timelines do not align. This approach would enable earlier benefits and reduce the risk of delays, based one workstream affecting another.
The FMAR solution should incorporate Data Best Practice principles, similar to how we are developing the Data Integration Platform (DIP), where we used Dublin Core metadata standards and a data catalogue to ensure accessibility and discoverability for market participants.

3. **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?**

We agree with the policy initiatives and industry developments highlighted in the consultation and appreciate the overview provided. However, we strongly recommend, a more detailed analysis of how these initiatives - particularly those from Ofgem and Department of Energy Security and Net Zero (DESNZ) - align and interact would be more beneficial for the industry as a whole.

We support a coordinated approach and suggest avoiding duplication of efforts, especially in an industry with limited capacity and for best use of resources, which are ultimately paid for by the consumer. For example, the Automatic Asset Registration (AAR) and Central Asset Registration (CAR) under DESNZ's Net Zero Innovation Programme appear to have similarities with this workstream. Although the FMAR focuses specifically on flexibility markets use case, its objectives align with those of AAR and CAR, particularly in increasing asset visibility.

While AAR and CAR are innovation projects and their scalability and commercialisation are uncertain, we recommend further involvement from the Market Facilitator, particularly around the flexibility use case as part of its strategic leadership function. We suggest that Ofgem advance with the FMAR policy and, during the design workshops, the Market Facilitator with industry assess the potential integration of FMAR into the AAR and CAR if they prove successful.

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

We are supportive of the proposed scope (subject to detailed comments below). We do believe some of the details are complex, and would benefit from being discussed in a Working Group context to understand and incorporate a diverse range of views. We therefore encourage Ofgem to leave detailed questions of scope to be resolved in collaboration with the Working Group wherever possible (rather than making firm decisions at an early stage that may subsequently turn out to constrain the design or limit the value that can be obtained from FMAR).

Markets in Scope

Balancing Mechanism

We support the approach of prioritising those markets most valuable to distributed assets, and we therefore support the inclusion of the Balancing Mechanism (BM) within scope. Though, we note that it is currently BSC Systems (rather than the ESO's Single Market Platform) that are used to register the individual assets participating within the BM (and verify that multiple FSPs are not attempting to bid the same asset into the BM simultaneously).

We therefore believe that Elexon needs to be included in the FMAR design process as operator of BM registration systems (as well as Market Facilitator), and that implementation of the FMAR design may require minor consequential changes to BSC Section S10, to clarify that information about assets participating in the BM may be retrieved from FMAR (rather than provided afresh by the Lead Party), where FMAR already holds details of the specific asset.

Wholesale markets

We are broadly supportive of leaving the wholesale markets out of scope, as wholesale markets do not necessarily require asset registration processes (e.g. a Supplier using a flexible asset to manage the demand shape of their own portfolio is not required to register asset details with a third-party system in the way they would if selling flexibility to a DSO or ESO). However, this argument does not apply to independent aggregators acting as Virtual Trading Parties to sell flexibility into wholesale markets (using BSC Modification P415, to be delivered in November 2024). We propose that this particular use case should be included within the scope of FMAR, given it does depend on a central registration process (e.g. to track whether consumers have consented to BSC Systems disclosing to their electricity supplier details of the MWh volumes they sell into the wholesale market through their VTP); and

The asset registration processes for P415 are shared with those for the BM (in order to facilitate splitting of capacity between the two markets). Therefore, in practical terms it would be difficult to include BM within FMAR scope but not P415.

Assets in Scope

We support the approach of initially focusing on small-scale assets (where the cost of multiple complex registration processes is higher, when compared to the potential revenue from participation in flex markets). However, we do not agree that a 'hard' 1 MW threshold on asset size is the best way to deliver this approach. For example, once a particular DSO or ESO market is integrated with FMAR, it could be more appropriate and efficient for details of all assets participating in that market to be shared via FMAR, rather than 'filtering' on an arbitrary 1 MW threshold. This is an issue that could be left to the design stage to address.

Data in Scope

We support the general approach of focusing on static data (rather than operational or dynamic data), and on data that is shared across multiple markets. We also support the proposal that a Working Group should determine the data items within scope, and maximise the sharing of data across markets. Some initial thoughts on issues for the Working Group to consider are:

1. Given domestic-scale assets are typically not large enough to participate in markets individually, we propose that the Working Group should consider whether the FMAR should also hold data on how FSPs have grouped individual assets into "portfolios" or "units" capable of bidding into markets. This is not necessarily a straightforward question to answer, as factors to consider include the following:

- The grouping of assets into units will not necessarily be the same across all markets e.g. a national market such as the BM may require units that are larger (both geographically and in capacity) than a local DSO market. But this does not necessarily mean that asset groupings are specific to a single market.

- Historically, some of the technical asset data within the proposed FMAR scope (such as ramp-up rates, ramp-down rates and minimum/maximum duration of operation) has been registered with market operators at unit level rather than asset level (in order to support decisions about dispatch which are taken at the unit level).

2. The Working Group will need to consider the different types of data to which customer consent may relate. Much industry discussion has focused on customer consent to disclosure of half hourly metered data, but within the context of flexibility markets there are many other data items for which customer consent may need to be tracked (e.g. the current BM processes record customer consent for disclosure to electricity suppliers of flexibility volumes traded through independent aggregators, as required by Ofgem in their decisions on BSC Modifications P344 and P354).

3. The Working Group should consider the extent to which the FMAR should track and/or prevent the same asset being used simultaneously by multiple FSPs. In the context of the BM, the BSC includes processes to ensure that only a single FSP is using the same asset in the BM on the same day. There are potential challenges in extending such processes to the multiple

markets within FMAR scope (particularly as the rules around whether different FSPs can simultaneously use the same asset in different markets may not currently be clear), but there are potential advantages in ensuring robust markets and building consumer confidence in flexibility.

4. Most of the data items within the FMAR scope can change over time, so the Working Group will need to consider appropriate mechanisms for supporting this (e.g. versioning or effective dates).

5. The Working Group should consider whether to include metering details within the FMAR. Although metering arrangements are not necessarily the same across markets, there are clear advantages to FSPs and customers in facilitating the use of metering equipment across multiple markets where appropriate, and including relevant data in the FMAR could help to facilitate this.

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

We agree that these functional outcomes are a good starting point. We also support the proposal that these can be further refined where necessary by industry Working Groups. Our initial comments on the detail are as follows:

- As a functional outcome, we support the idea of FMAR providing access to a single master data record for each asset participating in flexibility markets, provided it is not interpreted as tying the Market Facilitator into a specific technical architecture. It may or may not be appropriate for the master data to be stored in a single centralised system for all assets (and further investigation of this will be needed).

- It seems sensible that there should be a process for allocating a unique asset ID to each asset participating in flexibility markets. However, it should be noted that this does not in itself enable de-duplication of asset data records. For example, suppose a FSP is trying to register an asset which has similar technical details to an existing asset registered (by a different FSP for a different market) at a property with the same postcode and a very similar address. The task of establishing whether the two assets are actually the same is challenging, most likely requiring business processes that are difficult to fully automate.

- Similarly, the concept of a unique user ID is sensible, though robust business processes are needed to maintain user ID details (and these processes need to recognise that individuals move between organisations over time, and may in some cases work on behalf of multiple organisations at the same time).

- Based on our experience of operating asset registration for the BM, we believe the FMAR may need to actively notify users of data changes made by other users (rather than just passively responding to requests for data). For example, an asset has been registered by one FSP, but then a different FSP registers their intention to use it in a different market from a future date. Depending on the circumstances (and rules about multiple FSPs using the same asset) this may indicate that the customer has switched FSP, in which case FMAR should notify the first FSP (giving them the opportunity to dispute the change if they believe it to be erroneous).

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

We agree that the design principles are a good starting point to guide the Working Group.

7. 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 proposals that the enabling work and design activities be led by the Market

Facilitator. As mentioned in our response to question five, we believe that maintaining a single master set of asset data across multiple markets will potentially require complex processes for updating and de-duplicating data, which the Working Group will need to consider. For example:

- A process for determining whether two similar-seeming asset registration requests are in fact referring to the same asset, or two similar but different assets (see our response to Q5 above)

- If market rules allow two FSPs to use the same asset in different markets, any update to asset-related data made by one potentially impacts the other. Processes may be needed to ensure that both are made aware of any updates, and disputes between them can be resolved.

8. **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 believe the Market Facilitator is best positioned to deliver the FMAR FDI. As a single, neutral, expert entity with no direct involvement in markets, and accountable to Ofgem, Elexon (as the Market Facilitator) is uniquely positioned to take on this role. Among the options outlined in the consultation, the Market Facilitator is the only organisation with the essential principles of neutrality, expertise, and accountability required for delivery. Leveraging the synergies between the Market Facilitator and the delivery body role is key. Below is an outline of why the Market Facilitator is the best fit:

- Neutrality: The Market Facilitator will be impartial and independent, acting in the best interests of the markets without participating in them. Any incoming delivery body will need to embed neutrality and trust, as lacking these could lead to inefficiencies or conflicts of interest.

- Inclusivity and Collaboration: The Market Facilitator will ensure inclusivity and collaboration principles are its core, ensuring market participants and customers' needs are reflected in rules and decisions. These principles are crucial for any design and build activities.

- Accountability: The Market Facilitator will be a single, accountable organisation, which Ofgem can oversee. This ensures clear responsibility for delivery, avoiding confusion if multiple organisations are involved, which could also slow down the process.

- Previous experience in establishing and delivering similar arrangements –
  In the initial Target Operating Model (TOM) design phase for Market-Wide Half Hourly Settlement (MHHS), Elexon chaired two industry-wide working groups. Under the Code Change and Development Group (CCDG), we provided technical leadership in developing the MHHS TOM. We also chaired the Architecture Working Group (AWG), which in 2021 recommended an event-driven architecture to meet MHHS requirements. After these recommendations were ratified, Elexon was tasked with implementing and rolling out the new DIP, an industry-wide data transfer service for half-hourly smart meter data. Elexon will also operate the DIP once it is fully developed and commissioned, focusing on its data governance framework and future non-MHHS use cases. And through our role in the Balancing Mechanism, we have significant experience and understanding of some of the issues relating to registration of assets for use in flexibility markets.

  This resembles some of the proposals outlined for how this workstream could develop, where the Market Facilitator would lead enabling and design activities, work with industry to build consensus on the FMAR, and then be appointed to deliver it.

In regard to Ofgem's concerns about the Market Facilitator taking on this role, we believe the following points address and mitigate those risks:

- Expertise – While Ofgem highlighted that the Market Facilitator currently lacks expertise in ESO and DSO flexibility markets, we disagree. We have demonstrated our Market Design expertise, as outlined in our response to Ofgem's consultation on the Market Facilitator Delivery Body. However, we recognise the need to further build this expertise. Over the next 12 -18 months, the Market Facilitator will increase the necessary expertise, ensuring it is fully prepared to deliver in both ESO and DSO flexibility markets by the time it goes live.

- Additional Responsibility – The 2022 DSO governance review concluded that DSO functions should be managed by the most competent and credible organisations in an 'interacting organisations' framework. Ensuring consistency, given the alignment with the Market Facilitator's role, we strongly recommend keeping this within the Market Facilitator's remit to avoid complicating the landscape with additional organisations. While there is a need for swift delivery, we believe the Market Facilitator can handle these responsibilities from Day 1.

- Potential Delay – There is a concern that the Market Facilitator's planned go-live in early 2026 may cause delays to the FMAR development. However, since this falls within the Market Facilitator's scope, Elexon can begin the work from November 2024, once Elexon's vires has been extended to take on the Market Facilitator role. We support the Open Networks delivering the enabling work in the interim, with Elexon taking over during the transition in 2025, ensuring there is no loss of momentum.

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

We generally agree with the proposed timelines for the FMAR FDI but believe they should be more ambitious, especially given the Government's target of achieving a clean power system by 2030. We would also like to see a more detailed plan with key milestones, as the current plan, apart from the two dates, does not provide enough information for the industry. While we acknowledge there are many interdependencies, such as the Market Facilitator role and DSI, it is important that more ambitious workstreams do not delay the delivery of this FDI outcome. We propose that the FMAR remains flexible and scalable to allow for seamless integration of future changes.

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

We do not have any specific recommendations for existing or new policy levers, however for any solution aimed at improving asset visibility to succeed, market participants must adopt the right behaviours and be properly incentivised. Without these incentives, the solution will not deliver its intended outcomes.

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

The following use cases should be prioritised for asset visibility:

- Flexibility – Asset visibility and registration in flexibility markets are one of the main barriers for market operators and flexibility service providers. Improving visibility and registration is a foundational step towards enabling flexible services to enter the market and play a significant role in the future energy system.

- Planning – Currently, only about 40% of new small-scale assets are registered with DNOs, leaving them unaware of what is on their networks. This issue will worsen as more low carbon technologies are integrated. Improved asset visibility will help network operators understand their networks better and feed into better network planning, preventing both over build and under build, which can be equally problematic, ultimately resulting in better system security and consumers' savings. As highlighted in the consultation, the shift from large, transmission-based assets to more distributed, smaller assets on the network makes it crucial to move away from 'flying blind.' We need full visibility, particularly on smaller, low-carbon technologies like Electric Vehicles, Heat Pumps, Charge Points, and similar assets. This visibility is essential to ensure effective management and integration into the energy system.

Future asset visibility could also facilitate the integration of new business models by leveraging data and information from asset registration. However, this should be prioritised at a later stage.

12. **What costs, benefits or factors should be considered in a Cost-Benefit Analysis for asset registration solutions? Consideration should be given to:**

    No comment.