



Flexibility Market Asset Registration Consultation GreenSync

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Introduction

GreenSync thanks Ofgem for the opportunity to respond to this consultation on 'Flexibility Market Asset Registration,' as published on 29 July 2024.

In recent years, GreenSync has committed its resources and intellectual property to supporting the transition to Net Zero, and remains dedicated to this goal moving forward. We believe that asset registration is a critical first step in both enhancing asset visibility and unlocking their potential for efficient and effective participation in flexibility markets. This process is essential for realising the full potential of the millions of low-carbon technology (LCT) assets set to be deployed across Great Britain.

As highlighted in the consultation, 'Flexibility is a necessity for our future energy system, not a nice to have'. GreenSync strongly advocates for accelerating the developments necessary to achieve system-wide asset registration, thus 'ending the era of flying blind, and ensuring visibility and transparency' for all LCT assets, including those that can and those that cannot provide flexibility but have an overall impact on the future energy system.

Please reach out to igor.dremelj@greensync.com.au in the first instance should you wish to discuss our response.

With kind regards,



Igor Dremelj

Head of GreenSync Europe

Consultation questions

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

Yes, GreenSync agrees that policy intervention is the most meaningful way to deliver common Flexibility Market Asset Registration.

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?

Yes, GreenSync agrees that for other FDI outcomes policy intervention is not needed at this stage.

One thing to consider is speed and timing – with immediate policy intervention to stand up the common asset register, commercial solutions addressing other FDI outcomes should adopt to or be based on the common asset register. However, if standing up of the common asset register is to be slower (due to any reason) than the progress with other commercial solutions addressing other FDI outcomes, then there is a possibility that commercial solutions might build own solutions around asset registration, specific to the group of LCT, geography, flexibility market, etc.

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?

GreenSync believes that the most important policies, industry developments and innovation programmes have been identified in the Consultation.

Through the work done in NZIP AAR Programme, GreenSync believes there is a significant convergence between AAR/CAR and FMAR, and, as also proposed in the SUC design proposal (shared with Ofgem on January 19), should essentially be one and the same application. This would not only result in lower cost to implement but also concise and unified policies on asset visibility and flexibility market asset registration.

Although GreenSync welcomes Consumer Consent solution, at the same time GreenSync believes Consumer Consent solution decision and implementation should not block or delay development of FMAR; as shown in AAR Programme customer consents can be collected and managed with asset registration to start with, simplifying and unifying the consent collection and management by integrating with the Consumer Consent solution, once it is implemented and deployed.

One aspect perhaps worth considering and not referred to in the Consultation, is the Local Authority Energy Planning (LAEP) .

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

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anything else be considered?

Yes, GreenSync agrees with the scope proposed for markets, assets, and data. GreenSync is of opinion that if dynamic data, such as asset's telemetry or user settings, is needed, this is possible to be delivered by the digital infrastructure such as AAR/CAR and/or FMAR if remote connectivity of assets to be registered is guaranteed; a point to be considered in the policy.

Just to note, some of the flexibility service and technical asset data listed in the Consultation might require integrations with systems beyond only OEM services, Installation Work Order Management systems or other systems dealing with asset network connection notifications (e.g. Connect Direct). Although this does not represent a technical issue, it should be considered in the policy.

When referring to 'small-scale domestic and small business assets', there might be other types of assets, that can offer flexibility but might not be considered LCT, such as larger electrical loads. Based on the Consultation, even though 'electric vehicles, heat pumps, and home battery storage systems' are specifically mentioned, it is our understanding that FMAR should not exclude the registration of such assets.

Attention is needed also with 'electric vehicles' (EV). While registering fixed assets like EV chargers is relatively straightforward, the same may not necessarily apply to the EV itself.

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

Yes, GreenSync agrees with the functional outcomes.

Functional outcome	Comments
1. Single master data record	GreenSync agrees with all points listed in narrative, noting that it is a paramount for such a 'single source of truth' that the data is not only kept permanently accurate (to the best ability of the technology and processes put in place) but also, where and when possible, for the data to be validated. Please refer to AAR Programme for further information on data validation possibilities.
2. Unique ID	Agreed. Unique ID for the created FMAR resource (registered asset) is essential as are the processes for de-duplication of asset data records or resource creations.

Functional outcome	Comments
	Please refer to AAR Programme for further information on how Unique IDs can be generated and how de-duplications can be managed.
3. Data quality	<p>Agreed. It is essential for the data to be trusted and validated whenever possible. The data records should be marked accordingly depending on if data elements were able to be verified or not.</p> <p>Please refer to AAR Programme for further information on data verification possibilities.</p>
4. Appropriate collection points	<p>Agreed. The data should be collected no later than at the point of market entry. However, there could be data points that are collected beforehand e.g. at notification (i.e. through Connect Direct), at installation, etc. The system should allow for the data to be collected at different points of an asset lifetime, adding the additional data to the master data record of the asset.</p> <p>Please refer to AAR Programme for further information on patching of asset data.</p> <p>Please note that it is imperative for a single master data record system of this capability to implement a set of data traceability processes to enable audits, reconciliations, etc.</p>
5. Common data access	Agreed.
6. Data exchange mechanisms	Agreed.
7. User experience	Agreed. If or where GUI's are to be used, the UX design is to be done, where possible,

Functional outcome	Comments
	specific to the user group.
8. Consumer consent framework	Agreed.
9. Integration with wider systems	Agreed.

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

Yes, GreenSync agrees with the design principles as listed out in the Consultation.

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?

Yes, GreenSync agrees with the enablers and design activities needed and for the Market Facilitator to coordinate Working Groups for them. However, GreenSync believes that implementation of an asset registration system that can deliver the and satisfy the FMAR requirements and principles set out in the Consultation should not be delayed by activities such as 'the ESO and DSOs first needing to align their flexibility market processes'. Whilst we are certain there will be probably amendments and new data requests coming from the alignments and the Working Groups led by the Market Facilitator, we are with the work being done within AAR Programme, convinced the fundamental asset registration processes can be implemented in parallel i.e. not necessarily waiting for the ESO-DSO market alignment.

We agree that the implementation of FMAR should align with the DSI framework; however, we believe the two implementations should remain independent to avoid the risk of FMAR timeline slippage.

GreenSync will provide its opinion to the Governance of a Data Sharing Infrastructure consultation, in which GreenSync proposes for the MVPs to include multiple applications i.e. next to Outage Planning also Asset Registration. This could result in GreenSync helping develop a data preparation node for the asset registration data based on the work done in the AAR Programme.

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?

GreenSync believes there are many synergies between the AAR Programme and FMAR Consultation, including the assessment of the proposed delivery body options.

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Although we believe the Market Facilitator option is possible, we feel an implementation with an Entity with formal enduring role might be faster and therefore overall, more cost effective.

This said, we agree other options listed in Consultation are less likely to deliver the desired policy outcomes.

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

GreenSync agrees the with the timelines proposed. It would be beneficial if the timelines could be more concrete with defined core milestones for the delivery body.

We are of the opinion that an FMAR could be, based on AAR and FMU, built already in 2025/26 and then gradually, once the DSI is ready, through the necessary means (Preparation node linked to the DSI Sharing mechanism and FMAR signed up to the DSI Trust framework) connected to the DSI, should that be a viable option for Ofgem. In this way the market could start benefiting from FMAR potentially sooner (Please note, as per Governance of a Data Sharing Infrastructure Consultation, Figure 2, Launch for regulated networks is foreseen mid 2028 and General availability only towards end of 2029).

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

- Amend the distribution code to strengthen data collection on installed LCT assets, including modifications to require installers to notify the DNOs of a small-scale asset installation
- Consider changes to DNO Licence Obligations for the DNOs to maintain a comprehensive record of installed assets and provide a unified (data) service to transfer the information to the eligible market participants
- Explore how asset management providers could supply data on relevant LCT's to the asset register
- Ensure that any government or regulatory financial incentive(s) (current or future) that support LCT's requires participants to register their devices with the asset register to be eligible
- Consider amendment to the Retail Energy Code (REC) or Smart Energy Code (SEC) to ensure parties capture data about LCT assets
- Encourage central asset register uptake by embedding it into forthcoming initiatives such as the Clean Heat Market Mechanism and other

Please note GreenSync has, within AAR Programme, developed a full regulatory and policy assessment on asset registration and provided the report on July 20, 2024.

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

- Network planning and coordination – Visibility of energy generation and increased

energy consumption is important to help monitor and balance energy networks. Both generation surplus from distributed energy resources like rooftop solar and deficits from increased consumption from electrification of process such as EV charging, create challenges for load balancing. Existing data on connected assets and energy use is, if available, at best fragmented across different energy stakeholders which limits our overall picture of assets and energy use. This will become increasingly problematic as increased uptake in domestic LCTs leads to higher distribution of energy assets (both production and consumption) which will have a bigger impact on load balancing.

- **Enabling Flexibility** – Smart and flexible energy systems are vital if the UK is to reach Net Zero carbon emissions. As the proportion of intermittent renewable generation and low carbon technologies such as electric vehicles and heat pumps increases, flexibility driven by digitalisation will support grid balancing and help avoid network constraints and blackouts.
- **Monitoring and Compliance** – Currently assets are registered through static data entry at the point of installation, if at all. This limits the credibility of existing asset information and its ability to be used as a verification tool to confirm the asset is installed and owned by the asset owner. A more dynamic approach to asset monitoring helps prevent fraudulent activity where asset owners receive financial benefits for installing and owning LCTs. Verification will likely be required for FSPs to demonstrate their portfolio of assets are credible and authenticate market participants/asset owners. Compliance checks could also be used for government schemes, such as the Boiler Upgrade scheme to ensure device registration, monitor the success of the scheme and prevent fraudulent activity.
- **Innovation Opportunities** – The availability of credible asset information will be essential to the functioning of a Net Zero energy system. In addition to supporting system operators, FSPs and providing essential monitoring information, the availability of asset data could unlock new service offerings and innovations that are yet to be developed.

Q12. What costs, benefits or factors should be considered in a Cost-Benefit Analysis for asset registration solutions? Consideration should be given to:

- a) the time (in minutes) and resources required to complete current EREC G98, EREC G99 and MCS asset registrations (accounting for any recent process improvements, including ENA's Connect Direct)**
- b) the current rate of duplicative registration processes for assets (e.g. networks and MCS)**
- c) whether any additional asset data (beyond that of the current registration processes) needs to be registered to enable the benefit cases to be realised**
- d) the costs to establish and maintain a register of assets**
- e) the process required to assess suitability in accessing asset data**

f) what the essential asset registration requirements are to enable the benefit cases to be realised

GreenSync believes the asset registration should be done, and can be achieved, at minimal cost. To do so however a high degree of automation is required, starting with digitalisation of processes, open APIs and integrations. The AAR/CAR API has been developed to process thousands of registration requests per minute, the integrations with OEMs enable automatic verification (or completion) of data submitted with registration request, automated verification and reconciliation of MPAN against REL/CSS, are just a few examples on how to reduce cost of registration through automation.

Automated asset registration will result in overall lower costs needed to complete registrations, it will streamline the processes and will reduce the administrative burden, such as triage of failed registrations, data inconsistencies and duplicate entries.

Improved data quality by verifying and providing actual verified asset data (compared to e.g. surveyed data inputs only) with a single-source asset register, provides significant benefit to all market participants. For example, verification will likely be required for FSPs to demonstrate their portfolio of assets are credible and authenticate market participants/asset owners, compliance checks could also be used for government schemes, such as the Boiler Upgrade scheme to ensure device registration, monitor the success of the scheme and prevent fraudulent activity.

The cost to establish and maintain a register of assets will strongly depend on technology choices made to implement such a register. A centralised approach to the asset register (irrespective of centralised or decentralised technology used to implement it) is recommended not only to ensure interoperable, consistent asset data can be made available across the UK to support a wide range of use cases in the shortest possible time but also at the lowest cost.

With the AAR/CAR approach, as demonstrated on Sept. 11, and existing processes in place (accounting for also recent process improvements such as ENA's Connect Direct), the time needed to trigger a registration request is negligible and can be fully automated through integrations. Processing of the registration and validation of data runs therefore in parallel and asynchronous to the other processes such as Gxx completion or MCS certification.

Implementing the asset visibility with this approach offer the opportunity to seamlessly extend the AAR/CAR to FMAR functionality. This would be not only a very cost effective but also the fastest implementation delivering both benefits of the full asset visibility and asset flexibility availability.