

Flexibility Market Asset Registration Consultation

National Grid plc response to Ofgem's consultation

23rd September 2024

About National Grid

National Grid Group's operations in the UK include: National Grid Electricity Transmission (NGET), which owns the high voltage transmission system in England and Wales; National Grid Electricity Distribution (NGED), which owns and operates electricity distribution networks in the Midlands, the South West and Wales; National Grid Ventures (NGV), which owns and operates energy businesses in competitive markets, including sub-sea electricity interconnectors.

This response consists of two sections:

- **Section 1:** Executive Summary
- **Section 2:** Response to specific consultation questions

Executive Summary

National Grid welcomes the opportunity to engage in this consultation about Flexibility Market Asset Registration. Overall, we support the work Ofgem proposes in this consultation. We can see the value in creating a register of flexible assets to improve the experience of Flexibility Service Providers bidding into multiple markets, and to facilitate co-ordination between system operators.

We have experience in the area through our work creating the Market Gateway system, our in-house system in which organisations can register to offer flexibility, sign contractual documents, register assets, and submit trade offers. In this consultation response, we offer lessons learnt based on our experience as well as suggested areas of focus. We would be happy to share further through industry workshops and 1:1 targeted meetings as needed

Two areas of learning to highlight here are the issues of consent and asset duplication. The system needs to have some view of the relationship between the flexibility service provider (FSP) and the asset owner to ensure that customers are not enrolled for flexibility without their knowledge, and to determine which FSP can use that asset to bid into our flex services. To address asset duplication, there needs to be consensus about what constitutes an asset. We have overcome this when designing the Market Gateway by establishing rules about metering location, network exit point, and organisation. We have seen multiple FSPs registering what appears to be the same asset. Flexibility market asset registration will need a reliable way of resolving these claims, and we believe that consumer consent would be the best way to settle this.

This register's implementation needs consideration for the complexity of integrating assets present in existing registers. For example, NGED has nearly 80,000 assets accepted on the Market Gateway, which will need migrating to this new register. Different registers have devised bespoke data structures, so there will be considerable work to resolve differences between them.

The creation of this register should be viewed as a priority to gain the most value otherwise many more assets will need to register in the fragmented way that exists currently. Waiting until the full deployment of the market facilitator may waste a good opportunity to support the growing number of assets participating in flexibility markets. For example, by 2028, we forecast an additional 1.1 million EVs on NGED's network, which if flexibility enrollment continues at the same rate, would result in an additional 230,000 EVs on the Market Gateway asset register. We support the Energy Networks Association continuing to work on aligning the industry in preparation for this register, building on successful work to align the asset qualification process and the way that DSOs procure.

Response to specific questions

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

Yes, we agree that policy intervention is needed to deliver common Flexibility Market Asset Registration. We do not believe it will happen organically in acceptable timeframes.

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?

Yes, we agree that the proposed policy intervention is what is required at this stage. Other important parts of the Flexibility Digital Infrastructure policy will be able to follow on naturally from a common asset register, and existing efforts to align on procurement and ESO/DSO co-ordination will be able to make more progress once the asset register exists. Industry can use the Energy Networks Association as a mechanism for delivering alignment.

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 want to highlight there are many other registers that exist which this system could interface with to cross reference and improve data quality. For example, the Embedded Capacity Register or national systems like the Meter Point Registration System.

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

We broadly agree with the scope proposed for both markets and assets and have some comments regarding the data in scope based on our experience with developing Market Gateway. We have found that dealing with updates to assets and conflicts between FSPs will require specific focus in the design stage. We also propose leaving connection data out of scope for the first iteration at least as this would add little benefit but require additional complication.

Markets

Regarding the markets in scope, we agree that those proposed are important to focus on, but there ought to be consideration to aligning a future iteration with the wholesale market and the standard required to enter assets into the Applicable Balancing Services Volume Data (ABSVD).

Assets

Regarding assets in scope, National Grid believes that the most value from this register comes from the asset types with high penetration but low visibility, namely heat pumps and electric vehicle charge Points. The primary use case of the Flexibility Market Asset Registration system should be built with a focus on these assets. That said, if other asset types or assets over 1 MW can be registered, then we see value in including them. If they can be incorporated with limited impact on the cost and development time of the system, then it would reduce the number of endpoints that our Market Gateway system must interface with to obtain a record of flexible assets and would simplify the process for FSPs.

Data

Regarding the data in scope, we mostly agree with the proposal, however we believe the structure is more complicated than that set out. National Grid views the data in points 3.17 and 3.18 as belonging to four distinct parts of the register (shown in Figure 1):

- The first would be a register of FSPs containing information about organisations that are participating in the trades.
- The second would be an asset register that would contain only information about the assets.
- The third table would link the above tables together by listing which FSPs have control over which asset.

- The fourth table would contain information about the connection status and be released in a further iteration, as this register should be designed to focus on small assets that are unlikely to be affected by flexible/curtailed connections.

Asset groupings (shown as “Flexible Unit” on the diagram) would not be contained on the register. Asset groupings will be bespoke to the market they are entering, so they should be stored by each system operator.

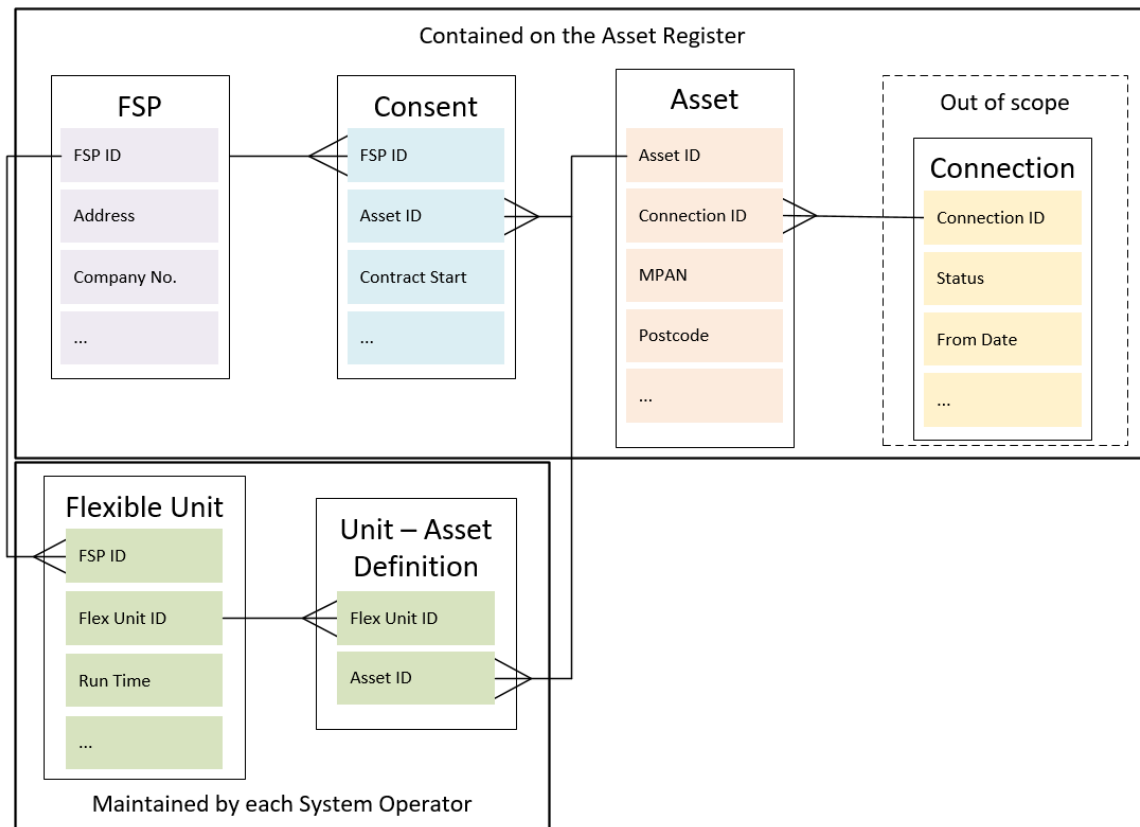


Figure 1: The relationship between FSP, Asset, and consent tables. The asset details should be established separately to FSPs claiming control over assets, and there could be many claims over the same asset that the register must resolve. Asset groupings should be specific to the market and stored by the system operator.

There could be multiple FSPs claiming an asset and resolving this is a key aim of the market asset register. The proposed structure could be used for this and process inevitable changes in asset/FSP association.

Some of the data listed as “Static” in the consultation will not be static. The register will need to have an update process from its launch to handle changes in asset information. The assets’ flexibility capacity cannot be stored as a static field, as it will depend on the time of day, season, the groupings of assets, or what baseline has been assigned.

Customer consent is important here too, and as a system operator, we would like to see who the asset owner has given consent to participate in flexibility services on their behalf.

As part of the design phase, the industry must agree on which fields will be required to register an asset. National Grid’s suggestion is that there are a set of core fields required, and then other fields populated specific to certain markets that get recorded when they are required.

We would be happy to share more about our experience in this area with further bilateral communication.

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

We agree with the functional outcomes and we are happy to offer advice from our experience of creating the Market Gateway. Key areas of focus are on how the Flexibility Market Asset Register (FMAR) will develop a single master data record that can cope with multiple FSPs entering the same information whilst also coping with asset updates.

Single Master Data Record

It is essential that all parties involved store the information in an interoperable manner, to ensure clarity that all parties are referring to assets in a homogenous way. The single master data record must have a sole party responsible for conflict resolution between duplication of assets or multiple claims over an asset.

Unique ID

Particular attention needs to be paid to what constitutes an asset, and therefore what is assigned a unique ID. A heat pump and EV charge point at a single address use the same Meter Point Administration Number (MPAN) and might use the same metering, which would risk double counting the flexibility delivered if they are treated as separate assets. However, if using asset metering they can be operated independently.

In the Market Gateway System, National Grid imposes the following rules (see figure 2) as to what constitutes an asset:

- Located at one site (defined as having one network exit point)
- Has one metering location
- Is operated by a single organisation

A clear definition of an asset is essential to delivering a robust register.

Multiple flexible loads at one site can share metering and be treated as a single asset

Flexible loads can have asset-level metering and be treated as separate assets

Different organisations cannot share the same metering point without double counting

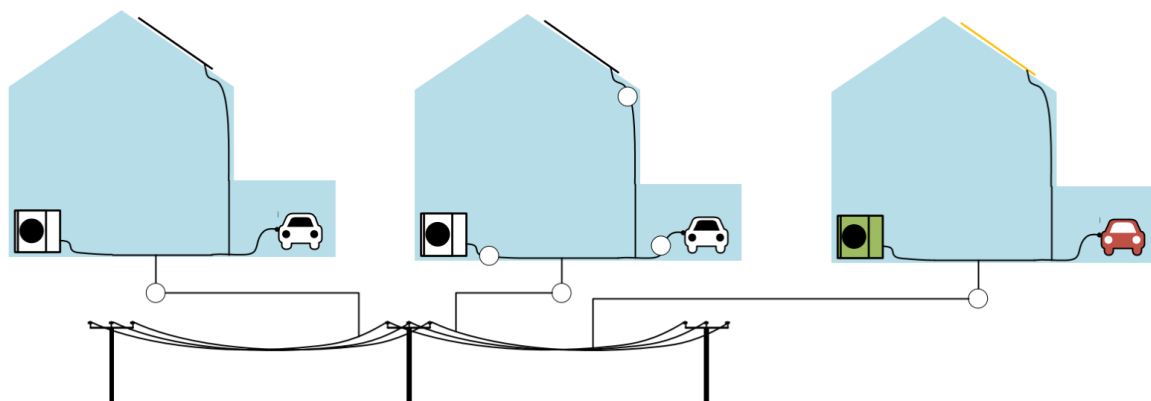


Figure 2: The rules used to define a flexible asset from many flexible loads

Common data access & Data Exchange Mechanisms

Ofgem must consider the tradeoff between asset owners having the flexibility of different user experiences when interacting with the system, and the increased complexity of the system that would come with having multiple ways of interacting with it.

User Experience

We have found that having a test area where FSPs can test their API integration is useful to avoid registering assets in error.

Consumer consent framework

The consumer consent framework must be able to process multiple FSPs claiming access to the same assets, and deal with the consumer changing between FSPs. This is in addition to having the consent to share relevant personal information between parties, for example the MPAN.

Integration with wider systems

“Just once” registration might be prohibitive if different flexibility offerings require different pieces of data. It would be better to have a set of core fields common to all flexibility offerings, with additional fields that may be used in certain markets.

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

We agree with the design principles and have some additional things to consider for the “Security, Resilience and Privacy” principle.

Our view is that the Flexibility Market Asset Register would be a tool for market coordination, and not an operational tool. This is an important distinction when it comes to setting the system’s security and resilience requirements. If the asset groupings are extracted from the central register and held by the system operators, then this would negate the need for the central register to be an operational-grade system.

National Grid has observed that FSPs have relied on Market Gateway to keep track of which assets needed to be dispatched, despite this being neither the intended purpose of our platform nor an authorised activity. The result is that the ability of an FSP to meet their flexibility contract is jeopardized when we need to take down Market Gateway for maintenance. We suggest, therefore, that the FMAR is constructed in way that mitigates this risk.

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 design activities required and believe that the ENA open networks can start working on these in advance of the market facilitator launch. For example, aligning ESO and DSO procurement process is ongoing.

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?

National Grid’s preferred option is for the Market Facilitator to be the delivery body for this work (Option 4). There is value in having the same body designing and building the system results in a single body accountable for and owning the system.

We do not think a BAU or commercial solution (option 1) is viable. Whilst there are promising developments emerging, we think this duplication of systems or being “locked in” to a certain system.

Options 2 and 3 would not result in the best solution, as it would be difficult to neutrally establish consensus, and it is unlikely that the registers that DSOs and the ESO already have will easily be able to be opened to other parties.

Regarding option 5, National Grid does not see value in creating a new entity, as this will be slower and add more complexity to an already complicated area.

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

National Grid believes the wide band of time for deployment would create uncertainty with our investment in our own asset registration systems. If the deployment is as late as 2028, then there is a risk that FSPs would have already had to register hundreds of thousands of assets into these separate platforms, which would then make the harmonisation task more difficult too. We think the

target should be for deployment at the beginning of the targeted band (late 2025), which would be enabled by ENA Open Networks continuing to work on alignment of procurement methods between ESO and DSOs and the other enablers identified in this consultation.

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

No comment.

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

No comment.

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

No comment