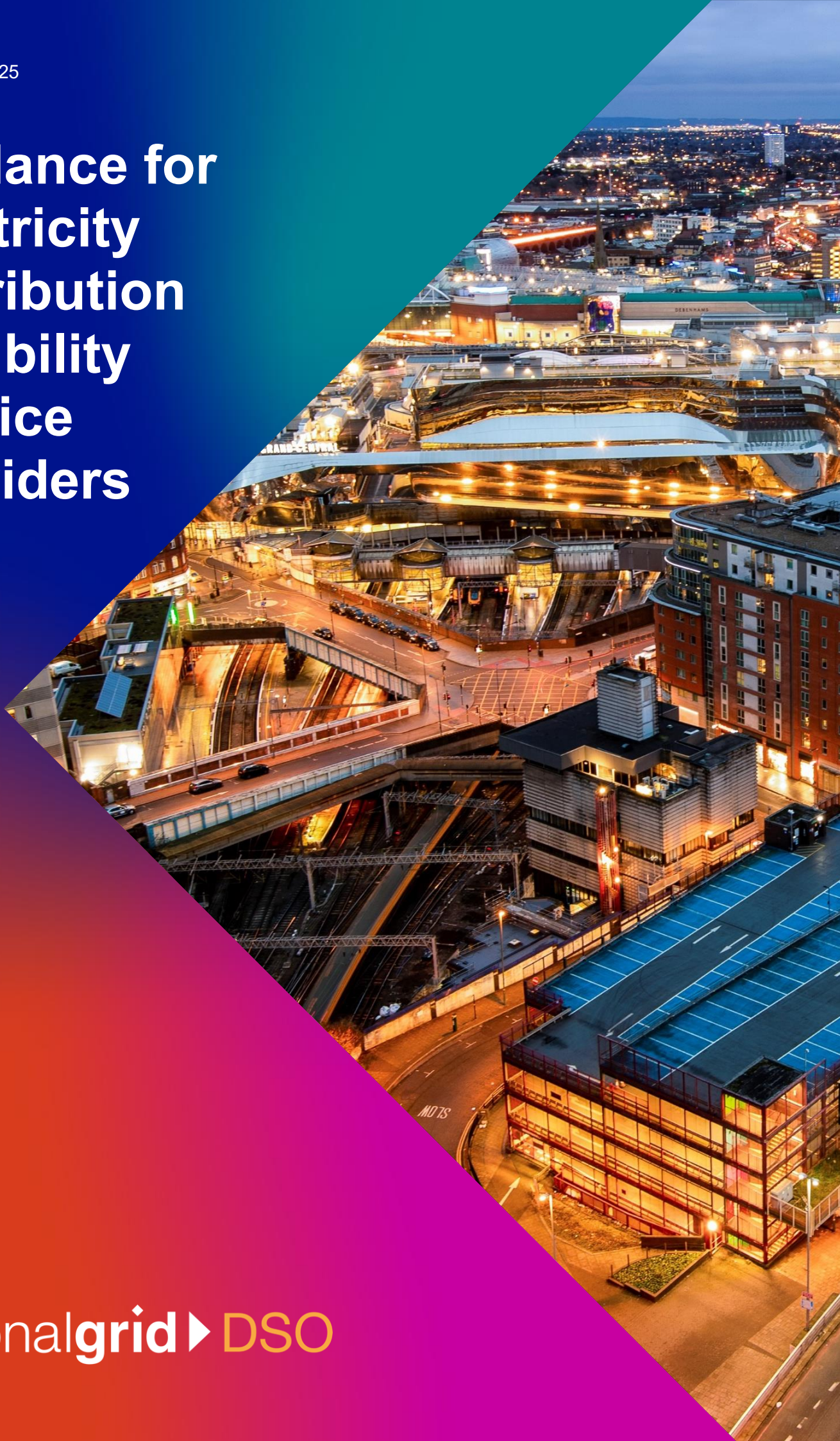
September 2025

Guidance for Electricity Distribution Flexibility Service Providers



V1

nationalgrid DSO

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1.0 Document Purpose

1.1 Preamble

National Grid DSO is committed to ensuring the safe, secure and efficient operation of the electricity network through the use of flexibility services. These services allow us to adapt to network demands and constraints dynamically, ensuring a more resilient energy system while minimising costs for consumers.

This guide for Flexibility Service Providers (FSPs) has been created to provide a clear view of how to participate in our flexibility markets. The document is split into chapters, each focussing on different key areas of the onboarding, procurement and operational process, but highlighting where processes are inter-related. The high-level process is summarised as below.

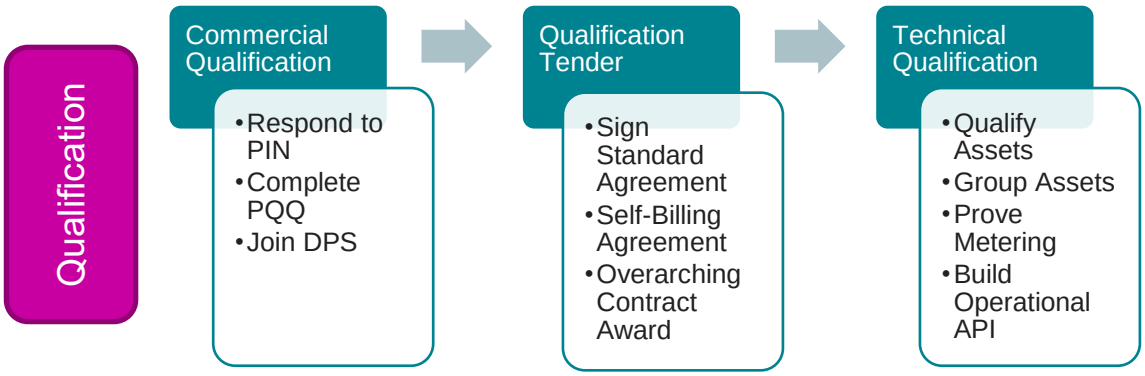


Figure 1.1: Overview of our qualification processes

The participation journey starts with qualification. Qualification enables the eligibility of FSPs and verifies their assets. This involves the commercial aspects: agreeing to the Flexibility Service Agreement and receiving an Overarching Contract; and the technical aspects: building logical asset groupings, proving metering capability and building API links to the operational portal (the Flexible Power Portal) where the flexibility product requires close to real time instruction.

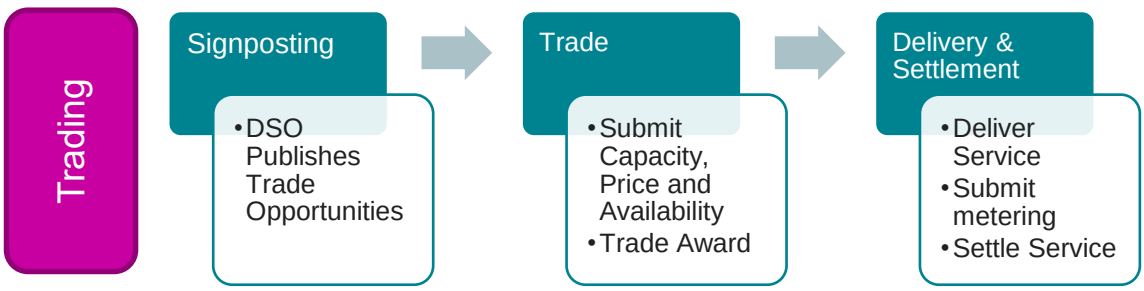
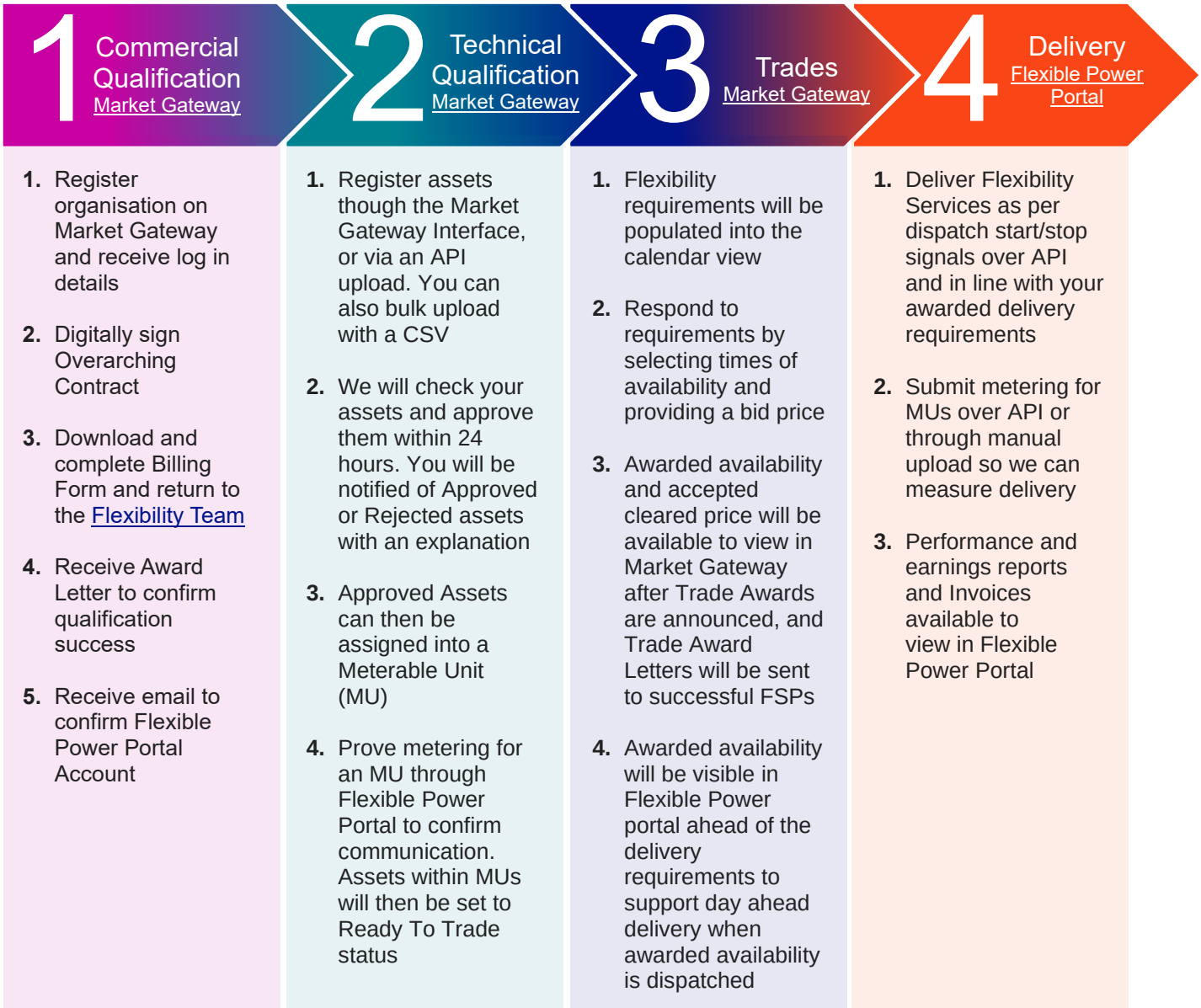


Figure 1.2: Overview of our trading processes

Trading is about how we share our flexibility needs and how FSPs respond to those needs. We accept or reject the responses FSPs submitted based on our service selection principles. And the last part of the participation journey is delivery, we utilise the service, monitor the delivery and then settle any payments.

The focus of this document is on how we procure Flexibility Services. For more details on when and where we procure, please see the publications detailed in the diagram below.



1.2 About Our Procurement Activities

National Grid DSO facilitates its procurement activity through its online portal, Market Gateway. Flexibility Service Providers (FSPs) seeking to deliver flexibility services should register on the Market Gateway and complete the pre-qualification requirements to enable their eligibility to enter into flexibility Trades. Pre-qualification is always open and can be completed at any time. Further Guidance can be found on the National Grid DSO website.

1.3 About Our Engagement Activities

In addition to our formal engagement activities, we are happy to engage with interested parties at any time, please email nged.flexiblepower@nationalgrid.co.uk.
Where registration for engagement activities are TBC, we will update this document and the National Grid DSO website as early as possible after these are known.

1.4 Modifications

We reserve the right to amend, add or remove procurement and engagement activities at any time and will update this document accordingly and periodically when required.

1.5 Further Guidance and Contact

Document	Description
Flex in Five	A brief overview of flexibility
End to End Market Gateway Guide	A guide through the process of using Market Gateway for trades
Participation Diagrams	An overview of the steps to participation
Procurement and Engagement Timetable	Timetable and dates of our activities
Guidance for Electricity Distribution FSPs	A complete in-depth guide to flexibility

The Flexibility team can be contacted with the details below.

Contact us:

nged.flexiblepower@nationalgrid.co.uk

2.0 Flexibility Products Overview

2.1 The need for flexibility

Flexibility is one of the tools we use to ensure the capacity of the network can meet the needs of our existing and future customers when and where they need it at the lowest costs. For example, flexibility helps us make the best use of existing assets by avoiding the need for permanent network upgrades to meet a temporary spike in demand.

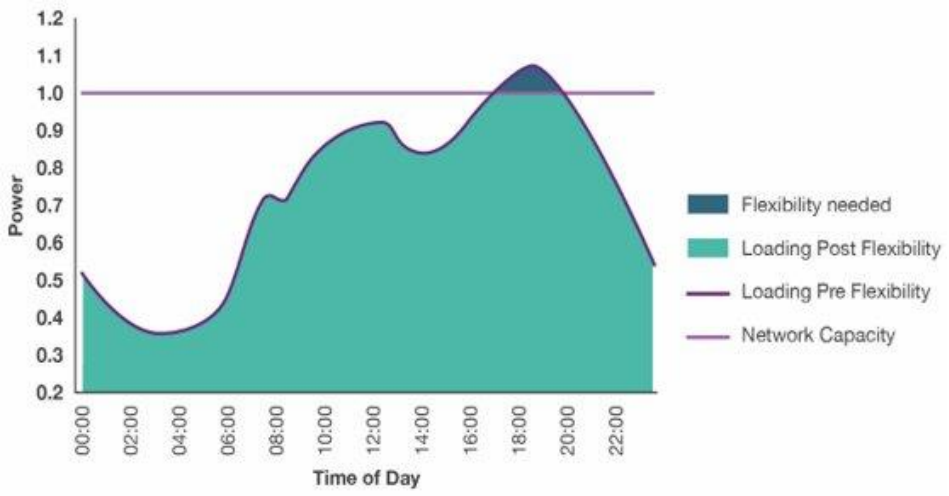


Figure 2.1: A demonstration for flexibility need

Flexibility also allows us to maximise system access for all network users. To support the UK's net zero targets, we must ensure that clean, cheap, renewable energy already connected onto our network is available to supply to customers when it is available.

2.2 Our Products

We currently procure flexibility across three products. These products are a subset of the industry standard flexibility products defined in Open Network Products Review and Alignment paper.

Scheduled Utilisation	Scheduled Availability, Operational Utilisation	Operational Utilisation
This service is a scheduled constraint management service with fixed delivery periods. It offers a utilisation only payment.	This service has been developed to support the network in the event of specific fault conditions, such as during maintenance work. It offers an availability and utilisation payment.	This service supports power restoration following rare fault conditions. No availability payment, instead it offers a premium utilisation payment.

Figure 2.2: Product Summary

Our products are procured across two different timescales: long-term and short-term. The key parameters are summarised in the table below.

	Long-term tender			Short-term tender
	Scheduled Utilisation (SU)	Scheduled Availability, Operational Utilisation (SAOU)	Operational Utilisation (OU)	Scheduled Utilisation (SU)
Capacity Threshold	No threshold, we work with assets of any size			
Eligibility	Registration can only be made for energised assets			
Minimum Technical Requirements	Assets or asset group is able to deliver for a minimum of 30mins.			
Constraint Voltage Level	LV	HV	HV	HV+LV
Procurement Frequency	Yearly			Weekly (Will move to Daily)
Pricing Mechanic	Pay-as-Clear	Pay-as-Clear	Fixed Price	Pay-as-Clear
Payment Structure	Utilisation only (£/MWh)	Availability(£/MW/h) +Utilisation (£/MWh)	Utilisation only (£/MWh)	Utilisation only (£/MWh)
Service Window	Utilisation; 4 x 4-hour windows; Night: 00:00-04:00 Morning: 08:00-12:00 Afternoon: 12:00-16:00 Evening: 16:00-20:00	DSO defined Capacity Requirement Windows	Availability; 3 x 8-hour windows: 00:00-08:00 08:00-16:00 16:00-24:00	DSO defined Capacity Requirement Windows
Metering Requirement	Minute by minute or Half-hourly Settled			
Dispatch Instruction	Day ahead or 15mins ahead of delivery start	Day ahead or 15mins ahead of delivery start	15mins ahead of delivery start	Day ahead or 15mins ahead of delivery start
Stackability	With NGED products; We allow stacking between HV and LV services and where 11kV or 33kV HV zones are nested within 132kV GSP/BSP level zones. With Non-NGED products; We do not impose any exclusivity on our services so where other services allow, you can stack.			

Table 2.1: Overview of the flexibility products

3.0 Commercial Qualification

The Commercial Qualification processes adopted by National Grid DSO for the procurement of its distribution flexibility needs have been designed to ensure adherence to UK procurement regulations (as defined in the Utilities Contract Regulations). The processes are facilitated through the Market Gateway, which offers a simple and low barrier route for FSPs to qualify for an Overarching Contract.

We have also partnered with Piclo to facilitate trades through their Piclo Max platform. This guidance document explains the processes for direct participation with National Grid DSO, for more information on participation through Piclo, please visit their website.

All FSPs awarded an Overarching Contract are then eligible to complete the Technical Qualification processes and ultimately enter into Trades where they will bid to deliver flexibility services in response to the publication of our flexibility requirements.

Commercial Qualification can be completed at any time, it is always open.

The Market Gateway has been developed to support the contracting, and technical on-boarding processes FSPs are required to complete to enable their eligibility to provide distribution flexibility services to National Grid DSO. FSPs wishing to enter the process should visit https://marketgateway.nationalgrid.co.uk/ to request and account for their organisation.

Below is a summary of the process steps within Commercial Qualification;

3.1 Periodic Indicative Notice (PIN) response

The PIN response is simply an expression of interest to provide services.

To join the DPS, interested parties must first register their interest in response to our Annual PIN (published on the UK governments My Tenders site) on our Market Gateway. This involves simple confirmation of company details and registering formal interest in the PIN. This starts registration to the DPS.

This PIN response only needs to be completed once.

Registration to the PIN does not commit either party to flexibility service provision.

3.2 Pre-Qualification Questionnaire (PQQ)

Following the PIN response, the FSP must complete the PQQ on the Market Gateway.

This requires confirmation that the FSP meets the minimum requirements for participation in flexibility services. These are:

1. Acknowledgment that building an Application Programme Interface (API) to the Flexible Power Portal to enable the communication of dispatch signals is a requirement of entering into OU Trades for services that are instructed in near-real time.
2. Ability to provide relevant metering data to the Flexible Power Portal over API or via the upload functionality provided.
3. Ability to deliver flexibility for a minimum of 30mins.

There are also a number of mandatory due diligence questions that FSPs must answer that cover mandatory ineligibility, discretionary grounds for rejection, and confidentiality requirements. The FSP must confirm their acceptance and adherence to these.

Once the PQQ is complete, the FSP can then continue to the Qualification Tender.

3.3 Qualification Tender

In order to receive and Overarching Contract, FSPs will be invited to respond to the Qualification Tender. The Qualification Tender requires the FSP to agree to the Flexibility Service Agreement within the Market Gateway, the Service Agreement is broken down into six sections which are;

1. The Glossary to the General Terms and Conditions
2. The General Terms and Conditions
3. The Service Terms
4. Annex 1 - Flexibility Management System
5. Annex 2 – Trade Rules
6. Annex 3 – Special Requirements

Each section must be agreed.

The full Service Agreement can found on the Flexible Power Website, for review ahead of completing the agreement within the Market Gateway.

Once the Flexibility Service Agreement is accepted, the FSP must then confirm acceptance of a Self-Billing agreement. This allows us to raise invoices on the FSP's behalf. See the 6.3 Billing Process section for more details.

Finally, the FSP will be directed to download a Supplier Details form. This form is used to gather the FSPs billing information, it must be completed and returned to NGED.Flexiblepower@nationalgrid.co.uk.

Following download of the Supplier Details Form, Market Gateway will issue a formal Overarching **Contract Award**. Issue of the Contract Award will also trigger Flexible Power Portal Account set-up, providing FSPs with access to the API set-up and testing environments. See the Technical Qualification Chapter for more details.

Upon issue of the contract award, a 10-day standstill period will commence. During this time users are unable to access Trades. The standstill period does not affect a user's access to Technical Qualification.

4.0 Technical Qualification

Technical Qualification ensures FSPs are ready to conduct Trades.

It includes the registration and validation of assets, the creation of logical grouping of these assets, proving metering submission capability and where the flexibility product requires close to real time instruction, building out the API to our Flexible Power Portal so that start stop signals can received.

4.1 Asset Registration & Management

The first step of technical qualification is to register assets on the Market Gateway.

An asset is the smallest entity that we consider on the Market Gateway. It is used to represent the lowest level at which the FSP can meter. This could either be an individual or combination of machines/Low Carbon Technologies (LCTs) depending on the metering location.

A few examples of an asset include:

- A grid scale battery with metering at either the asset level or the Point of Connection.
- A single generator if using DER Level metering, or all generators on site if using Point of Connection metering
- Individual EV charge points or Heat Pumps with DER Level metering, or a property with its associated Low Carbon Technologies, with Point of Connection metering.

Collecting information at this level of granularity helps us to better understand, and validate where the flexibility we are procuring is coming from. It feeds into the baselines we use and into elements of reporting, such as on the carbon intensity of our service.

The information required to register an Asset includes:

- The location of the asset
- The MPAN(s)/MSIDs associated with the asset
- The technology type
- The peak capacity (in KW)
- The assets metering point

Asset registration can be done via UI, API and CSV bulk upload.

These assets are then validated by National Grid DSO. Once validated we assign the assets to Constraint Management zones (CMZs) as well as ensure that there are no duplicate assets. Where there is duplication, we will reject the second registered asset. We encourage flex providers to use the decommissioning functionality in the Market Gateway when assets are no longer in their control to allow other flex providers to register them. On some occasions duplication may be valid, for example when the technology types are different and metering is at the asset level – we understand these types of nuances and check for them before deciding upon rejection.

It should be noted that we will not allow multiple assets registrations on a single site (behind a single MPAN) if any of them have point of connection metering. In this case, they should be combined into a single asset to avoid any risk of double counting performance.

Assets can be edited on the Market Gateway subject to revalidation. It should be noted that changes to Assets that form part of an existing Trade will not take effect until the Trade commitment period is complete.

More details on this process can be found on the Market Gateway.

4.2 Creating a Meterable Unit (MU)

Once assets are approved, they need to be assigned into logical groups. These logical groups, called Meterable Units, are used to group assets into a joint metering feed. Baselining is also applied at the MU level. After creation, MUs are transferred to the Flexible Power Portal and assigned a unique identifier known as MUID.

The FSP will need to provide metering for each MU, either via API or through CSV upload functionality both available in the Flexible Power Portal. MUs must prove their metering capability ahead of becoming eligible to enter Trades. **To pass the metering data checking, the FSP needs to provide at least 12 meter readings within the last 7 days.**

FSPs can create and edit MUs on the Market Gateway. It should be noted that changing MUs can have an impact on existing Trades, for example, by altering the baseline. As such, care should be taken when making changes.

Due to the interaction with Baselining and Metering requirements, there are a number of restrictions on the technologies that are able to be mixed within a single MU. These are detailed in the table below.

ASSET TYPES	IS GROUPING ALLOWED?
Industrial or Commercial Demand	No
All other categories	Yes

4.2.1 Operational Periods

As detailed in the section below, we use the Flexible Power Portal as our operational tool. This currently considers Trade parameters on a weekly (Monday-Sunday) Operational Period basis. Short-term Trades are in respect of one weekly Operational Period. A long-term Trade is effectively made up of a number weekly Operational Periods.

Any changes to MUs only come into effect for the following Operational Period. This should be factored in when making changes to Assets and MUs.

4.3 Flexible Power Portal Set Up and Integration

The Flexible Power Portal is the operational platform through which we collect metering data, send Utilisation Instructions and calculate settlement. It is a key part of the operational side of a Trade.

4.3.1 Portal Access

Once the Qualification Tender is complete, You will receive an email to confirm that a Flexible Power Portal account has been created.

The user should then visit; https://flexiblepowerportal.co.uk/ to access the portal.

4.3.2 APIs

An Application Programming Interface (API) is a software intermediary that allows two applications to talk to each other.

The API removes the requirement for dedicated DSO hardware to be connected at an FSP site in order to collect the metering data and receive instructions from a DSOs control systems.

There are a large variety of DER control arrangements, ranging from a single asset such as a standalone generator through to a complex estate with multiple assets or even part of a portfolio under management by

a commercial aggregator. Therefore, FSPs are required to implement their own interface for the API to their DER control.

The Flexible Power APIs covers 3 key areas:

1. The collection of metering from the FSP to the DSO via the readings API. This is built of 2 sub APIs to collect either minute by minute or half hourly metering data. This needs to be built out per MU.
2. The sending of Utilisation Instructions from the DSO to the FSP via the Dispatch API. This needs to be built out per Trade Dispatch Group. Within the signal it will detail the component MU IDs.
3. The sending of an Emergency Stop from the FSP to the DSO via the Stop API. This is implemented at MU level.

In addition to the API process we also accept metering data in the form of a CVS upload. Details for this process can be found in the FAQ section of the Documentation page of the Flexible Power Portal: Flexible Power - Frequently Asked Questions (flexiblepowerportal.co.uk).

The latest definitions of each API, including the surrounding authentication are available on the Flexible Power Portal.

The APIs to be implemented vary depending on the Product and Asset types being utilised. These are summarised in the table below.

	Scheduled Utilisation	**Scheduled Availability, Operational Utilisation**	**Operational Utilisation**
Readings (used for HH or minute by minute metering)	Required (unless providing via CSV upload)	Required (unless providing via CSV upload)	Required (unless providing via CSV upload)
Dispatch (both Start and Stop)	Optional	Optional	Required
Stop (for emergency stop)	Optional	Optional	Optional

It should be noted that for the Readings API, whilst we would prefer to collect data in a near real time stream, we will accept the provision of batched data. This can also be limited to the time periods only associated with utilisation events. **All batched data must be received within 7 working days of operational month end.**

4.3.3 API Testing

Initially the FSP will be set up with just access to the Sandbox zone. This will allow them to understand how the portal works and to test the APIs without impacting on the live zones.

A number of tools are provided within the portal to enable self-testing of the API. This includes the ability to send simulated dispatches and view the latest metering signals received by the portal.

Once a MU has been created, an associated MU will be created on the Flexible Power Portal. MUIDs will be visible for the FSP to set up their APIs. A Trade Dispatch Group will only be created in the Flexible Power Portal post Tender Award.

4.3.4 Viewing Availability Acceptances

Awarded availability and accepted cleared price will be available to view in both Market Gateway and Flexible Power Portal. There may be a lag between the conclusion of the trade and the transfer onto the Flexible Power Portal. The concluded Trades will be loaded into the Flexible Power Portal no later than the start of the first awarded Operational Period.

5.0 Trading

Once the commercial and Technical Qualification aspects are complete (including the 10-day standstill post Contract Award), Trades can be entered into.

5.1 What is a Trade?

A trade is the mechanism used to award service windows. It sets out the detailed requirements for availability (and for some products, utilisation). Once awarded, a Trade will specify the parameters for delivery, service windows, the expected volume of response, the assets involved and the associated price.

Our Trades currently operate across two timeframes: short term (weekly) and long term (annually). Both are procured through our Market Gateway Platform

A Trade consists of 3 sets of data:

- The Trade Opportunity, outlines the DSO's requirements.
- The Trade Response, submitted by FSPs, indicating their availability and offered price to deliver against the requirements
- The Trade Award, confirms the acceptance or rejection of the FSP's response by the DSO, including the specification of awarded parameters.

5.2 Trade Opportunity

A trade opportunity sets out the DSO's needs. This includes the following key data points:

Attribute	Description
Trade Opportunity Reference	The Unique ID for the Trade Opportunity
Trade Opening Date	When the trade opens
Trade Closing Date	When the trade closes
Operational Period	The timeframe in which operational changes can be made (see later section for more detail). By default this will be weekly.
Start Date	When the MW requirement of the trade starts
End Date	When the MW requirement of the trade ends
Ceiling Prices	The maximum price (£/MWh) we are willing to pay
License Area	Distribution License Area
Product Type	The product being purchased Scheduled Utilisation (SU), Scheduled Availability, Operational Utilisation (SAOU) Operational Utilisation (OU)
Service Direction	The direction of the response required. Demand Turn Down (DTD)/Generation Turn Up (GTU) or Demand Turn Up (DTU)/Generation Turn Down (DTD).
Minimum and Maximum KW Requirement	The minimum and maximum volume to be procured in the Trade.
A number of Capacity Requirement Windows	The requirements for capacity over time. Deliver Date, Start and End time.

Table 5.1 Data Points of Trade Opportunities

DSO requirements for flexibility are generally a time series of data over time.

To allow FSPs to the respond we will group the requirements into **Capacity Requirement Windows**. Each Window is comprised of a daily profile of Delivery Periods accompanied by the dates and days the window applies to. The repetition of these windows will change depending on the specific needs of the trade, including the product and the timescales being procured in.

See below a few examples:

Trade Opportunity Example 1: the requirements might be consistent over the duration of the trade. The Delivery Periods would be repeated for each weekday of the entirety of the Scheduled Utilisation Season. As the requirement is consistent across it and responses must cover the entirety of the requirement.

Delivery Period Start Time >=	08:00	16:00
Delivery Period End Time <	12:00	20:00
Minimum Requirement	0	0
Maximum Requirement	1.5	1.5

Table 5.2: Example Scheduled Utilisation Delivery Periods Requirement within Capacity Requirement Window 1

	MON, TUE, WED, THU & FRI
Oct, Nov, Dec, Jan, Feb, Mar	Window 1

Table 5.3: Example Capacity Requirement Windows repetition for a Winter Scheduled Utilisation trade

Trade Opportunity Example 2: The requirements could vary by weekday and month. As such we might have a separate window for each weekday in a month. In addition, the Delivery Periods have been shortened to half hours to give more flexibility in response. This is highlighted in the diagram below.

Delivery Period Start Time >=	07:00	07:30	08:00	08:30	09:00	09:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00
Delivery period End Time <	07:30	08:00	08:30	09:00	09:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30
Minimum Requirement	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Requirement	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Table 5.4: Example long term Scheduled Utilisation Delivery Periods Requirement within Capacity Requirement Window 1

	MON	TUE	WED	THU	FRI	SAT	SUN

April	Window 1	Window 2	Window 3	Window 4	Window 5	Window 6	Window 7
May	Window 8	Window 9	Window 10	Window 11	Window 12	Window 13	Window 14
June	Window 15	Window 16	Window 17	Window 18	Window 19	Window 20	Window 21
July	Window 22	Window 23	Window 24	Window 25	Window 26	Window 27	Window 28
August	Window 28	Window 29	Window 30	Window 31	Window 32	Window 33	Window 34
September	Window 36	Window 37	Window 38	Window 39	Window 40	Window 41	Window 42

Table 5.5: Example Windows repetition for a long term Scheduled Utilisation trade

Some Windows may have repeating requirements, however specifying them individually allows for more tailored responses as set out in the next section.

These are examples only. The specific windows and requirements will be defined in the Trade Opportunity.

5.3 Trade Response

The trade response is the FSPs response to the Trade Opportunity. It includes the following key data points:

Attribute	**Description**
Trade Response ID	The Unique ID for the Trade Response
Trade Opportunity ID	The ID of the associated Trade Opportunity
MU IDs	The Meterable Units Associated with the trade
Price (£/MWh)	The price offered by the FSP
Capacity (MW)	The capacity being offered by the FSP. *It should be noted this will be capped at the “Maximum Requirement”
Availability Declarations Windows (see the detail below)	This is the FSPs response to the windows or requirements in the Trade opportunity

Table 5.6 Data Points of Trade Response

The FSP has the ability to provide an Availability Declaration Windows in response to the DSO’s Capacity Requirement Windows. This availability is copied across the window repetitions. The FSP can declare availability for any combination of the availability windows offered.

See the following example responses:

Trade Response Example 1: the provider may only be available for the evening period. This can be applied to the entire Capacity Requirement Window, which covers the whole season.

Delivery period Start Time >=	08:00	16:00
Delivery period End Time <	12:00	20:00

Available?	No	Yes

Table 5.7: Example Scheduled Utilisation Availability Declaration

Trade Response Example 2: provider may only be available for the early evening on Window 1(Monday), but all day on the Window 2 (Tuesdays).

Delivery period Start Time >=	07:00	07:30	08:00	08:30	09:00	09:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00
Delivery period End Time <	07:30	08:00	08:30	09:00	09:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30
Available?	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No

Table 5.8: Example long term Scheduled Utilisation Availability Declaration Window 1

Delivery period Start Time >=	07:00	07:30	08:00	08:30	09:00	09:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00
Delivery period End Time <	07:30	08:00	08:30	09:00	09:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30
Available?	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 5.9: Example long term Scheduled Utilisation Availability Declaration Window 2

5.4 Trade Award

Following the collation of all Trade Responses by the DSO, and the selection of the services (see later section), the Trade Award is the confirmation of the window of availability accepted by the DSO. It includes the following key data points:

The Trade Award is formed of:

Attribute	Description
Trade Award ID	The Unique ID for the Trade Award
Trade Response ID	The ID of the linked Trade Response
Price	The trade clearing price.
Availability Acceptance window (see example below)	The portion of the availability window accepted by the DSO in response to the FSPs Availability Declaration Window.

Table 5.10 Data Points of Trade Award

The DSO has the right to accept any combination of the Delivery Periods offered in an Availability Declaration Window within the Trade Response.

See the example acceptances below:

Trade Acceptance Example 1: DSO might accept the window made available.

Delivery period Start Time >=	08:00	16:00
Delivery period End Time <	12:00	20:00
Available?	No	Yes
Accepted?	N/A	Yes

Table 5.11: Example Scheduled Utilisation Availability Acceptance Window 1

Trade Acceptance Example 2: the DSO may only accept the availability in the afternoons.

DELIVERY PERIOD START TIME >=	07:00	07:30	08:00	08:30	09:00	09:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00
Delivery period End Time <	07:30	08:00	08:30	09:00	09:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30
Available?	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
Accepted?	No	No	No	No	No	N/A	Yes	Yes	Yes	Yes	Yes	N/A	N/A

Table 5.12: Example long term Scheduled Utilisation Availability Acceptance Window 1

5.5 Managing Trades

A trade is used to lock in key requirements from FSPs and the DSO and clearly set out delivery expectations.

Once a Trade Opportunity closed, the Trade Responses are locked and assessed. The Trade Award is used to confirm the Availability Acceptance Windows, the Meterable Units involved and the technical parameters (as specified in the Trade Response). These cannot be edited post trade.

It should however be noted that whilst the Meterable Units tied to a trade are fixed, it is still possible to edit the assets linked to the Meterable Units. For example, a supplier may want to remove assets which are no longer their customers, and add ones in their place.

This would allow FSPs to manage which assets are being used. After variation, the same response volume with the same availability window is expected, but the baseline values will alter to align with the latest Assets.

5.5.1 Long Term Trade timelines

We currently operate one Long Term Trade cycle per year, procuring services for the following year, Apr-Mar. Each Long Term Trade Cycle will be published in August / September and the Trade Response Window will open in September for 6 weeks, and then we will publish Trade Award decisions 6 weeks later.

In August/September (Exact date announced via our Engagement and Procurement Timetable)	Publish flexibility locations and requirements for; - Scheduled Utilisation

	- Scheduled Availability, Operational Utilisation - Operational Utilisation to the Connected Data Portal
+4 weeks	Trade Opportunities for FSPs open on the Market Gateway
+6 weeks	Deadline for Trade Responses. Launch date +6 weeks
+6 weeks	Trade Awards announced

Table 5.13: Long Term Operational process

Availability Declarations: Following publishing requirements in August, FSPs will be able to submit their availability declarations through Market Gateway. This includes providing details such as the available capacity they can provide, the price and key operational parameters such as maximum and minimum run times.

Acceptance: We publish successful Trades 6 weeks after the close of the Trade Response Window.

Operation: The Trade then becomes operational in line with the awarded service windows.

Full details of requirements will be specified in the Trade Opportunity itself.

5.5.2 Short Term Trade timelines

Short terms trade will continually be available, we will procure them on a week ahead basis;

Every Thursday From midday	Short Term Trade Opportunities open for bids
Every Tuesday By midnight	Deadline for Trade Responses
Every Thursday By midday	Trade Awards announced for delivery from the next Monday

Table 5.14: Short Term Operational process

5.5.3 Joint Utilisation Competition

We have launched the Joint Utilisation Competition (JUC). It allows FSPs who have already had a trade accepted for a longer-term product to bid with a lower utilisation price for the same Meterable Unit within the Short-Term market. The aim is to increase the likelihood of utilisation selection by offering lower pricing in order to remain competitive with wider range of bids received in the short-term market.

5.6 Service Selection

Where competitive markets have developed, resulting in over supply, we will need to select which flexibility assets are accepted and dispatched based on below priority order.

PRIORITY	NAME	MEANING	IMPLEMENTED OPEN NETWORKS PRINCIPLE
1	Technical Integrity	The National Grid Electricity Distribution requirements of Network Integrity, System Frequency Integrity (SD2/ TP1B) shall be met. Where these are dependent on Flexibly Services, these services must meet these requirements.	Security
2	Customer Security	National Grid Electricity Distribution requirements for demand and generator security (SD2) shall be met. Where these are dependent on Flexibility Services, these services must meet these requirements. Opportunities for enhancements to demand and generator security may be used where economic.	Security
3	Value	Flexibility should be procured and operated to carry out the roles of a DSO, in a cost effective manner.	Operability & Cost
4	Market Resilience	Where multiple technically sufficient Flexibility Services are available at a comparable cost, we will share the dispatch of services across these providers.	Competition & Fairness

Table 5.15: Service Selection Priority

We have published information on how we currently make decisions around flexibility service selection and dispatch, including the principles we follow here.

6.0 Settlement Guidance

6.1 Baselining

Baselines are used to establish a counterfactual to assess delivery and enable settlement of services.

We have evolved our baselining methodologies to align as well as possible with our network planning assumptions. This ties in with the core value of flexibility services being the deferral of network reinforcement.
As such we have moved away from historic baselines to more static baselines based on the technology types and metering level of the Assets in the Meterable Unit.

Please see Appendix 1 for more information on how we calculated and apply baselines.

6.2 Performance Monitoring and Payment Mechanics

Through its Open Networks Project, the ENA has recently published Standardised Payment Mechanics for adoption by all UK DNOs. National Grid DSO has implemented these Payment Mechanics for its procurement activities post Sept 2024. Detailed information published by the ENA can be found here.

Each Product procured subject to specified payment mechanic. These are designed to encourage full delivery, whilst balancing the level of penalties to ensure the service provision remains attractive.

Payments are made up of a combination of an Availability payment and/or a Utilisation payment, each product has a mechanism for clawing back under delivery.

The Utilisation payments are assessed on a per metering period (generally 1 minute) basis.

There is a Grace Factor, in which delivery is assumed at 100%. If the output is below this value (e.g., 95% for SU) then a proportion of the payment is removed for every percent of under-delivery. This proportion is determined by the Performance Multiplier.

A summary of the values used is highlighted in the table below;

Attribute	Scheduled Utilisation	Scheduled Availability, Operational Utilisation	Operational Utilisation
Utilisation Grace Factor	5%	5%	0%
Availability Grace Factor	N/A	5%	N/A
Penalisation Multiplier	3	3	2
Payable Over-delivery	0%	0%	0%

. Table 6.1: Key values for the SU, SAOU and OU Payment Mechanic

6.3 Billing Process

As detailed in the

4.3 Flexible Power Portal Set Up **and Integration** section of this guidance, the Flexible Power Portal is used to collect metering data, monitor and pay for delivery.

After the end of each event, a performance report and earning statement is created on the Flexible Power Portal. This allows FSPs to review their results per event. Examples can be found on the Flexible Power Website.

What's new: When logged into your Flexible Power account navigate to; Reports > Event Reports tab. FSPs can now see an additional RAG (Red/Amber/Green) column to help them quickly assess their delivery performance. To receive a summary of monthly performance, simply opt in to the Monthly Invoices email from User Account settings.

At the end of the month, the performance reports are compiled along with the availability payments and reconciliations for any shortfall of delivery into an invoice.

A provisional invoice will be produced on the 1st of every month. The FSP then has 14 days to raise any queries.

The provisional invoice will only be accurate if the FSP has submitted all entering data associated with utilised flexibility events, we encourage FSPs to submit metering with7 days of the operational month end to ensure timely review and any query resolution before the statement is finalised.

If no query is raised within the 14-day window, the portal will generate a final 'Self-Billing' invoice which can be downloaded for financial records. This is processed by the DSO for payment. The payment terms for the invoice is 60 days.

If a query is raised, then the invoice is placed on hold until any concerns have been resolved. We endeavour to complete this within a 14-day window so as to avoid deviating from the standard payment timeline. If this can't be achieved, we will defer the payment to the following months billing cycle.

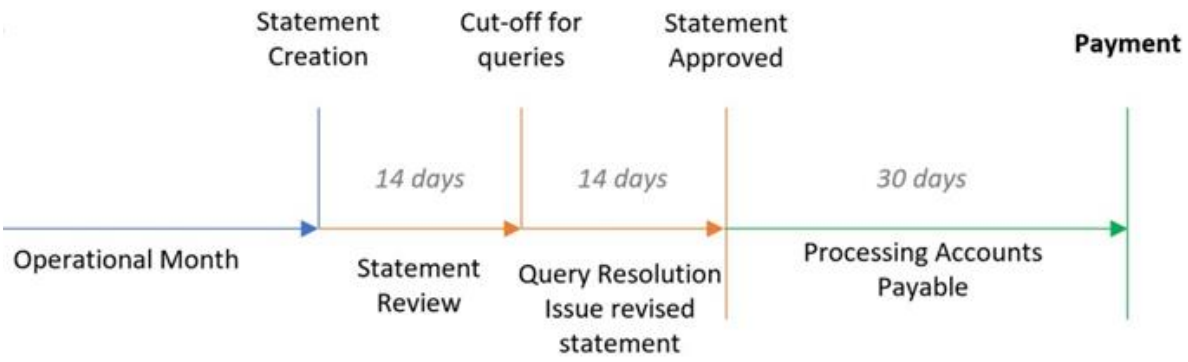


Figure 3.1: Invoicing & payment timeline

The service and payment cycles are based on a calendar month and therefore we operate a total of 12 billing cycles within a year.

7.0 Glossary

TERM	DEFINITION
Application Programme Interface (API)	The means through which National Grid DSO instructs the delivery of services awarded through a Trade Award. The FSP must build an API for each MU it wishes to Trade with prior to entering a Trade Response.
Asset	The smallest entity that we consider on the Market Gateway. It is used to represent the lowest level at which the FSP can meter. This could either be an individual or combination of machines/Low Carbon Technologies depending on the metering location. This is equivalent to a DER in the Service Terms.
Availability Acceptance Window	The response of the DSO to the Availability Acceptance Window specifying when their availability has been accepted.
Availability Declaration Window	The response of an FSP the Capacity Requirement Window specifying when they are available to provide services.
Availability Payments	A payment made in return for being available to provide services.
Capacity Requirement Window	A defined period of time, where the DSO specifies its requirement for services. There may be multiple Capacity Requirement Windows in a Trade
Ceiling Price	The maximum price the DSO is willing to pay.
Commercial Qualification	Required ahead of eligibility to Technical Qualification being made available to FSPs. Encompasses the PIN, PQQ and Overarching Tender.
Contract Award	the letter issued by the Company to the Flexibility Provider to confirm the successful award of an Overarching Contract;
Contract Documents	All documentation completed via the Market Gateway to enable an Overarching Contract Award. Includes, but is not limited to; all sections of the Flexibility Services Standard Agreement, the PQQ, the self-billing agreement and the Contract Award.
Delivery Period	The increment of time within and Capacity Requirement Window.
Delivery Target Threshold	Delivery of the awarded capacity for a DG of equal to or greater than the Delivery Target Threshold (DTT), is awarded the Utilisation payment "at rate" (i.e. the payment % will equate to the delivery %).

DER Level Metering	Metering that covers just the individual DER. This does not include any underlying site load.
Dispatch Group (DG)	The higher level component, made up of one or more MUs and is used for Trade Responses, dispatch and settlement.
DSO	Distribution System Operator. The party procuring services, in the case, National Grid Electricity Distribution (NGED).
Dynamic Purchasing System (DPS)	Our record of all FSPs that have been awarded an Overarching Contract.
Flexibility Service Agreement	The documentation issued by National Grid DSO containing the Terms and Conditions and other associated documentation that FSPs must agree to in order to be awarded an Overarching Contract.
Flexibility Service Provider (FSP)	The entity that will contract with National Grid DSO to provide flexibility services. The FSP could be the owner, operator or appointed third party, responsible for the operation of assets capable of providing flexibility services. All settlement and communication regarding flexibility contract to National Grid DSO, will be direct with the FSP.
Flexibility Services	means, and more particularly described in the Service Terms, the services to be provided by the Flexibility Provider to the Company under and in accordance with this Contract which give the Company the ability to manage the load at a specific point of the Network at certain points in time;
Flexible Power Portal	The operational portal National Grid DSO employs to facilitate all API communication and to calculate settlement and performance.
Grace Factor	A margin of error allowed in respect of under-delivery of the Awarded Capacity of a Trade. Delivery of equal to or greater than the required level of awarded capacity less the applicable Grace Factor is awarded the full Utilisation payment. A deduction from the full payment will be made for delivery of less than the required level of awarded capacity less the applicable Grace Factor.
Market Gateway	The online tool that National Grid DSO has developed to facilitate its procurement of electricity distribution flexibility services.
Meterable Unit (MU)	Made up of one or more flexibility assets behind a single metering feed. Baselining is applied at the Meterable Unit level.
Metering data	The data FSPs are required to provide via API to the Flexible Power Portal to enable calculation of settlement and performance. This must be provided either as minute by minute data, or half hourly data.
Monthly Delivery Proportion	The Availability payments for DG are subject to a monthly reconciliation based on the DGs individual Utilisation performance over the month.
Operational Period	The increment of time within the Operational Period.
Operational Update Cycle	The Cycle in which changes to Assets and MUs are made.

Overarching Contract	An enduring contract awarded to all FSPs who successfully complete the PIN, PQQ and accept all sections of the Flexibility Standard Agreement. The Overarching Contract does not include any delivery commitments, it merely provides eligibility to Trade.
Pay As Clear	A clearing mechanic where all successful bidder are paid the clearing price rather than the price they bid.
Penalisation Multiplier	The Trade Award sets out the expected delivery of a DG. For every % point under that level, a fixed proportion as set out in Chapter 4, called the Penalisation Multiplier of the full payment is deducted.
Periodic Indicative Notice (PIN)	The method through which National Grid DSO publishes it procurement intentions on the government tendering platform. FSPs must respond to the Pin via the Marked Gateway to ensure our procurement activity complies will all relevant procurement law.
Point of Connection Metering	Metering at the Point of Connection. This inherently incorporates any DER and any embedded site demand.
Pre-qualification Questionnaire (PQQ)	A part of the commercial pre-qualification process, all FSPs are required to complete the PQQ to allow the award of an Overarching Contract.
Product	Flexibility Products as described in Chapter 2.
Qualification Tender	The one-off tender through which an Overarching Contract is awarded.
Supplier Details Form	The document issued by National Grid DSO in order to collect billing information from FSPs
Technical Qualification	Required ahead of eligibility to Trade being made available to FSPs who have been awarded an Overarching Contract. Encompasses the registration of Assets, the allocation of assets to MUs and DGs and the API build
Tender	Each Trade is effectively, a Tender. Tender outcomes are notified through the Trade Award.
Trade	FSPs who are successfully awarded an Overarching Tender, will be eligible to Trade. A Trade encompasses; Trade Opportunities, Trade Response and Trade Award
Trade Award	The accepted technical (capacity, service windows) and commercial (price) parameters National Grid DSO accept from the FSPs Trade Response. A Trade award is the binding agreement which the FSP is required to deliver against.
Trade Dispatch Group (DG)	The higher level component, made up of one or more MUs and is used for Trade Responses, dispatch and settlement.
Trade Opportunities	National Grid DSO's flexibility requirements. Published on the Market Gateway, with functionality available for FSPs to provide a Trade Response.
Trade Response	The technical (assets, volume & time) and commercial (price) parameters an FSP can offer against a Trade Opportunity.

Utilities Contract Regulations (UCR)	The procurement regulations with which National Grids DSO procurement processes must comply.

8.0 Appendix 1 – Baseline Methodology Guidance

8.1 What is a baseline

A baseline is the established level of DER base load from which a delta is measured to determine the level of service delivered.

Baselines are fundamental to the delivery of flexibility services, they;

- set the level of delivery expectation
- set the level for delivery verification,
- allow delivery quantification to enable settlement of services.

We recognise that a fair, justifiable and transparent approach to its adopted baseline methodologies is necessary to ensure the success of its flexibility programme.

8.2 Different Types of Baselines

As set-out in further in the 6.1 Baselining section of this guidance there are four types of baselines currently available;

1. Zero,
2. Asset capacity,
3. Self-nominated based on historic demand, and,
4. Fixed, based on planning profiles.

Which baseline is applicable will depend on the technology type of the asset, we will assign the correct baseline upon asset registration. Technology baseline tables to support your understanding are published here.

This document provides the latest methodology for their calculation.

The FSP must register its assets through the Market Gateway and receive confirmation of their validity before their applicable baseline option(s) is confirmed.

We reserve the right to update the baseline options and the methodology for the calculations.

8.2.1 Zero baselines

As the name suggest, for a Zero baseline, we assume an output of 0kW.

8.2.2 Asset Capacity baselines

For an Asset Capacity baseline we set the baseline to capacity of the asset/DER provided as part of the registration process.

8.2.3 Self-Nominated Baselines - How the baseline is calculated

The self-nominated baseline is calculated by the provider using the following parameters in respect of their historic demand data.

Calculation Frequency	Monthly – for submission by the second last Tuesday of each month
Calculation applicability	From the First Monday of each month
Calculation type	Single value average
Metering data requirements	Minute by minute, or if allowable half hourly.
Data Window	DTU/GTD: 10am – 3pm weekdays DTD/GTU: 3pm – 8pm weekdays
Data History	The previous 4 weeks
Data exclusions	The FSP may remove data that relates to prior utilisation events

8.2.4 Fixed Baselines, Based on Planning Profiles – How the baseline is calculated

Variable Name	**Description**	**Symbol**	**Units**	**Source**
Metering Location	The metering location of the individual asset, forming the Meterable Unit for operational and baseline calculation purposes. Point of Connection (PoC) or DER Level Metering (DLM).	M_L	-	*FSP Provided*
Baseline Season	The season for which the baseline is calculated and operationally applied. Summer or Winter as defined below.	T_{season}	-	*FSP Provided*
Number of Assets	The number of assets in the Meterable Unit (MU).	N	-	*FSP Provided*
Baseline Power	The assigned value of power for the respective baseline. The baseline power is a function of Metering Location and Baseline Season.	B_P	*kW*	*DSO Calculated*
Meterable Unit Baseline Power	The baseline power, calculated and operationally applied, to a Meterable Unit (MU).	B_{MU}	*kW*	*DSO Calculated*

We calculate the assigned Baseline Power Values for DER Level Metered and PoC Metered DER types using profile data from the Customer Behaviour Assumptions Report which is published annually as part of the their annual Distribution Future Energy Scenarios (DFES) Study.

The assigned Baseline Power Values are updated periodically to include the latest profile data from each DFES publication. We will publish the assigned Baseline Power Values here; NGED Baseline Values and will update them annually for the operational period Apr-Mar.

Below table provides samples of baseline values for an import response.

Metering Location M_L	Season T_{season}	Baseline (kW) $B_P(M_L, T_{season})$
Point of Connection, *PoC*	Winter	-2.06
Point of Connection, *PoC*	Summer	-1.40
DER Level Metering, D*LM*	Winter	-1.28
DER Level Metering, *DLM*	Summer	-0.83

The application of these figures will apply to services delivered within the following inclusive calendar weeks;

- Summer; week 13 (Apr) – week 38 (Sep)
- Winter; week 39 (Oct) – week 12 (Mar)
-

8.3 Calculating the baseline

To calculate the baseline for each MU, the following calculation is applied;

$$B_{MU} = \sum_{i=1}^{N} B_P(M_L, T_{season})_i$$

Equation 1 - Meterable Unit Baseline Equation

8.3.1 Example

In this example we'll calculate the summer baseline power for a MU consisting of two Point of Connection metered assets and one DER Level Metered asset.

$$B_{MU} = \sum_{i=1}^{3} B_P(M_L, T_{season})_i = B_P(PoC, Summer)_1 + B_P(PoC, Summer)_2 + B_P(ALM, Summer)_3$$

$$B_{MU} = \sum_{i=1}^{3} B_P(M_L, T_{season})_i = (-1.40) + (-1.40) + (-0.83)$$

$$B_{MU} = -3.63\ kW$$

Equation 2 – Example of Meterable Unit Baseline Calculation

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