Use Cases for SFE

October - December 2022

How to use this document

- So far an initial set of 38 **use cases** has been developed based on stakeholder engagement. Ofgem has decided that six of them are out of scope. The list will continue to evolve as the SFE concepts develops

- **Use cases** are a way to use a system to achieve a particular goal. These **define the 'what'** of the SFE. *(See slide 3 for a full use case definition)*

- This is a **working document**, use cases are **evolving/being added regularly** in response to stakeholder or Ofgem feedback.

- Out of scope use cases are housed at the back of this document.

Use cases are a way to use a system to achieve a particular goal

Each use case has:

- A **pain point** it addresses
- The **goal** – the successful outcome
- The **user(s)** - users interacting with the process
- The **description** – ways in which a user can achieve the goal, including unambiguous functionality and features
- The **potential benefits** – value that this use case can bring
- **Questions** – addressing the 'how' we need to address throughout this engagement
- **Barriers / Dependencies** to the use case

For high priority use cases, they will additionally have:

- The **steps** – steps taken to reach the goal, including trigger points and preconditions.

Use Cases

- The following use cases are **listed in order of which they were identified, not priority order.**
- This is a working document, so less mature and newer use cases will have less content in the ‘Description’ vs the ‘Questions to Address’ sections.

32 Current Use Cases

Use Case ID	Title
1	Maintain Taxonomy
2	User Registration
3	Asset Registration
4	Product Registration
5	Rule Enablement
6	Reporting on prices and volumes for market trends
7	External information provision (market rules)
8	Asset value based on historic data
9	Understand Eligibility for Prequalification
10	Reporting on trade, dispatch and settlement for asset performance
11	Market Conflict Identification
~~12~~	~~Visualisation of Assets - De-prioritised~~
13	Market testing of Products
14	Streamlining Contracts across markets and products
15	Centralised Pre-Qualification
16	Visibility of Current & Future Flexibility Needs for all Networks
~~17~~	~~Fully Informing Consumers - De-prioritised~~
18	Transparency of DER Positions & Actions
~~19~~	~~Grid Supply Point Visibility for DER Assets - De-prioritised~~
20	Probabilistic Products enabling Small Assets
21	Facilitate Small Asset Participation
22	SO Disclosure of rational behind asset dispatch
~~23~~	~~Ability for SO to veto another SO planned dispatch -De-prioritised~~
~~24~~	~~Transparency of Proposed and Planned Assets - Deprioritised~~
25	Secondary Market
~~26~~	~~Transparency of assets below 3.5kWh~~
27	Bid strategy support - 3rd party
28	Asset value prediction - 3rd party
29	Change Management
30	Streamlining user rating
31	Risk Calculation
32	Settlement
33	Dispatch
34	Optimisation across all markets and voltage levels
35	Auctions
36	Simple market participant search
37	Market monitoring
38	Impartial route to recourse in case of dispute
F1	Feature

Use Case 1 – Maintain the Taxonomy

Pain Point: Once a taxonomy is established it will get changed from time to time and the SFE platform needs to be able to deal with that.

Goals:	Users Involved:
This Use Case enables the SFE platform admin to deal with changes to the industry wide agreed taxonomy.	SFE Admin

Description:
There needs to be a way for the SFE admin user to make changes to the database structure capturing the taxonomy. (change management process) eg adding a category to asset types. The taxonomy should ideally cover asset, product and participant data. Potentially also market rules and trade/dispatch activities.

Use Case 1 – Maintain the Taxonomy

Pain Point: A taxonomy is needed because markets are siloed, and information/products are not easily comparable across markets - leading to a gap in productivity and trade. Once a taxonomy is established it will get changed from time to time and the SFE needs to be able to deal with that.

How to Implement

- Via UI
- Changes done though backend by adding/amending database entries

Outcomes

- Enables to manage updates to the agreed taxonomy, ideally trickling down into the database structure and UI

Barriers / Dependencies

- Industry wide effort to align and agree on a taxonomy. This will allow to categorise, describe and harmonise products, assets and participants across multiple markets for comparison.
- Options:

1. Centralised taxonomy which all market participants adhere to
2. Inter-operable taxonomy between the SFE and market platforms - SFE harmonises incoming data to be more comparable for SFE UCs and processes, and then 'deharmonises' that data back.

Questions to Address:

- Who owns the taxonomy and where does it live?
- Taxonomy or ontology?

Additional Notes

Detailing the content of the taxonomy = out of scope

Data Source:

- To be confirmed once the industry agrees where it lives and who governs it

Data Groups:

- Assets
- Products
- Market participants

APIs:

- Requires further investigation

Use Case 2 – User Registration

Pain Point: This is standard user registration.

Goals:	Users Involved:
Registration of users onto the exchange.	All

Description:
• User provides detailed contact information, registered business address, role (dependent on taxonomy which roles we offer), password • email confirmation to complete account setup • Roles could be market operator, aggregator, government body, FSP, investor and others • Visibility of functionality and data depends on the role chosen • We might want to validate that they are a real person (identification) • We need to enable colleagues within the same organisation and/or department to see the same thing, but we want the individual to be responsible for their action. Maybe managed be the organisation that owns the SFE -> Admin that was validated, that can add people to access certain functions?

Use Case 2 – User Registration

Pain Point: This is standard user registration.

Questions to Address:

- How do we verify that the user is actually the role that they claim to be?
- Which known technologies are there that could deliver this?

Outcomes

- User can use all functionality available for their role on the SFE

How to Implement

Options
1) Normal user registration for our platform
2) single sign on for multiple platforms (eg prequal, trading, dispatch, settlement platforms)

Barriers / Dependencies

Additional Notes

Data Source:

- Requires further investigation

Data Groups:

- Users

APIs:

- Requires further investigation

Use Case 3 – Asset Registration

Pain Point: Asset registration is repeated every time an FSP wants an asset to partake in a new market/product. This entails repetition of data entry, in different formats and taxonomies, this creates a tremendous admin burden.

Goals:

FSP/Aggregator register assets ‘once’, by providing detailed information (such as asset type, location, asset size, connection point) common to all products/markets. Facilitates and speeds up processes that require this data (e.g. pre-qualification into different products/markets)

Users Involved:

FSPs, Aggregators, Market operators

Description:

Paths:

1. User registers a planned or proposed asset
2. User registers an existing asset by:
    a. Evolve a previously registered planned or proposed asset to an existing one, and adding additional information (which is now available as the asset is now physical, creates a lifecycle for the asset)
    b. Registering an existing asset from scratch

Features/Functionality:

- Displays for which markets/products the asset is prequalified for
- Where data is required from the DNO/DSO for registration (e.g. grid supply point), SFE acts and an intermediary between the DNO/DSO and provider.
- Allow for assets to change the owner
- If we go for MPAN style, there would potentially be multiple assets with the same MPAN. Planned assets don’t have an MPAN yet!
- Should include who is owning it and who is controlling the asset
- Covers assets above a certain threshold eg 3,5kW

Outcomes

- FSPs will have a lower entry barrier once they registered for the first market.
- Enabler of other use cases: Centralise Pre-Qualifiaction (UC 15), DER Positions (UC 18), Rule Enablement (UC 5), Asset Value and others

Use Case 3 – Asset Registration

Pain Point: Asset registration is repeated every time a flex provider wants an asset to partake in a new market/product. This entails repetition of data entry, in different formats and taxonomies, this creates a tremendous admin burden.

How to Implement

Option 1: Store data in platform in a standard form a) Via a web UI, b) via an API (this requires the asset owner to have a standard model), or c) [not shown] the asset owner could have a real time transformation mechanism that replicates any changes made to asset data via an API to a central store (seems unlikely).

Option 2: Access data via an API on an as-needed basis. This requires the asset owner to either a) have data in a standard form (which could be translated by humans or machines), or b) have a real time translation facility. Note that there is no difference between a) and b) from the platform's perspective.

Option 3: Access data via distributed data access mechanism

Option 4: Retrieve asset data from an external repository such as the Central Asset Register (CAR) initiative. This could replicate the patterns of options 1, 2 & 3, only one option is shown.

Barriers / Dependencies

- Market / product owners need to agree on a common set of registration details, to an appropriate extent (policy dependency).
- Enabled by Taxonomy (UC 1)

Questions to Address:

- How does this work for aggregators vs flex providers?
- Linkage/dependency on the other asset registers that exist?
- Do we want to restrict a single asset only having a single FSP/Aggregator?
- What info is included in the AR depends on what we want to use it for! That needs to be defined first? (eg market coordination or product registration)
- What is an appropriate level of aggregation?

Additional Notes

Data Source:

- Depends on implementation
- BEIS AAR
- Piclo AR
- NG SMP
- Elektralink
- …

Data Groups:

- Asset data

APIs:

Depends on implementation option

Use Case 4 – Product Registration

Pain Point: This Use case is an enabler for other use cases. (see UC Dependency map) Examples are prequalification or asset value calculation.

Goals:	Users Involved:
Products are searchable (in one place) and comparable (taxonomy). Assets and Rules can be linked to a product.	ESO/TSO, DNO/DSOs

Description:	Barriers / Dependencies
• SO defines products using an agreed, industry wide taxonomy / ontology framework. • Product description includes how the service works, rules around combining it with other products, requirements, onboarding process, information on how to get paid and has a link to key documents • Ability for Products to change or retire	

Use Case 4 – Product Registration

Pain Point: This Use case is an enabler for other use cases. (see UC Dependency map) Examples are prequalification or asset value calculation

How to Implement

Option 1: Store data in platform in a standard form a) Via a web UI, b) via an API (this requires the product owner to have a standard model), or c) the product owner could have a real time transformation mechanism that replicates any changes made to asset data via an API to a central store (seems unlikely).

Option 2: Access data via an API on an as-needed basis. This requires the product owner to either a) have data in a standard form (which could be translated by humans or machines), or b) have a real time translation facility.

Option 3: Access data via distributed data access mechanism

Option 4: Retrieve product data from an external repository. We are not aware of any initiative to develop a flex product repository and have thus not considered this further.

Outcomes

- Enables us to link assets and rules to products, do report filtering, rule enablement, market conflict identification and asset value calculation.

Questions to Address:

- Who is responsible for putting them in and how do we ensure that the products are updated when needed?

Additional Notes

Data Source:

- market operators
- Suppliers for probabilistic products?
- P2P Platform products?

Data Groups:

- Products

APIs:

- Depends on implementation option chosen

Use Case 5 – Rule Enablement

Pain Point: Once markets are coupled more, market participants need an easier way to understand and adhere to the rules around multiple market participation, so they can be followed and enforced.

Goals:	Users Involved:
A rules engine, ensuring adherence to the rules around participation in multiple markets. As market coupling becomes more common, the rule set will be more complicated and users will require more support to be compliant.	All

Description:
• Rules will be applied through all relevant stages, depending on rule definition. (eg prequal, bidding, dispatch) • We need the ability to add/amend rules to the SFE Options: 1. Notification 2. Block action

Use Case 5 – Rule Enablement

Pain Point: Once markets are coupled more, market participants need an easier way to understand and adhere to the rules around multiple market participation, so they can be followed and enforced.

How to Implement

Outcomes

- All market participants trust the rules to be followed and enforced
- Multi-market participation and revenue stacking is enabled – provides security of service, increasing market operator confidence
- Improves commercial viability for participating in flexibility markets

Barriers / Dependencies

- Rules will be defined by 'market / product owners' (i.e. buyers of flex) and regulators
- Needs a single source of truth for assets and their positions

Questions to Address:

- How would this work across new emerging markets (i.e. DNO markets?)
- Confirm assumption on rules pertaining to asset participation in multiple markets being included in the product registration?
- Who adds them to the SFE and is responsible for them being correct?

Additional Notes

Definition and ownership of the rules = out of scope
Currently a theoretical problem, small enough to go unnoticed where it does occur at present.

Data Source:

- Regulator
- market operators

Data Groups:

- Rules

APIs:

- Depends on implementation option chosen

Use Case 6 – Reporting on prices and volumes for market trends

Pain Point: Information on historic prices and volumes broken down by product and asset type/size is scarcely available and not easy to interpret

Goals:	Users Involved:
Provision of information around prices and volumes that were sold, broken down by product and asset type, to support analysts and investors in understanding market trends.	FSPs, Aggregators, Retailer/traders, OEM

Description:
• Provide raw data sets on prices and market volumes broken down by product and asset type to support analysts with identifying market trends. • Includes simple graphs over a selected timeline and average prices for markets for a chosen time span.

Use Case 6 – Reporting on prices and volumes for market trends

Pain Point: Information on historic prices and volumes broken down by product and asset type/size is scarcely available and not easy to interpret

How to Implement

Options
- API
- .csv /.xls download
- both

Outcomes

- Improving market transparency
- Reduced cost of entry to the market
- Improved market liquidity

Barriers / Dependencies

Questions to Address:

- What data is okay to share both legally and ethically?
- Which users will benefit the most from this data transparency?
- How will the provenance be verified and communicated?

Additional Notes

“Not cannibalizing the role of analytics but providing raw data”

Data Source:

Market Platforms e.g.
- Piclo, Electron, Nodes
- SMP
- PAS
- Epex

Data Groups:

- Prices
- Volumes

APIs:

- Requires further investigation

Use Case 7 – Existing Information Provision (Market Rules)

Pain Point: Existing information is disparately provided over several channels, resulting in confusion and potential rule-breaking.
"You have to be well connected in the industry (i.e. through LinkedIn) to be fully aware of all the policy changes"
(Platform Operator)

Goals:	Users Involved:
Provision of information around current market rules and regulations in a single, easy to access location – a 'one stop shop'	All

Description:
Presenting current market rules in a single place to make them easy to find

Use Case 7 – Existing Information Provision (Market Rules)

Pain Point: Existing information is disparately provided over several channels, resulting in confusion and potential rule-breaking.
"You have to be well connected in the industry (i.e. through LinkedIn) to be fully aware of all the policy changes"
(Platform Operator)

How to Implement

Outcomes

- Build and foster user trust
- Reaffirm SFE's place in market
- A convenient and trustworthy, single source of truth for market participants to stay aware of current regulation
- Reduce occurrence of accidental rule-breaking

Barriers / Dependencies

Questions to Address:

- How machine readable does this need to be (i.e. structured data)?
- What is legislation related to product stacking? (policy)
- Is this subject to change? (policy)
- Regulation and Policy is not always clear and often spread across several channels. The biggest benefit would be a simplification of the rules and regulation. Is that in scope?

Additional Notes

Data Source:

- Requires further investigation

Data Groups:

Requires further investigation

APIs:

Requires further investigation

Use Case 8 – Asset Value based on historic data

Pain Point: Data is spread across multiple channels and markets and hard to interpret, making it difficult for FSPs/aggregators/investors to understand performance of similar assets, and therewith the value of their own assets.

Goals:	Users Involved:
Enable sellers of flexibility to get a high-level understanding of asset value per asset type and size, to develop a business case **based on historic data**. Enable confidence in the investor community to improve access to capital for new asset development.	FSP, Aggregator, Investors, SO, Settlement Body

Description:

- Information on how similar (aggregated) assets have performed in the past.
- Displays historical transactions and performance ratings across different markets and products.
- This process can be done even before prequalification and does not require significant amount of asset data from the user. It is more exploratory in nature.

1. User provides info on their specific asset directly in the platform or selects a registered asset
2. They can select how many months/years back they want to see the data
3. They can view in an anonymised way which trades similar assets have won (product specific), how much volume they traded and at what prices and how they performed (if they actually delivered the flex they sold)

Use Case 8 – Asset Value based on historic data

Pain Point: Data is spread across multiple channels and markets and hard to interpret, making it difficult for FSPs/aggregators to understand performance of similar assets, and therewith the value of their own assets.

How to Implement

Outcomes

- Helps users make an informed decision about what assets to choose and what revenue they can expect

Barriers / Dependencies

- Enabled by taxonomy, data collection feature , Asset register (UC3) and Product registration (UC 4)

Questions to Address:

- Would this be broken down to individual anonymized assets or would we show an average value?

Additional Notes

Data Source:

- Market operator
- Regulator
- Asset register
- Market Platforms
- Settlement Body

Data Groups:

- Products
- Rules
- Asset data
- Trades
- Dispatch
- Settlement

APIs:

Requires further investigation

Use Case 9 – Understand Eligibility for Prequalification

Pain Point: It is quite hard to understand which products an asset (or asset group) could be prequalified for.

Goals:	Users Involved:
Enables FSPs and aggregators to easily understand which products their asset(s) could get prequalified for.	FSP, Aggregator

Description:

- Eligibility check of a ‘planned’ or ‘physical’ asset
- User needs to provide information on their specific asset (e.g. type, size, flex availability, times, location)
- Provides feedback on which assets are eligible for certain products/markets, and if not, why not? (i.e. through a simple filter)
- Need to re-run as new products come onto market

1. User provides info on their specific asset directly in the platform.
2. There will be further questions to fill in which capture information which isn’t captured in the asset register
3. They then receive a lists of products they’re eligible for and for each product they aren’t eligible for they see a list of reasons why

Use Case 9 – Understand Eligibility for Prequalification

Pain Point: It is quite hard to understand which products an asset (or asset group) could be prequalified for.

How to Implement

Outcomes

- Helps the user make an informed decision prior to undertaking the laborious (pre)qualification process.

Barriers / Dependencies

- Enabled by Product Registration (UC 4) and Rules Enablement (UC 5)

Questions to Address:

Additional Notes

Data Source:

- Market operator
- Regulator
- Asset register

Data Groups:

- Products
- Rules
- Asset data

APIs:

Requires further investigation

Use Case 10 – Reporting on trade, dispatch and settlement for asset performance

Pain Point: Users experience a lack of visibility and transparency on trade, dispatch and settlement status across markets, so they can truly understand how assets are being utilised.

Goals:	Users Involved:
Provide certainty and evidence that trade, dispatch and settlement has completed. Enable OEMs and investors with historical performance reporting by increasing transparency of past performance.	ESO/TSO, DSO/DNOs, Aggregators, Retailer/traders, FSPs, OEM, Regulator, BEIS

Description:

- The user can access raw data on historic transactions (i.e. trade, dispatch and settlement), and perform own analysis.
- Includes the ability to filter by asset type and size
- Includes information of why a dispatch wasn't successful (e.g. SO chose not to use the asset vs asset didn't perform)
- The transaction takes place on external market platform, then the transaction data is ingested onto the SFE providing a unified data source across all products and markets in a harmonised taxonomy.

Use Case 10 – Reporting on trade, dispatch, settlement for asset performance

Pain Point: Users experience a lack of visibility and transparency on trade, dispatch and settlement status across markets, so they can truly understand how assets are being utilised.

How to Implement

Options
- API
- .csv / .xls download
- both

Outcomes

- Increased user trust regarding trade progress
- Improved data transparency

Barriers / Dependencies

Questions to Address:

- Specifically, which 'actions/signals' (e.g. trade agreement, dispatch, settlement, all?) will be shared with SFE?
  - What data types required?
  - How 'real time' does it need to be?
- From interviews, have learned stakeholders are keen to access this data to understand the utilisation of their competition – is there a data access consideration here? (policy).

Additional Notes

- Data must be shared efficiently between systems.
- Not including price of trade, only focussing on success of the trade
- Enabled by Taxonomy (UC 1)

Data Source:

- Asset registers
- Product database
- SO
- Settlement Body
- Marketplace platforms

Data Groups:

- Dispatch
- (Successful) Trades
- Settlement
- Assets
- Products

APIs:

Connect to
- SOs
- Asset register(s)
- Settlement Body
- Market Places

Use Case 11 – Market Conflict Identification

Pain Point: Increasing frequency of market coupling presents an increasing risk of conflicts.

Goals:	Users Involved:
If one asset is participating in two markets and there is a conflict, users are alerted to it. Eg ESO and DSO instruct the same asset for the same or overlapping time.	ESO/TSO, DSO/DNOs, Aggregators, Retailer/traders, FSPs, OEM, Regulator, BEIS

Description:

- FSP and all involved market operators are notified of the conflict
- Could apply in a range of situations:
    - When rules aren't followed
    - When rules are followed but aren't sufficient to avoid conflict
- A notification should also be sent if the asset is instructed in the same way by two SOs
- Could be different for bids and dispatch (see interaction diagrams with 5 scenarios)

Use Case 11 – Market Conflict Identification

Pain Point: Increasing frequency of market coupling presents an increasing risk of conflicts.

How to Implement

- Before the event
- After the event
- For bids in the before the event scenarios it could be directly to the platform or indirectly
- Event driven validation trigger
- Schedule based validation trigger

Outcomes

- Reduces pitfalls to revenue stacking.
- Promotes liquidity in the market.
- Potentially reduce double-payments for the same outcome

Barriers / Dependencies

- Exchange would require a very near time element to it, poses technical and feasibility challenges.
- Dependency on capability to link assets to a flexibility provider and being able to connect them to aggregators, service providers and a DSO/TSO.

Questions to Address:

- For which products can this be provided – what is the minimum notice period?
- How will such conflicts be handled? (policy)

Additional Notes

Data Source:

- SOs

Data Groups:

- Planned Dispatch

APIs:

- Connect to SOs

Use Case 13 – Market testing of Products

Pain Point: Feedback on new products is often informal and does not always have a structured process, meaning feedback from a range of FSPs is difficult to incorporate and products are not optimized to increase market liquidity.

Goals:	Users Involved:
The ability for market operators to suggest new products, then allow FSPs to declare interest and provide feedback on that product.	DSO/DNOs, ESO/TSO, Aggregators, Retailer/traders, Flex provider, OEM, Regulator, BEIS

Description:
• Market operators could describe their envisioned future product and FSPs/aggregators could give early feedback as to how the product could be changed to be more accessible

Use Case 13 – Market testing of Products

Pain Point: Feedback on new products is often informal and does not always have a structured process, meaning feedback from a range of FSPs is difficult to incorporate and products are not optimized to increase market liquidity.

How to Implement

Outcomes

- Market operators are able to optimise their products early to make sure as many assets as possible can offer into their market
- FSPs and aggregators are able to tailor their assets to cater to a specific product requests, resulting in more time-effective trades
- Market size and options for buyers increases

Barriers / Dependencies

Questions to Address:

- Should there be a comparison feature that shows a prospective product owner similar products that could be adopted for consistency?

Additional Notes

Data Source:

- SFE

Data Groups:

- Products

APIs:

Use Case 14 – Streamlining Contracts across markets & products

Pain Point: Cumbersome contracting process eg after successful prequalification has resulted in cases of FSPs stopping to work with DNOs, hence this is a real and evidenced barrier to scaling flex.

Goals:	Users Involved:
Combining contracts across multiple markets into 'fewer docs'. E.g. synergy across Ts&Cs. Move away from bilateral contracts to more smart contracts.	Aggregators, FSPs, DSO/DNO, ESO/TSO

Description:

- Join up contracting in a digital space, moving away from paper contracts.
- Smart contracts to replace bilateral contracts
- Configurable contracting functionality of SFE platform – a configurable template to enable market operators to jointly agree a common process around a baseline.
- Allow the MOs to create standard templates

Use Case 14 – Streamlining Contracts across markets & products

Pain Point: Cumbersome contracting process eg after successful prequalification after successful prequalification has resulted in cases of flex providers stopping to work with DNOs, hence this is a real and evidenced barrier to scaling flex.

How to Implement

Outcomes

- Less bilateral contracts between market participants
- Remove friction of the contracting process, hence improving market liquidity.

Barriers / Dependencies

- Dependent on MOs agreeing commonality between contracting processes
- Create better standards for baselines, metering and technical characteristics (like the grid code) that can then be referenced in all contracts

Questions to Address:

- Define contracting process

Additional Notes

Data Source:

- SO

Data Groups:

- Prequal Data
- Additional Trades?

APIs:

- connect to SO

Use Case 15 – Centralised Pre-Qualification

Pain Point: Pre-qualification needs to be done for each product, which requires time and money to decode the requirements, results in data entry repetition and data quality issues. Consequently, it is laborious and time consuming.

Goals:	Users Involved:
Enable aggregators and FSPs to enter data that is common to the pre-qualification processes for many products in one place, reducing admin burden and repetition.	Aggregators, FSPs, DNO/DSO, ESO/TSO, Retailer/Supplier

Description:

- Create a journey with multiple entry points, showing the user what to provide for the next product & market combination they want to enter.
- User friendly, simplified way connected to all other markets.
- Includes testing requirements, for example if an asset demonstrates it has a certain ramp up time, then it is automatically meets the ramp up criteria for products requiring a slower ramp up time negate the need for that test.

Possible Paths:

1. User is pre-qualifying a new asset for the first time.
    a. Selects which of their registered assets they want to qualify
    b. Selects which product they want to PQ for
    c. Enters necessary data for PQ
    d. Uploads confirmation from DSO, supplier and asset owner
    e. Receives instructions about testing requirements if applicable
    f. Conducts testing and sends evidence
    g. Receives result through the SFE
    h. Asset now able to engage in the product market (assuming a positive outcome)
2. User is pre-qualifying an asset into a different product (it is already qualified for at least one other product)
    a. Selects which of their registered assets they want to qualify
    b. Select which product they want to PQ for
    c. Where already provided before, confirmation from DSO, supplier and asset owner is shown
    d. Relevant data and testing credentials from previous PQ application auto-populated, so user only has to enter what is left outstanding

Use Case 15 – Centralised Pre-Qualification

Pain Point: Pre-qualification needs to be done for each product, which requires time and money to decode the requirements, results in data entry repetition and data quality issues. Consequently, it is laborious and time consuming.

How to Implement

Outcomes

- Reduces the barrier to entry for new market entrants, hence has the potential to increase liquidity.
- Increased data quality

Barriers / Dependencies

- Enabled by Taxonomy and Asset Registration (UC 3)
- Replicating functionality of the ESO's Single Market Platform?
- Define data set that combines all central PQ data for all markets we want to address.

Questions to Address:

- Which elements of PQ are in scope for SFE? I.e. Data submission, IT requirements, testing requirements, performance monitoring?
- How will this sit alongside the ESO's Single Market Platform and other market platforms that perform Prequal?
- How can PQ be designed to accommodate changing asset portfolios, particularly relevant for domestic flex/suppliers?

Additional Notes

Data Source:

- Different Asset registers?

Data Groups:

- Asset Data
- Product Data

APIs:

- Connect to different Asset registers
- Connect to SOs for product data of that's outside of SFE

Use Case 16 – Visibility of Current & Future Flexibility Needs for all Networks

Pain Point: Many Aggregators and FSPs do not know where flexibility is needed in the short/mid/long term, hence struggle to invest in building/acquiring new assets.

Goals:	Users Involved:
Enable FSPs and Aggregators to find or build assets in the right locations. Enable retailers/suppliers to identify which of their customers are particularly attractive for provision of flex.	Aggregators, FSPs, DNOs/DSOs, Investors, Retailers/Suppliers, ESO/TSO

Description:
Visibility on e.g. constraints, curtailment, congestions, power needs, frequency, voltage and inertia. Options: 1. Data Visualisation – Network Heat Map 2. Raw Data – List of location needs Both options need a temporal view (short through to long term), and volume needs.

Use Case 16 – Visibility of Current & Future Flexibility Needs for all Networks

Pain Point: Many Aggregators and FSPs do not know where flexibility is needed in the short/mid/long term, hence struggle to invest in building/acquiring new assets.

How to Implement

Outcomes

- Better planning of flexibility in areas where it is required.
- Builds investor confidence to release capital for new assets

Barriers / Dependencies

- LTSD is the backbone for this use case, need to ensure SFE design incorporates principles of LTSD and any potential extension of it.
- Depends on DSOs having a digital twin and understanding their network
- Depends on SO being willing to share their data

Questions to Address:

- How to address security issues?
- Level of precision required for location (i.e. is postcode enough?), size of the need, the nature of the problem trying to address (i.e. frequency, thermal, voltage issues?)
- To what extent do DNOs/DSOs need visibility of each other's networks?

Additional Notes

Data Source:

- SOs

Data Groups:

Network Data

APIs:

To connect to SOs

Use Case 18 – Transparency of DER Positions & Actions

Pain Point: No visibility of what assets are doing in other markets, which is a barrier to market coupling.

Goals:	Users Involved:
• Enable market coupling by creating transparency of asset position and action benefitting ESO/TSO and DNOs/DSOs	ESO/TSO and DNOs/DSOs

Description:
• For every asset/asset group (for domestic) describe its position and its planned actions. • Should only be visible for assets that have actually won at auction/are reserved/ have a long term commitment etc

Use Case 18 – Transparency of DER Positions & Actions

Pain Point: No visibility of what assets are doing in other markets, which is a barrier to market coupling

How to Implement

Barriers / Dependencies

- Security concerns
- Enabled by asset register (UC 3) and centralized PQ (UC 15)

Additional Notes

Outcomes

- Creates trust and transparency for system operators
- Enables market coupling

Questions to Address:

- Who has access to the data and under what conditions?
- What level of granularity is necessary?
- Having this transparency shouldn't prohibit aggregators or FSPs to swap assets in their portfolio when providing flexibility.
- Should we conceal the prices that the FSPs/aggregators are offering their flex at in the different markets. Might be used by SO to force the FSP/aggregators to lower their price to the minimum they bid their asset in for. Eg FSP might offer flex at lower price to the TSO as he has a lower risk, because he has more assets that he could swap in, whereas the at local level he has a higher risk and might ask for a higher price
- How real time is this? Would we also show forecasts?

Data Source:

- Asset owner/Aggregator

Data Groups:

- Asset position and action

APIs:

Connect to

- Asset (Meters) for current position
- market platform for traded positions

Use Case 20 – Probabilistic Products enabling Small Assets

Pain Point: Difficult for ESO to confidently dispatch many small assets, as there is uncertainty in the volume of response that will be provided because individual small assets may respond or not under different circumstances.

Goals:	Users Involved:
Remove the barrier of dispatching many small assets by enabling them to be procured in a product with a probabilistic understanding of the response likely to be delivered.	ESO/TSO, Aggregators, Flex Provider

Description:

- Allowing FSPs to send us the actual profile they ran after probabilistic dispatch
- Support FSPs in their provision of data around flexibility and assets.
- Make use of introduction of HH settlement to lower entry barriers of flexibility (especially to Balancing Mechanism).

- Should enable
  - Products which allow for probabilistic provision of response volumes
  - Probabilistic dispatch model i.e. offer a price and hope that sellers provide (for small lots).

Use Case 20 – Probabilistic Products enabling Small Assets

Pain Point: Difficult for ESO to confidently dispatch many small assets, as there is uncertainty in the volume of response that will be provided because individual small assets may respond or not under different circumstances.

How to Implement

Outcomes

- Reduces overall cost of electricity.

Barriers / Dependencies

- Appetite/willingness of the ESO

Questions to Address:

- Do the assets/customers need to be prequalified to participate in this?
- At the moment this UC does not describe a separate functionality. It touches on similar functionality as UC 21.

Additional Notes

Data Source:

- Suppliers

Data Groups:

- Information on how many customers participated and the impact they had

APIs:

Use Case 21 – Facilitate Small Asset Participation

Pain Point: It's important for market operators to question their market entry barriers and understand the impact/benefits of changes to them.

Goals:	Users Involved:
Help level the playing field on market entry rules, by providing transparency.	System Operators

Description:
• Having all market entry requirements in one place • Comparison with other existing entry requirements to help consistency between markets for MOs • Help MOs see how many more assets could enter their market of they lowered a specific market entry rule. • Ratings for Buyers

Use Case 21 – Facilitate Small Asset Participation

Pain Point: It's important for market operators to question their market entry barriers and understand the impact/benefits of changes to them

How to Implement

Outcomes

- Increases number of small assets able to participate in BM, hence increasing market liquidity.

Barriers / Dependencies

- Requires significant industry wide transformation (policy dependency)

Questions to Address:

- How could an SFE address this? I.e. is it in scope?
- Needs more problem exploration with the supplier.
- If the UK is introducing half hourly settlement as mandatory this UC is no longer needed

Additional Notes

Data Source:

- Requires further investigation

Data Groups:

Requires further investigation

APIs:

Requires further investigation

Use Case 22 – SO Disclosure of rational behind asset dispatch

Pain Point: In certain scenarios SOs do not trade/dispatch against the merit order, and flex providers do not have transparency around this decision making, which results in flexibility providers losing confidence in the commitment of the SOs.

Goals:	Users Involved:
Enabler flex providers to understand if assets have been dispatched based on the merit order, and if not, why?	Aggregators, FSPs, Investors, ESO/TSO, DSO/DNOs

Description:
• Should it have been dispatched based on price? If not, why not? • Extension of 'Reporting and Analysis on trade, dispatch and settlement' UC (10). UC 10 answers 'what was traded/dispatched?', this UC answers 'why?', if there was a deviation from the merit order.

Use Case 22 – SO Disclosure of rational behind asset dispatch

Pain Point: In certain scenarios SOs do not trade/dispatch against the merit order, and flex providers do not have transparency around this decision making, which results in flexibility providers to lose confidence in the commitment of the SOs.

How to Implement

Outcomes

- Provides trust and transparency around decision making which is fundamental to market coupling.

Barriers / Dependencies

- Dependent on willingness of SOs to be transparent.

Questions to Address:

- How is this data currently captured by SOs? (if at all). Hence, how can it be ingested into the SFE in a usable way?
- The ESO is already working on better reporting around dispatch/trade decisions.
- Who can see this information, only the affected parties or everyone?
- Could be included in the dispatch report?

Additional Notes

Adheres to 'transparency' design principle

Data Source:

- SO

Data Groups:

Dispatch rational

APIs:

- Connect to SO

Use Case 25 – Secondary Market

Pain Point: If an FSP/Aggregator has already won a trade, but then a better opportunity for their asset arrives they might want to trade away their original position to be able to earn more money with the new opportunity. Or they might not be able to deliver and want to mitigate the delivery risk via the Secondary Market.

Goals:	Users Involved:
Enable flex providers to earn as much money with their assets as possible. Flex providers are less locked into their positions. This helps make the flex market more attractive and increases liquidity.	Aggregators, FSPs and any other flex traders

Description:

- Aggregators/FSPs who have won a bid, but don't want to provide the flexibility for it anymore have access to a market place, where they can log their position. Other FSPs/Aggregators can then buy that position and all the responsibilities that go with it.
- Buyer needs to be prequalified for the traded product
- There needs to be sufficient time in between the secondary trade and the actual obligation to provide the flexibility
- Provide details on the trade position eg
    - Product
    - Volume
    - Price
    - Time/Day

Use Case 25 – Secondary Market

Pain Point: If an FSP/Aggregator has already won a trade, but then a better opportunity for their asset arrives they might want to trade away their original position to be able to earn more money with the new opportunity. Or they might not be able to deliver and want to mitigate the delivery risk via the Secondary Market.

How to Implement

Options
- On the SFE
- Outside of SFE and only the actions/positions/trades are logged

Outcomes

- The original trade is now logged against the new buyer, a new contract is created and they have to fulfil all the obligations

Barriers / Dependencies

- There needs to be a check if the new buyer is eligible to provide the flex (eg PQ status, planned position at the time of fulfilment)
- Challenges around source of data
- Challenges around commercial sensitivity (policy dependency)
- Enabled by Asset Registration (UC 3)

Questions to Address:

- Is this trade happening on the SFE platform or is the SFE just capturing the data that it happened?
- How do we keep track of previous owners? And is this needed?
- What is the minimum time needed between trade and fulfilment?
- Currently this happens on the intraday and day ahead market. It could also happen on the same market where the SO buy. Becomes less relevant when the markets move closer to RT. Do we need a SM?

Additional Notes

Data Source:

- Market Platforms eg Piclo, Nodes, Elektron, SMP, PAS

Data Groups:

- Trades

APIs:

- Yes, to allow data transfer on trades

Use Case 27 – Bid strategy support (3rd party offering)

Pain Point: Understanding in which market an asset would make most money at any point in time is a huge market entry barrier. This will only increase once markets are coupled.

Goals:	Users Involved:
Help FSPs/Aggregators to understand the best deal for their assets at any point in time	FSPs, Aggregators and other flex sellers 3rd party service provider

Description:

- This would be a third party service where we just allow them to offer it through the SFE platform. They would have to decide the exact process/steps
- Users choose an asset/ or a group of assets that is/are registered to them and has been prequalified for more than one market
- They select a time frame
- The system shows for each half hour? suitable and suggested bids
- Secondary market trades should be included into the list

Use Case 27 – Bid strategy support (3rd party offering)

Pain Point: Understanding in which market an asset would make most money at any point in time is a huge market entry barrier. This will only increase once markets are coupled.

How to Implement

Outcomes

- FSPs/Aggregators are confident is their choice which market to bid for with their assets at any point in time.
- New to market aggregators have a starting point/reference point when developing this competence themselves

Barriers / Dependencies

- Asset needs to be registered, so that we have all the data on size and flex available

Questions to Address:

- For which markets/products is this possible?
- How would the payment for this work? Would it happen through SFE or outside? If yes –> SPI -> GDPR risk

Additional Notes

Data Source:

- Asset register
- Prices from Market Platforms

Data Groups:

- Products
- Prices
- Assets

APIs:

- Third party data exchange
- API for Payment

Use Case 28 – Asset Value Using Price Forecasting (3rd party offering)

Pain Point: It's hard to forecast how much money an asset will make.

Goals:	Users Involved:
Help people understand what value they can expect from a certain asset (group/type)	Aggregators and other flex sellers 3rd party service provider

Description:
• This would be a third party service where we just allow them to offer it through the SFE platform. They would have to decide the exact process/steps • Users chose an asset/ or a group of assets that is/are registered to them and which products they are already prequalified for • If they looked at prequal eligibility the UI should display which products they would be eligible for • They select a time frame • The UI shows asset value forecasts • Secondary market trades should be included into the list

Use Case 28 – Asset value using price forecasting (3rd party offering)

Pain Point: It's hard to forecast how much money an asset will make.

How to Implement

Outcomes

- FSPs/Aggregators are confident in the value they will make with their asset (group)

Barriers / Dependencies

- Asset needs to be registered, so that we have all the data on size and flex available

Questions to Address:

- How would the payment for this work? Would it happen through SFE or outside? If yes –> SPI -> GDPR risk

Additional Notes

Data Source:

- SFE

Data Groups:

- Asset Data
- Prices, Volumes, Performance

APIs:

- API to connect to the Broker, provide him with raw data and get output data back
- API for Payment

Use Case 29 – Change management

Pain Point: It's vital for investors and market participants to trust that market changes are handled transparently and use an agreed change management process

Goals:	Users Involved:
Implement a transparent change management process for rules, standards, taxonomy and market changes to increase trust	All

Description:
Business process implementation around market, standards, taxonomy and rule changes where Regulators/ SOs have to follow a defined process within SFE platform to implement market changes. Allow market participants to engage in the change management process.

Use Case 29 – Change management

Pain Point: It's vital for investors and market participants to trust that market changes are handled transparently and using an agreed change management process

Questions to Address:

- What happens if the process is not followed?
- Is a change management process already in place and we just need to capture it?
- Which stakeholders do we need to engage to participate in market changes?

Outcomes

- All market participants understand which changes are planned and by when they will be in place and have the possibility to participate in the process

How to Implement

- On the SFE
- Outside of SFE

Barriers / Dependencies

Additional Notes

Data Source:

- Requires further investigation

Data Groups:

- Requires further investigation

APIs:

- Requires further investigation

Use Case 30 – Streamlined performance rating for users

Pain Point: There is a need for understanding how users have performed in the past to increase trust

Goals:	Users Involved:
Streamlined performance rating for all FSPs, Aggregators and MOs, to understand how they performed in previous trades	All

Description:
Streamlined process for rating the performance of that user (eg like Airbnb), so that buyers/sellers can see past performances of the user's assets and comments from people who they previously traded with

Use Case 30 – Streamlined performance rating for users

Pain Point: There is a need for understanding how users have performed in the past to increase trust

Questions to Address:

- Who can see the performance rating and is this optional?
- Is this covering both sellers and buyers?
- Is this rating per user? Per asset?

Outcomes

- All market participants trust that the other party can perform their part of the agreement

How to Implement

Barriers / Dependencies

Additional Notes

Data Source:

- Requires further investigation

Data Groups:

- Requires further investigation

APIs:

- Requires further investigation

Use Case 31 – Risk calculation

Pain Point: If assets are allowed to participate in multiple markets, the risk that they don't perform increases. The system operators need transparency around those risks to plan their reserves.

Goals:	Users Involved:
Enable SOs to make well informed decisions on how much reserve they need. Increases liquidity by allowing more assets to participate	FSPs, Aggregators, SOs

Description:
Calculation on how likely it is that an asset won't perform (based on historic performance and participation in multiple markets). This should be both an asset overview and aggregated to flag areas where the SO might have an issue so they can either 1) Choose less risky assets 2) Buy more reserves This is not market conflict identification. It talks about probability of an asset performing, not about conflicting dispatch orders from different markets. This is unrelated to probabilistic products, where there is no dispatch.

Use Case 31 – Risk calculation

Pain Point: If assets are allowed to participate in multiple markets, the risk that they don't perform increases. The SOs need transparency around those risks to plan their reserves.

Questions to Address:

- We need to ensure that this isn't used for gaming

Outcomes

- SOs feel confident that they can hold the frequency at 50 Hz, despite the assets participating in multiple markets.
- Primarily benefits buy side

How to Implement

Barriers / Dependencies

Additional Notes

Data Source:

- Market Platforms
- Settlement Bodies
- Aggregators

Data Groups:

- Performance
- Trades
- DER position and planned actions

APIs:

- Covered by other Use Cases

Use Case 32 – Settlement

Pain Point: FSPs, Aggregators and SOs need to be confident that the right amount of money is paid.

Goals:	Users Involved:
Perform settlement activities	FSPs, Aggregators and SOs

Description:
The determination and settlement of amounts payable in respect of Trading Charges (including Reconciliation Charges) in accordance with the Code (including where the context admits Volume Allocation)

Use Case 32 - Settlement

Pain Point: FSPs, Aggregators and SOs need to be confident that the right amount of money is paid.

Questions to Address:

Outcomes

- FSPs, Aggregators and SOs feel that the right amount was paid.

How to Implement

Barriers / Dependencies

- Implementing this Use Case would duplicate existing infrastructure

Additional Notes

Data Source:

- Aggregator
- FSP
- SO

Data Groups:

- Meter Data
- Contracts
- Auction Prices

APIs:

- Covered by other Use Cases

Use Case 33 – Dispatch

Pain Point: Most products depend on the asset being dispatched to confirm the set point, start and end time.

Goals:	Users Involved:
Perform dispatch activities	FSPs, Aggregators and SOs

Description:
Send instruction signal to assets to confirm set point, start and end time.

Use Case 33 – Dispatch

Pain Point: Most products depend on the asset being dispatched to confirm the set point, start and end point

Questions to Address:

Outcomes

- Assets know which profile to run

How to Implement

Barriers / Dependencies

- Implementing this Use Case would duplicate existing infrastructure

Additional Notes

Data Source:

- SO

Data Groups:

- Optimisation output

APIs:

- Get optimisation output from SO

Use Case 34 – Optimisation across all markets and voltage levels

Pain Point: At the moment optimisation doesn't occur across all markets and voltage levels, which means that we potentially pay a higher price.

Goals:	Users Involved:
Finding the cheapest way to optimise across all markets and voltage levels.	FSPs, Aggregators and SOs

Description:
Optimizing demand, supply and constraints across all markets . In theory, this could lead to a cheaper solution. In practice this would be a very complex mathematical problem. The calculation takes too long and could therefore not be done close enough to real time, which ends in non optimal solutions, as near real time changes couldn't be included.

Use Case 34 – Optimisation across all markets and voltage levels

Pain Point: At the moment optimisation doesn't occur across all markets and voltage levels, which means that we potentially pay a higher price

Questions to Address:

- Is there a better way to cut the problem?

Outcomes

- Cheapest way for consumers is identified.

How to Implement

Barriers / Dependencies

- Too complex and time consuming to be implemented

Additional Notes

Data Source:

- SO
- Market Platforms

Data Groups:

- Constraints
- Supply
- Demand

APIs:

- Connect to SO

Use Case 35 – Auctions

Pain Point: System operators create seller competition to help achieve the best price for the consumers

Goals:	Users Involved:
Finding the best flex offer for the product	FSPs, Aggregators and SOs

Description:
Undertake a market clearing (“auction”) process for buying and selling flexibility at the lowest cost.

Use Case 35 – Auctions

Pain Point: System operators create seller competition to help achieve the best price for the consumers

Questions to Address:

Outcomes

- Cheapest solution is identified.

How to Implement

Barriers / Dependencies

- Implementing this Use Case would duplicate existing infrastructure

Additional Notes

Data Source:

- SFE

Data Groups:

- Prequal data
- Contracts
- Products

APIs:

- Connect to SO to inform them of the outcome

Use Case 36 – Simple Market Participant Search

Pain Point: It's not always easy to find the right market participant

Goals:	Users Involved:
Enable users to find other market participants	All

Description:
• A search function to find other market participants and point you at their APIs so that you can find out more about them • Inform people who the different market players are

Use Case 36 – Simple Market Participant Search

Pain Point: It's not always easy to find the right market participant

Questions to Address:

Outcomes

- Market participants can find each other

How to Implement

Barriers / Dependencies

Additional Notes

Data Source:

- Requires further investigation

Data Groups:

- Users

APIs:

- Requires further investigation

Use Case 37 – Market monitoring (for regulatory issues, market faults and security issues)

Pain Point: There is a need for transparency across regulatory issues, market faults and security issues

Goals:	Users Involved:
Create transparency and increase trust around regulatory issues, market faults and security reasons	All

Description:
Enable continuous observation of market activities to enable identification of regulatory issues, market faults and security issues. Includes analytics. • Identify gaming • Is anyone breaking the rules? • Does someone have suspiciously high profits?

Use Case 37 – Market monitoring (regulatory issues, market faults and security issues)

Pain Point: There is a need for transparency across regulatory issues, market faults and security issues

Questions to Address:	Outcomes
	• There is confidence in the market that regulatory issues, market faults and security reasons are monitored

How to Implement	Barriers / Dependencies

Additional Notes	Data Source:	Data Groups:	APIs:
	• Requires further investigation	• Requires further investigation	• Requires further investigation

Use Case 38 – Impartial route to recourse in case of dispute

Pain Point: When disputes occur, there needs to be an impartial process to address them

Goals:	Users Involved:
Disputes are managed efficiently. Promotion of trust in the processes of the flex markets.	All

Description:
Create a process to manage disputes around platform processes. Might be needed when - Someone wasn't accredited and wants to challenge it - Someone is unhappy with their rating assigned by the platform - Any other issue a user has with a process owned by the platform Option: - Processes that are owned outside of the platform but facilitated through the platform. Might be covered by market monitoring

Use Case 38 – Impartial route to recourse in case of dispute

Pain Point: When disputes occur, there needs to be an impartial process to address them.

Questions to Address:

- Who would be the impartial entity?

Outcomes

- Disputes are managed through a business process

How to Implement

Barriers / Dependencies

Additional Notes

Data Source:

- Requires further investigation

Data Groups:

- Requires further investigation

APIs:

- Requires further investigation

Out of Scope Use Cases

The following use cases have been de-prioritised to be out of scope for now.

They can be picked up again at a later point in case priorities change.

Use Case 12 – Visualisation of Assets

Pain Point:

Goal

Enable users to visualise both single and grouped assets to better understand their value, making analytics more accessible to other parties.

Users Involved

ESO/TSO, DSO/DNOs, Aggregators, Retailer/traders, FSPs, OEM, Regulator, BEIS, Investors

Description

- Making analytics more accessible to other parties through the provision of raw data.

Questions to Address

- What data is okay to share both legally and ethically?
- Will current flex providers consent to the sharing of their asset data?

Benefits

- Improved visibility to investors and the financial community, to better understand market saturation and gaps
- Make analytics more accessible to other parties through providing access to raw data

Barriers / Dependencies

- Requires robust analytical capabilities (like dashboarding) to visualize large amounts of data
- Relies on API to facilitate access to data layer
- Dependent on asset register (UC 3)

Additional Notes:

Use Case 17 – Fully Informing Consumers

Pain Point: Benefits / risks of partaking in flexibility markets are very complex to determine for FSPs, particularly those outside of the industry, which is a barrier to liquidity

Goals

Consumers need to be fully informed of the advantages and consequences of being part of the flexibility market.

Users Involved

Consumers, Aggregators, FSPs

Description

- Education section, in simple language, that explains what flexibility is, and the advantages/consequences broken down by asset type and market.
- Provide a portal for consumer facing information on flexibility, enabling consumers to understand how their assets are being used in markets, the roles of market participants, and market governance arrangements.

Questions to Address

- Who's responsibility is it to ensure consumers are informed?

Benefits

- Increased market liquidity by improved customer trust.

Barriers / Dependencies

- Liability / responsibility on 'exchange operator' on quality of information provided.
- Resources need to keep this constantly up to date and accessible.

Additional Notes:

Use Case 19 – Grid Supply Point Visibility for DER Assets

Pain Point: Information is required by the ESO, but FSPs/Aggregators are entirely dependent on getting that data from the DNO/DSOs which is very challenging and time consuming. Currently not public for assets below 1 MW

Goal (the 'what')

Provide visibility of grid supply point for all DER assets (which have been accepted into markets, for reservation or potential activation). Specifically, which supply points is it connected to, and which it COULD be connected to. Requirement for Aggregators and FSPs to provide information on the grid supply point, making it very accessible.

Users Involved

ESO/TSO, DSO/DNOs, Aggregators, FSPs

Description

- Users able to access a clear mapping of assets to actual and possible grid supply points.

Questions to Address

- At which point in 'the process' does the ESO require this information?
- How often does the grid supply point of a DER change? (for static assets)? And why?

Benefits

- Reduced barrier to the pre-qualification process
- Easier participation of more and smaller DERs

Barriers / Dependencies

- Data is supplied from DNOs/DSOs

Additional Notes:

Adheres to 'transparency' design principle

Use Case 23 – Ability for SO to veto another SO planned dispatch

Pain Point: One SO dispatches an asset that causes another SO problems. Potential to arise more frequently with market coupling and increasing system fluctuations. This is not actively tackled by the SO at the moment.

Goals:	Users Involved:
Ability for SO to veto another SO's planned dispatch.	ESO/TSO, DSO/DNOs, Aggregators, FSPs

Description:
• Options: 1. Veto during bidding 2. Veto After auction, prior dispatch 3. Veto After dispatch (in scenario where service is several minutes in duration)

Use Case 23 – Ability for SO to veto another SO planned dispatch

Pain Point: One SO dispatches an asset that causes another SO problems. Potential to arise more frequently with market coupling and increasing system fluctuations. This is not actively tackled by the SO at the moment.

How to Implement

Outcomes

- Reduces risk market coupling presents to SOs.

Barriers / Dependencies

Questions to Address:

Additional Notes

Adheres to 'transparency' design principle

Data Source:

- Requires further investigation

Data Groups:

Requires further investigation

APIs:

Requires further investigation

Use Case 24 – Transparency of proposed and planned assets

Pain Point: Uncertainty in the investor community about what assets are needed and where, making access to capital harder.

Goals:	Users Involved:
Provide transparency on planned flex asset projects, to give investors a view on the momentum in the market to build confidence in the longevity/stability of the market.	Investors, Aggregators, ESO/TSO, DSO/DNOs.

Description:

- Investors can easily access information on proposed and planned flexibility asset projects.
- Data include asset location, type, capacity etc.

Options:
1. Raw Data – list of projects
2. Visualised Data – map of projects

Use Case 24 – Transparency of proposed and planned assets

Pain Point: Uncertainty in the investor community about what assets are needed and where, making access to capital harder.

How to Implement

Outcomes

- Provide investors a view on other investment activity, a way to assess market momentum, build confidence and encourage investment.

Barriers / Dependencies

- Challenges around source of data
- Challenges around commercial sensitivity (policy dependency)
- Enabled by Asset Registor (UC 3)

Questions to Address:

- How can we avoid that this is used for gaming?
- What is the source of the data?
- To what level of detail? I.e. size, owner?
- How to navigate commercial sensitivity?

Additional Notes

Adheres to ‘transparency’ design principle

Data Source:

- Requires further investigation

Data Groups:

Requires further investigation

APIs:

Requires further investigation

Use Case 26 – Transparency of assets below 3.5 kW

Pain Point: Assets below 3.5kW only need to notify DNO of connection, but no penalty if they don't (G98). Assets above 3.5kW have to go through tedious and complicated process where the DNO can refuse. Users either lie about the size of their assets, or sometimes just don't go through the process because they're not informed. Estimate 60% of small assets (by asset number) is not visible to the DNO. Pain Point = DNO has no visibility of these small case assets which they can utilise

Goals:	Users Involved:
- make PQ process for small assets simpler? - incentivise/force users to register their small scale assets?	Investors, Aggregators, ESO/TSO, DSO/DNOs.

Description:

Use Case 26 – Transparency of assets below 3.5 kW

Pain Point: Assets below 3.5kW only need to notify DNO of connection, but no penalty if they don't (G98). Assets above 3.5kW have to go through tedious and complicated process where the DNO can refuse. Users either lie about the size of their assets, or sometimes just don't go through the process because they're not informed. Estimate 60% of small assets (by asset number) is not visible to the DNO. Pain Point = DNO has no visibility of these small case assets which they can utilise

How to Implement

Outcomes

Barriers / Dependencies

Questions to Address:

Additional Notes

Data Source:

- Requires further investigation

Data Groups:

Requires further investigation

APIs:

Requires further investigation