

## **Flexible Market Asset Registration**

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

A1. equiwatt agrees that policy intervention is necessary to deliver common Flexibility Market Asset Registration. The lack of a unified asset registration process across flexibility markets has been a significant barrier to market entry, especially for distributed energy resources (DERs). Without a single source of truth for asset data, it becomes inefficient for asset owners to participate in multiple flexibility markets. Coordinated policy intervention will ensure interoperability and alignment across platforms, creating a more streamlined and accessible market landscape for flexibility providers, particularly residential and small-scale participants like those we work with at Equiwatt.

### **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?**

A2. We largely agree that policy intervention for other FDI outcomes is not immediately required, as progress is being made through industry collaborations and market developments. For example, solutions like Piclo Max and the ENA Open Networks programme are delivering valuable outcomes. However, we believe there are risks in assuming that all outcomes will naturally evolve without intervention. For instance, interoperability challenges between ESO and DSO platforms could persist, limiting the potential of distributed flexibility. We recommend maintaining a flexible approach to policy, with ongoing monitoring and readiness to intervene if commercial or industry-driven solutions fall short.

### **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?**

A3. There are several international developments and policy alignments that could inform FDI policy development. For example, the European Union's OneNet programme, which aims to standardise market frameworks and open-source digital infrastructures, offers valuable insights into how common architectures can facilitate cross-border flexibility trading. Additionally, in the UK, the work being done under the Smart Systems and Flexibility Plan to remove market participation barriers aligns well with the goals of the FDI. Lastly, it is important to monitor innovation projects like the NZIP FMU and NZIP AAR programmes, which are trialing solutions directly aimed at overcoming the barriers to flexibility market participation.

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

A4. equiwatt, broadly agrees with the proposed scope for markets, assets, and data in the Flexibility Market Asset Registration digital infrastructure. The focus on aligning ESO and DSO registration processes is critical to improving accessibility and reducing the complexity for smaller, distributed energy resources (DERs), such as electric vehicles and home energy storage systems, which are a significant part of our customer base. This alignment will help to

address the barriers to market entry and improve liquidity by allowing flexibility providers to access multiple markets more easily.

**Markets:** We agree with prioritizing ESO and DSO markets, as they are currently the most relevant for distributed assets and offer the most immediate value for revenue stacking. However, we encourage ongoing exploration of future integration with markets like the Capacity Market and, potentially, Wholesale markets. While these markets are currently out of scope due to their distinct structures and reform priorities, they represent a potential opportunity to expand flexibility market participation in the long term.

**Assets:** We fully support the initial focus on small-scale assets, particularly domestic and small business assets like electric vehicles, heat pumps, and home batteries. These are exactly the types of assets we work with at Equiwatt, and reducing the registration burden on these high-volume, small-scale assets is essential for scaling up flexibility participation. We also agree that larger assets above 1MW should be considered for future iterations, but this should be done in a way that balances cost and complexity.

**Data:** The emphasis on static data for market registration, such as flexibility service data and technical asset data, is appropriate at this stage. This aligns with our experience in managing distributed assets. Dynamic data like operational status or pricing should remain outside the scope of this infrastructure for now, as it adds complexity without directly supporting registration processes. However, ensuring that the infrastructure can integrate trusted external data sources, such as OEM device catalogues and network management systems, will be crucial to maintaining data quality and trust.

Overall, the scope covers the key elements needed to simplify market entry for distributed flexibility providers. However, in addition to the current considerations, we suggest that future iterations explore expanding the infrastructure's capability to manage aggregated DER data. Aggregation is critical to unlocking flexibility for residential assets, and simplifying the aggregation process could drive further participation.

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

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

We agree with the design principles outlined for the digital infrastructure. Delivering quality solutions in a timely, secure, and cost-effective manner is essential, and the principles outlined reflect these priorities well.

**Quality, Performance, and Usability:** Focusing on user experience and effective data management is essential. Given that flexibility markets are still evolving, the infrastructure must provide a seamless experience for users, particularly those managing smaller-scale distributed assets. Security and operational capabilities should be prioritised, especially as many of these assets might interface with critical national infrastructure in the future.

**Timely and Pragmatic Delivery:** We appreciate the focus on delivering within the required timelines while considering the industry's readiness. The ability to evolve and adapt to future needs is critical, particularly as the flexibility market grows and more participants enter.

**Cost-Effectiveness:** The emphasis on delivering outcomes at an efficient cost is key, especially for smaller players like Equiwatt, who manage a large number of small-scale assets. Reducing unnecessary costs and streamlining processes will encourage wider participation in flexibility markets.

**Security, Resilience, and Privacy:** Given the potential interaction with critical infrastructure, robust security measures are vital. As a company that works with residential assets, we also place a strong emphasis on data privacy and the management of consumer consent, so aligning with GDPR and Ofgem's consumer consent frameworks is critical for building trust with end-users.

**Competition and Innovation:** Avoiding vendor lock-in and supporting innovation is essential. The ability to integrate with evolving technologies will help the infrastructure remain relevant and capable of supporting future developments in flexibility, which aligns with Equiwatt's vision of using cutting-edge technology to drive energy savings and participation in flexibility markets.

**Legally Deliverable and Effective Accountability:** Ensuring that the relevant entities have the necessary legal powers and that clear lines of responsibility are established is crucial for the success of the infrastructure. Transparency and stakeholder engagement will be important for building confidence in the system.

**Additional considerations:** As the market evolves, the ability to accommodate aggregation models for smaller assets should also be considered within the design principles. Aggregation is key for smaller assets to participate in flexibility markets, and ensuring that the digital infrastructure can support this will be important in the long term.

**Q7. Do you agree with the enablers and design activities needed and for the Market Facilitator to coordinate Working Groups for them?**

**A7.** equiwatt agrees with the proposed enablers and design activities necessary for developing Flexibility Market Asset Registration and believe the approach of having the Market Facilitator coordinate these activities through Working Groups is both logical and beneficial.

**Enabler activities for alignment:** Aligning ESO and DSO flexibility market processes, including pre-qualification, is a vital step in ensuring uniformity across the market. The focus on standardisation in procurement processes and data requirements is essential for simplifying market participation for all actors, particularly for smaller flexibility service providers (FSPs) managing distributed energy resources (DERs). Standardising reference architectures, data models, and communication protocols will greatly facilitate interoperability across platforms and services.

Additionally, aligning these standards to international protocols and ensuring they are open source where possible is important for encouraging innovation and reducing vendor lock-in. This will help foster a competitive environment where smaller actors can compete on equal footing.

**Design activities for digital infrastructure:** We fully support the development of socio-technical requirements for digital infrastructure, covering both functional and non-functional elements like data storage, API interfaces, and technical functionality. Equiwatt particularly appreciates the emphasis on operational processes, governance, and data compliance, as these are areas that will have a direct impact on residential asset owners

participating in flexibility markets. Defining these elements from the outset will ensure that systems are built with resilience and security in mind.

**Role of the Market Facilitator:** Assigning these responsibilities to the Market Facilitator aligns with the facilitator's role in market coordination and strategic leadership. Elexon, as the assigned Market Facilitator, has the necessary independence and expertise to lead these activities, and its experience in overseeing large-scale change processes provides confidence that the work will be carried out effectively. We agree that assigning this responsibility to other entities, such as the ESO or ENA, risks duplicating roles and fragmenting the process, which could lead to delays or misalignments across the sector.

**Interim measures:** While we support Elexon's role as the Market Facilitator, the interim suggestion of having the ENA include some of these enabler activities in its Open Networks programme seems a pragmatic solution. Many of the activities around alignment are already in progress, and it makes sense to continue advancing this work while the Market Facilitator role is fully operationalised. This will prevent delays in critical areas, like standardising flexibility market processes and contracts.

**Stakeholder involvement through Working Groups:** We strongly agree with the proposal to convene Working Groups with broad stakeholder representation. Given Equiwatt's focus on residential demand flexibility, we would expect that FSPs managing small-scale assets, like us, are included in these discussions to ensure that the needs of smaller players are taken into account. We also appreciate the inclusion of consumer groups, as the success of flexibility markets depends on trust and engagement from end-users.

In particular, we would advocate for ensuring that the Working Groups include technology providers and asset OEMs who are at the forefront of innovation. This collaboration is essential to ensure that the infrastructure and processes developed are future-proof and capable of supporting evolving technologies, such as energy storage systems, electric vehicles, and other smart devices.

**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?**

**A8.** equiwat recognises the importance of selecting the right delivery body for the Flexibility Market Asset Registration digital infrastructure. We support the need for a responsible entity that is both accountable and capable of handling the complexities of data collection, storage, and access. Below are our views on the proposed delivery body options, their advantages, disadvantages, and some considerations:

#### **Option 1: Business as Usual (BAU) / Commercial Solution**

While a market-driven solution could promote innovation and competition, we agree with Ofgem's assessment that this approach is unlikely to emerge in a timely manner, if at all.

Commercial solutions today are fragmented, and without clear governance structures, this approach risks prolonging misalignment across the sector. The likelihood of achieving the necessary interoperability and standardisation for a national digital infrastructure under a purely market-based solution seems slim, especially when smaller flexibility service providers (FSPs) like us require transparent and reliable systems that are harmonised across different actors.

**Advantages:**

- Minimal policy intervention.
- Could drive competition and innovation.

**Disadvantages:**

- Unlikely to deliver on time, if at all.
- Lacks governance mechanisms and accountability structures.

**Option 2: DNO/DSOs**

Although DSOs are experienced in procuring distributed flexibility and already manage data on assets connected to their networks, they are not neutral actors in the flexibility market. DSO-led solutions would likely suffer from a lack of impartiality, which could discourage smaller FSPs and other market participants from engaging fully. Additionally, the variation in existing approaches across DSOs suggests significant challenges in achieving the required standardisation.

**Advantages:**

- Regulated entities with accountability.
- Experience in distributed flexibility and digital procurement.
- Already handle asset data on distribution networks.

**Disadvantages:**

- Not neutral in flexibility markets, which could result in conflicts of interest.
- Significant divergence in current approaches across DSOs.

**Option 3: ESO**

The ESO is a regulated body with substantial experience in flexibility and digital services, including the operation of the Single Markets Platform. However, it also lacks neutrality in the flexibility market. Moreover, the existing Single Markets Platform may not be suitable for handling the distributed assets that are central to flexibility markets, such as those managed by FSPs like Equiwatt.

**Advantages:**

- Regulated and accountable.
- Strong experience in flexibility and digital services.

**Disadvantages:**

- Not a neutral party in flexibility markets.
- Unclear if the Single Markets Platform can accommodate distributed assets.

**Option 4: Market Facilitator (Elexon)**

Elexon's neutrality makes it an attractive candidate for the role of delivery body. Its existing remit as Market Facilitator for aligning ESO and DSO markets fits well with the responsibility of delivering a digital infrastructure for flexibility market registration. Furthermore, Elexon's experience in delivering market-wide digital services and its impartiality make it a strong contender. While this would increase its scope of responsibilities, we believe that Elexon's governance mechanisms can ensure accountability and impartial oversight.

**Advantages:**

- Neutral entity that can be trusted by all market participants.
- Expertise in coordinating ESO and DSO markets.
- Strong governance mechanisms for accountability.

**Disadvantages:**

- Additional resource requirements for Elexon.
- Limited subject matter expertise in flexibility markets (though this could be addressed through collaboration with industry stakeholders).

**Option 5: Entity with Formal Enduring Role**

Assigning this responsibility to a code administrator or Central Systems Delivery Body (CSDB) is another viable option. Entities such as Electralink, DCC, or Gemserv have experience in delivering IT services and managing data for the energy sector. However, assigning them this responsibility could be a stretch beyond their current remit, and the mechanisms for holding them accountable may be less clear. Their experience with flexibility markets may also be limited.

**Advantages:**

- Neutral entities with experience in delivering IT services.
- Impartiality increases trust among stakeholders.

**Disadvantages:**

- May lack the necessary experience in flexibility markets.
- Assigning responsibility and ensuring accountability could be less straightforward.

**Discounted Approaches**

We agree with the justification for discounting the creation of a new delivery body. Introducing a new entity could duplicate the role of the Market Facilitator and lead to inefficiencies. Additionally, we agree with the decision to discount the Independent Market Platforms (IMPs) holding asset data, as these entities are not licensed, lack the necessary legal mechanisms, and have strong disincentives to share data with competitors. This could lead to fragmentation and misalignment.

### **Additional Considerations**

One important factor in choosing the delivery body is ensuring that smaller FSPs, like Equiwatt, have equal access to the infrastructure and can participate on a level playing field. It's also important that the solution can handle a growing number of distributed assets, as flexibility markets will increasingly depend on residential and small-scale assets. The digital infrastructure should be designed with scalability, resilience, and future-proofing in mind.

Overall, we believe that Elexon, as the Market Facilitator, is best positioned to deliver the Flexibility Market Asset Registration digital infrastructure. Its neutrality, alignment with existing market coordination roles, and governance mechanisms make it a suitable choice. We recommend that any final decision ensures broad stakeholder involvement, including from smaller FSPs, to ensure the infrastructure meets the diverse needs of the flexibility market.

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

A9. equiwatt agrees with the urgency and significance of the proposed timelines for delivering a common Flexibility Market Asset Registration digital infrastructure. Given the rapid electrification of transport and heating, alongside the growing emphasis on flexibility markets, it is vital that the digital infrastructure be in place to support these markets. Below are our reflections on the proposed timelines and additional considerations:

#### **Alignment with Market Growth (2025-2028)**

The projection of around 20 million battery electric vehicles (EVs) and 10 million heat pumps by 2035 illustrates the immense scale of change in the coming decade. We agree that establishing a robust digital infrastructure for asset registration between 2025 and 2028 is crucial to ensure that these distributed assets can actively participate in flexibility markets.

The timeline also aligns well with the Market-wide Half-Hourly Settlement (MHHS) in 2026, which will be a key driver for the participation of distributed assets in flexibility markets. Ensuring that the registration infrastructure is in place in time for MHHS is essential for facilitating participation from the moment new market structures are in place.

The 2028 goal, positioning Great Britain as a leader in flexibility markets, is ambitious yet achievable, provided that the infrastructure supports seamless participation across all markets. This vision will require coordination across industry players, including flexibility service providers (FSPs) like Equiwatt, network operators, and other stakeholders.



## **Critical Milestones and Coordination**

The 2025 milestones for the launch of the Market Facilitator and the minimum viable product (MVP) of the Data Sharing Infrastructure (DSI) are also timely. We believe that coordination between these projects will be critical to ensure smooth deployment and interoperability of the digital infrastructure.

By aligning the flexibility market registration infrastructure with the outputs of ongoing NZIP innovation projects, such as the Asset Assurance Registry (AAR) and Flexibility Market Unlock (FMU), the delivery body can leverage these outputs to inform policy development and technical solutions. The anticipated completion of these projects in March 2025 offers an opportunity to incorporate cutting-edge innovations into the digital infrastructure.

## **Scalability and Future-Proofing**

While the proposed timelines provide a solid foundation, we recommend that flexibility and scalability be embedded into the infrastructure from the outset. The number of assets that will require registration, particularly in flexibility markets, will continue to grow beyond the initial rollout. It is essential that the system is designed not only for the anticipated 2025-2028 deployment window but also for scaling as asset numbers rapidly increase post-2028.

From our perspective at Equiwatt, this means building an infrastructure that can accommodate a significant influx of new assets without requiring major overhauls or expensive system updates. Moreover, with residential assets playing a pivotal role in flexibility, the system should be user-friendly for FSPs managing smaller assets, such as EVs, heat pumps, and smart appliances.

## **Considerations for Data Sharing and Interoperability**

One area that may warrant further consideration is ensuring that the timeline allows for thorough testing of data sharing and interoperability between the ESO, DSOs, and third-party FSPs. The decentralised nature of future energy systems means that a wide range of actors will need access to the same datasets in real-time to enable efficient market operation. Ensuring that APIs and interfaces are not only functional but also secure and interoperable will be a critical factor in achieving the seamless market participation envisioned for 2028.

## **Managing Policy and Market Uncertainty**

We also believe that the delivery body should be agile enough to respond to potential changes in market structure and policy. The Review of Electricity Market Arrangements (REMA) and other ongoing consultations could lead to shifts in how flexibility markets operate. As such, the infrastructure must be adaptable to incorporate any regulatory or market changes that may arise during the deployment phase and beyond.

## Additional Considerations

1. **Engagement with Smaller FSPs:** Given that smaller FSPs like Equiwatt will be crucial in managing the increasing volume of distributed assets, the delivery body should engage proactively with a diverse range of FSPs to ensure that the registration system is designed with all market participants in mind, not just larger entities.
2. **Cybersecurity and Data Privacy:** Given the growing importance of flexibility markets and the sheer number of assets that will be involved, cybersecurity and data privacy must be prioritised throughout the infrastructure design and deployment process. We recommend considering these factors early in the timeline to avoid retrofitting security features later, which could delay rollout.
3. **Consumer Participation:** For many residential assets, consumer consent and participation will be vital. Ensuring that the registration system makes it easy for consumers to opt-in to flexibility services will be critical in achieving the ambitious targets set for 2035. Any delays in consumer engagement could undermine market participation and slow the uptake of flexibility services.

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

A10. equiwatt believes that asset visibility is critical to the effective operation of flexibility markets and the broader energy transition. To improve asset visibility, several existing and new policy levers could be deployed:

#### 1. Mandatory Registration Requirements

The registration of small-scale assets needs to be streamlined, and mandatory requirements must be enforced to ensure that all distributed assets are registered:

- **Modification to the GB Distribution Code and EREC 98:** The current voluntary nature of notifying DNOs for certain small-scale assets should be replaced by mandatory requirements. This could include updating the code to cover all small-scale assets and requiring comprehensive record-keeping by DNOs.
- **IET Wiring Regulations (BS7671) Amendment:** This amendment could make the installation of small-scale energy assets notifiable work, and further require that the completion of electrical compliance certificates involves data sharing with DNOs and other relevant bodies.
- **Changes to Building Regulations:** Updates to Approved Document P (electrical safety) could include domestic energy assets in the scope of notifiable work, ensuring that asset data reaches DNOs and other relevant entities.

#### 2. Policy to Simplify and Incentivize Registration

- **Incentives for Installers and Consumers:** Offering incentives for installers to register assets or implementing penalties for non-registration could drive up registration rates. Similarly, consumers could be incentivized to ensure their assets are properly registered by offering lower energy bills or enhanced service provisions.

- **Automation of Registration:** Building on innovations like **Automatic Asset Registration (AAR)** could be encouraged through policy. By automating data collection at the point of installation, the administrative burden on installers would be reduced and real-time data collection would improve accuracy.

### 3. Digital and Data Policy Alignment

- **Coordination with Energy Digitalisation Strategy (EDS):** Aligning asset visibility policies with the goals of the EDS is critical. Creating a central repository for asset data, such as the **Central Asset Register (CAR)**, would enhance asset visibility and support the broader aims of flexibility markets.

### 4. Enforcement and Monitoring

- **Regulatory Oversight:** Government bodies, including Ofgem, could enforce compliance and oversee asset visibility obligations, ensuring that policies are being effectively implemented and monitored.

By leveraging a combination of technical solutions and regulatory policy, we believe asset visibility can be significantly improved, paving the way for better system planning, flexibility services, and overall market efficiency.

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

A11. Equiwatt recommends the following use cases be prioritized, as they offer the most immediate and broad-reaching benefits:

### 1. Support for Flexibility Markets

- Asset participation in flexibility markets should be a top priority. Enabling assets like EVs, heat pumps, and battery storage to seamlessly register and participate in flexibility markets will ensure that demand-side flexibility can be fully utilized. This will enhance system stability, reduce peak demand pressures, and ultimately lead to a more efficient and decarbonized grid.

### 2. Enhanced DNO/DSO Planning and Network Management

- Improved network planning is crucial for DNOs/DSOs as the volume of distributed energy resources (DERs) increases. Asset visibility allows for a better understanding of where assets are connected, their capacities, and their operational profiles, which will support efficient system operations and prevent bottlenecks in the distribution network.

### 3. Consumer Empowerment

- Asset visibility should facilitate consumer access to flexibility service providers (FSPs), allowing them to easily opt in or out of services or switch between FSPs. This will

increase consumer participation in demand flexibility and ensure that the benefits of decarbonization reach households and small businesses.

#### **4. Empowering Innovation and New Business Models**

- Innovators could use asset data to develop new business models, services, and applications that further optimize the energy system. Whether it's developing predictive maintenance tools or smart grid applications, ensuring access to asset data could open up new revenue streams and operational efficiencies.

#### **5. Real-Time System Balancing**

- Asset visibility can provide system operators with real-time insights into asset status, location, and operational capacity, improving both short- and long-term decision-making for system balancing, as well as supporting new services such as dynamic load management or real-time grid balancing.

By focusing on these use cases, asset visibility can enhance the functionality and efficiency of the energy system while enabling consumer choice and innovation.

#### **Q12. What costs, benefits or factors should be considered in a Cost-Benefit Analysis for asset registration solutions?**

A12. When performing a Cost-Benefit Analysis (CBA) for asset registration solutions, several key factors should be considered:

##### **a) Time and Resources for Current Registration Processes**

- The administrative burden on installers to comply with EREC G98 and G99 processes, even with improvements like ENA's Connect Direct, can be significant. Understanding the time, effort, and resources currently required to complete these processes is critical to benchmarking any improvements.

##### **b) Duplicative Registration Processes**

- The **current rate of duplicative processes** should be measured, particularly with assets that require both MCS certification and network registration. Streamlining these processes through common platforms or data-sharing protocols could reduce costs and administrative friction.

##### **c) Additional Data Requirements**

- To enable the full benefits of asset visibility, it may be necessary to register more data than is currently required. For example, collecting dynamic data (real-time operational data) in addition to static data (like asset type and capacity) could enhance system planning and flexibility services.

#### **d) Costs of Establishing and Maintaining an Asset Register**

- Setting up and maintaining a centralized asset register, such as the proposed CAR, will incur both upfront and ongoing costs. It's essential to assess the scalability, data security, and integration requirements for such a system, ensuring that costs are proportional to the benefits.

#### **e) Accessing Asset Data**

- There needs to be a process for determining who can access asset data and under what circumstances. Privacy concerns, data security, and the commercial sensitivities of certain asset data must be carefully managed.

#### **f) Essential Asset Registration Requirements**

- The core data points needed to enable the benefit cases should be clearly defined. Ensuring that installers can easily capture the required data (such as asset type, location, and capacity) at installation will reduce friction in the registration process and increase compliance.

By addressing these costs and benefits, a CBA will provide a clearer picture of the most effective and efficient way to improve asset visibility and registration processes, ensuring maximum value for both consumers and the energy system as a whole.