

FLEXIBILITY DISPATCH FRAMEWORK

April 2026

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1 Introduction and purpose

The purpose of this document is to outline the framework used for dispatching flexibility services on the UK Power Networks distribution network.

Within the DSO Role 2: Network Operation, Ofgem has defined one of the two activities as “2.2. Facilitate efficient dispatch of distribution flexibility services.” As part of this, Ofgem has set out four clear baseline expectations in the DSO incentive guidance document that provide guiding principles to this framework. The main guiding principle for the decision-making framework is as follows:

“DNOs to have and regularly review a decision-making framework for when DER are instructed to dispatch in real-time. The decision-making process, including alternatives considered, should be transparent. This should promote coordination across services (including curtailment as part of non-firm connection agreements and ESO flexibility services), maximise liquidity, avoid market fragmentation and ensure dispatch results in the best outcome for the whole system; this includes service provision to the GB System Operator and other distribution networks. As part of this decision-making framework, there must be rules in place for coordinating dispatch instructions for DSO and ESO flexibility services. This could be through primacy rules or more comprehensive optimisation processes that better enable stacking of revenues for DER. The rules should be transparent, objective, and promote whole system efficiencies.”

This document has been produced following input from the DSO Flexibility Markets team, the DSO Operations team and external Flexibility Service providers to ensure that the Dispatch Framework is as transparent as possible and serves the interests of both the DNO distribution network and the end consumer.

2 Scope

This document applies to the dispatch of flexibility services on all voltage levels within all three license areas of UK Power Networks.

3 Objective

To clearly document the processes taken when dispatching flexibility services, ensuring openness and transparency in all decisions, and to use the most cost-effective options to benefit the end consumer while maintaining our obligation to run a safe and secure network.

4 References

References

Reference	Link to reference
Ofgem DSO incentive guidance document	Link
DERMS documents	Link
MW Dispatch	Link
DER connection requirements	Link

5 Definitions

Definitions

Term	Definition
Outage Flex	A service to provide support to UK Power Networks' distribution network following a fault outage and to support a planned outage on the network.
Scheduled Availability and Operational Utilisation (SAOU)	A flexibility product for which providers are paid to be available during fixed service windows and only dispatched when needed to resolve operational constraints that occur within the service window. Specific months of the year and windows during the day are identified, and the flexibility provider receives an availability fee (£/MW/h) in return for

	guaranteeing availability for the service periods. The flexibility provider is also paid a utilisation fee (£/MWh) for the energy delivered following each utilisation instruction. Utilisation instructions are issued day-ahead. Utilisation instructions are issued at day-ahead.
Day-ahead Scheduled Utilisation	A flexibility product for which providers are paid a utilisation fee (£/MWh) for the change in energy delivered. Flexibility providers participate by providing offers of flexibility in daily auctions. They can update the available capacity and utilisation fee at any time up to 12:00 pm day-ahead. Providers are notified of the dispatch instruction by 13:30 day-ahead, to maximise their opportunity to also participate in other day-ahead and within-day flexibility services.
Long-term Scheduled Utilisation	A flexibility product for which providers are paid a utilisation fee (£/MWh) to reduce their demand or increase their generation for the duration of the contracted windows. UK Power Networks makes a long-term commitment to paying for the service while providers commit to regular delivery over a sustained period.
ANM	Active Network Management System
BM	Balancing Mechanism – National Grid ESO primary tool to balance supply and demand on the GB network.
DER	Distributed Energy Resource
DERMS	Distributed Energy Resource Management System – the current automatic network management scheme that UK Power Networks uses to manage curtailable customers.
DNO	Distribution Network Operator
DSO	Distribution System Operator
Flexible connection	A DER that is connected under a flexible contract where they can be curtailed due to network conditions and DER's that are connected under a Technical Limits agreement.
Flexibility provider	A provider that has signed up to deliver a service to the Distribution System Operator or Electricity System Operator
Flexibility services	Commercial agreements with connected customers, to help the Distribution System Operator to manage local electricity flows
FU	Flexible Unit
LIFO	Last in, first off curtailment order for flexibly connected DERs
Network Vision	The UK Power Networks outage planning software tool
NESO	National Energy System Operator

6 Responsibilities

UK Power Networks' DSO Flexibility Markets Team is responsible for procuring all long-term flexibility services within the UK Power Networks footprint.

The DSO Operations team is responsible for dispatching procured services (including day-ahead flexibility) within the framework of this document.

7 Records

All dispatches are recorded, and a monthly report is uploaded to the UK Power Networks open data portal.

8 Process detail

8.1 Dispatch

8.1.1 Overview

When looking to dispatch flexibility services, the DSO Operations Power Systems Engineer will use all available information to decide whether the service is needed and which service is required. This will consider the current running arrangement of the network, the voltage level where the service is required, and any interaction with ANM services. The process has the following components:

- Forecasting (Automated process)
 - Weather
 - Constraint breaches
- Identification of Need (Manual and automated process)
 - Constraint to be dispatched against
 - Current network running conditions
 - NESO requirements
- Selection of Flexible Units (Automated)
- Dispatch (Automated and Manual)

8.1.2 2026 Dispatch Framework Consultation.

Following the 2026 Flexibility Dispatch Framework Consultation, Flexibility providers told us that the current framework was clear and fit for purpose. In addition, they also told us that at this stage there is no need for any changes to be made over what was in the 2025 version.

8.1.3 Forecasting and identification of network need

For each point on the high voltage network where UK Power Networks expects congestion and dispatch of flexibility services, it configures an automated short-term forecast. This forecast considers recent utilisation of the network along with local weather forecasts. Where utilisation variability is high, or data quality is low, UK Power Networks may configure a more risk-averse forecast.

All procured flexibility dispatch, except for dispatch procured the day ahead, will be checked against network conditions at the week-ahead point. The DSO Operational Planner will use forecast data for curtailment, constraints, and weather to check if there is still a potential need for the service.

If the study identifies that there is still a requirement for flexibility, then the network will again be studied the day before. If it is determined that a service will be required, then that service will be made available to the DSO Power Systems Engineer for consideration for dispatch.

If, after studies, it is deemed there is not enough information to decide whether a service is required or not, the DSO Operational Planner and/or the DSO Power Systems Engineer will make the service unavailable for dispatch.

Considering all the above, flexible units that have been contracted to provide a service, and that have declared capability, will be dispatched using the following framework:

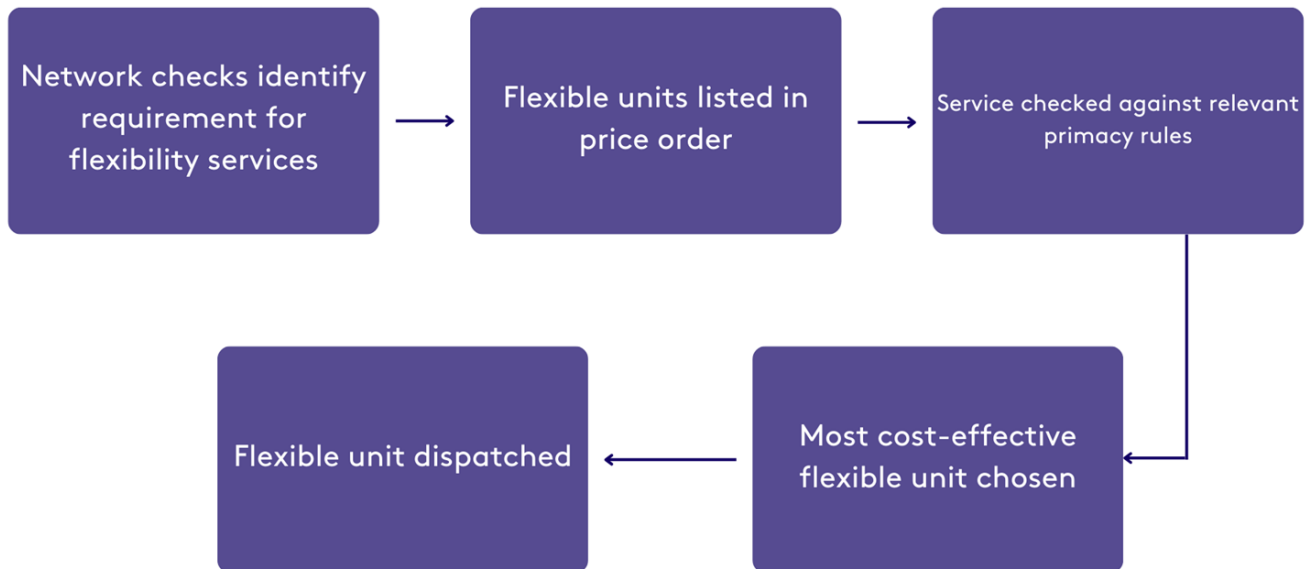


Figure 1- Forecasted Need Framework

Following the above process, a dispatch will pass the following criteria:

- Is the network need identified at the time of procurement still valid?
- Following primacy rules, are any units disqualified based on another service?
- If so, what units are available and what is the cost of each unit?
 - Once network needs are uploaded to the LocalFlex platform, an auction is created and cleared as detailed in section 8.11.
 - Once the most cost-effective unit has been chosen, it will be scheduled for dispatch.

Managing conflicts of services

8.1.4 Managing Conflicts of Flexibility Services with Flexible Connections

Where dispatching a FU in an area controlled by an ANM solution, the DSO Power Systems Engineer shall consider the implications of that dispatch. For example, in an ANM zone with a network constraint, generation turn-down by the FU may be counteracted by another DER within the LIFO stack, meaning the net effect of dispatch is zero. In this case, the DSO Operational Planner will study the network to see what effect any service may have. If the above scenario occurs, that unit will not be dispatched, and another unit may be chosen, even if that unit is procured at a higher price.

To ensure transparency and openness with the flexibility dispatch process, a monthly report of all dispatches is produced and published on the UK Power Networks Open Data Portal. The dispatch report summarises all dispatches made within that month.

8.1.5 Primacy

Primacy determines who has priority over the dispatch of generation and covers both distribution requirements and the requirements of the national system managed by NESO. It should also be noted that there is currently work being undertaken in conjunction with all DNOs, NESO, FSPs, and the ENA as part of the Open Networks programme to develop a common set of primacy rules. For this document, the primacy rules used are those agreed in the ENA document, 'Primacy Draft Rules Increment 1'. This document will be updated as these rules are developed and published.

The Primacy Rules currently in place through the ENA Primacy Rules Framework (January 2025) cover the potential conflict between:

- DSO flexibility services and Transmission Connection Management (TCM)
- DSO flexibility services and the Balancing Mechanism (BM)

In principle, primacy rules with DNO primacy are preferred. This is the result of the ENA primacy workstream and is consistent across all DNOs and the ESO. In effect, the DNO has the first right to flexible units dispatching on its system. This is due to the local nature of DSO flexibility and the limited alternative options compared to NESO, which has a much wider pool of resources to call upon to resolve network constraints.

The DSO Operations Power System Engineer should be aware of the relevant primacy rules when deciding to dispatch a flexibility service or not. This ensures that the division between market/price-driven actions and the electricity system hierarchy of operational needs is clear and transparent.

8.1.6 Unavailability

If UK Power Networks becomes aware of the unavailability of a DER due to planned maintenance, fault, or planned outage, they will mark that site as unavailable within the Network Vision tool or the Strata dispatch platform. This will then show to NESO via an automated report that the particular site is unavailable to be dispatched for their service.

Managing services

8.1.7 Day ahead flexibility procurement

UK Power Networks DSO clearing logic for the day ahead flexibility market is detailed in the document – Flexibility Market Clearing Logic which is published at <https://d11f1oz5vvd9r.cloudfront.net/app/uploads/2025/03/Flexibility-Market-Clearing-Logic-V1.0.pdf>

Day-ahead flexibility procurement is when flexibility services are procured the day before the need and can be accessed up to 12:00 day-ahead. Day-ahead flexibility procurement is used for two main purposes: 1) To deliver the best solution that provides the best value for customers, and 2) Introducing additional price competition in cases of generation turn-up and generation turn-down.

Day-ahead flexibility procurement also allows flexibility providers to bid into additional services to the ESO by introducing additional markets to participate in. A FU will be dispatched by 13:30 day-ahead.

When we procure flexibility services at day-ahead, the dispatch decision is communicated as part of the auction results and follows the below flow.

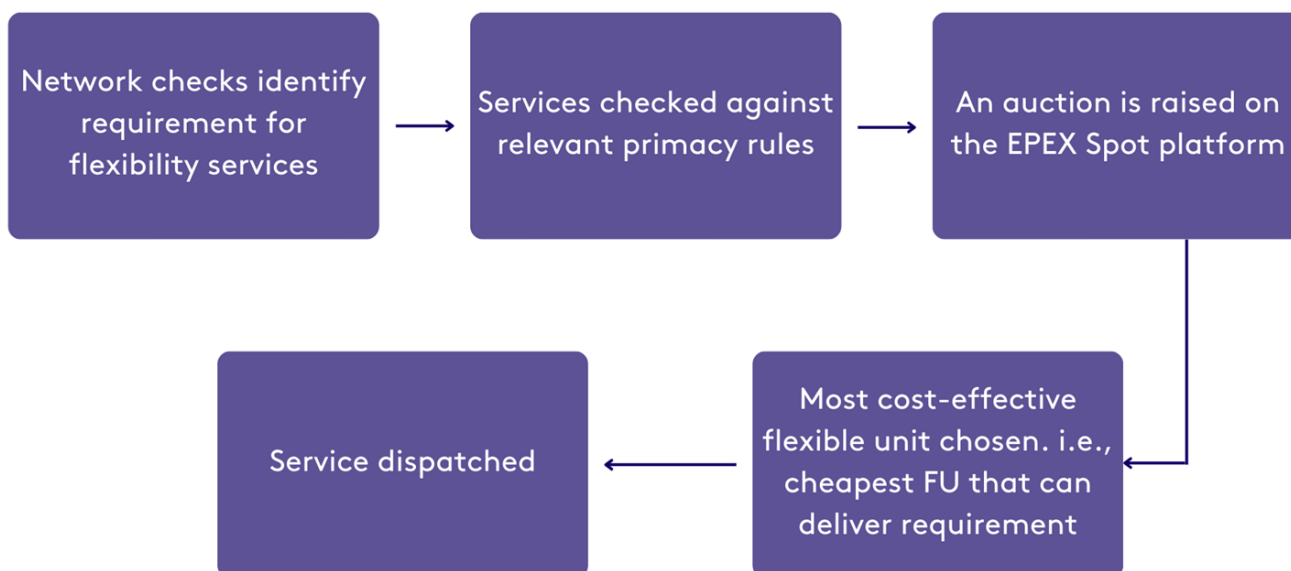


Figure 2- Day ahead Dispatch

8.1.8 Dispatch instruction

There are four ways for providers to be instructed to dispatch:

- **Email:** This provides a simple entry point for new providers who are not yet ready for integration.
- **Localflex API:** For UK Power Networks flexibility services.
- **STRATA API:** For UK Power Networks flexibility services and MW Dispatch.
- **Phone call:** Typically, only for outage flexibility.

8.1.9 Selection of Flexible Units

FUs are chosen using the following process:

The auction is cleared for each half-hourly market period (for long-term windows we currently assess the entire block but may choose to go down to half-hourly periods in the near future), based on minimising the cost of meeting the required capacity. Offers above the max price are rejected. If the total remaining offered capacity is less than the zone requirement, then all offers are accepted. Where more capacity is offered than required, then:

- Offers are accepted in order from lowest priced to highest priced to meet the required capacity.
- A lower priced offer may be rejected, and a higher priced offer accepted, if it results in lower overall costs of meeting the required capacity. This can occur if lower priced offer(s) have limitations on partial acceptances which, if accepted,

would require accepting more capacity than required, and alternative offer(s) of less capacity are available at a higher price and hence lower cost.

- Where two or more offers are at the same price, offers are accepted on a first-submitted-first-selected basis for day-ahead bids.

8.1.10 Outage flex

When a planned outage or fault reduces the network security of the distribution network, flexibility services may be procured to provide a service post-fault. An example of such a need is a three-transformer site that, due to a fault or planned outage, is reduced to two. To secure the network for the loss of a second transformer, a service such as demand turn-down or generation turn-up may be required. In the case of the loss of the second transformer, the units will be dispatched.

Due to the nature of the requirement, the DSO Power Systems Engineer will dispatch any procured generation as soon as possible, ensuring that those units dispatched are the most suitable units and dispatched in price merit order. For example, where there are multiple units available, the DSO Power Systems Engineer will check to ensure they are suitable and then dispatch in price order until sufficient capacity is reached.

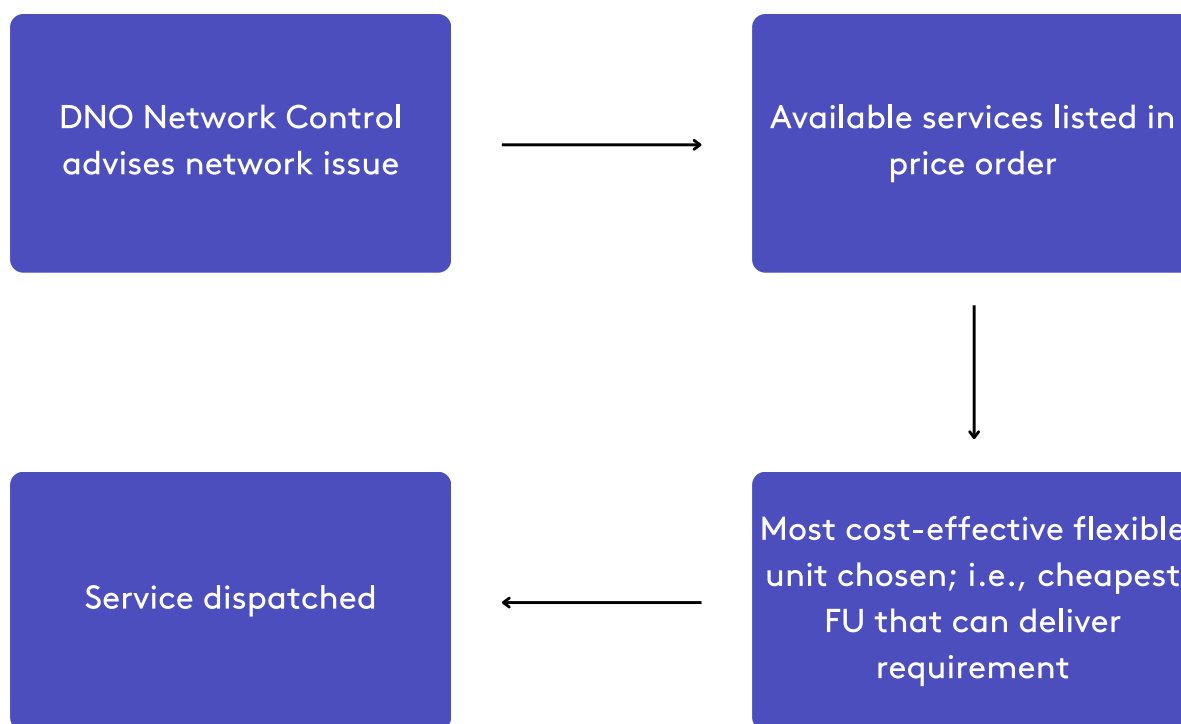


Figure 3 - Dispatching flexibility for outages

Post dispatch

Following a dispatch service, the DSO Operations team provides a regular report with unit, times, and amount dispatched to the DSO Flex Markets team to enable payments to be made to the flexibility provider. This report will be published externally on the UK Power Networks Open Data Portal.

Currently dispatches are uploaded to the Open Data Portal daily.

Other services

8.1.11 Megawatt Dispatch service

There are times when UK Power Networks may dispatch flexible units on behalf of NESO for services such as Megawatt Dispatch (MWD) and as part of enhanced DSO – GB System Operator communication. In the case of MWD service, the implementation of primacy rules in the Minimum Viable Product (MVP) solution will be primarily based on UK Power Networks implementing the rules as agreed at the ENA WS1A P5 in Q1 2023. This entails submitting the DER unavailability reporting activity to NESO both in the planning and operational timescales. NESO will provide UK Power Networks with a list of FUs that have signed up for NESO's TCM service. The MWD project is in the operational trials stage at the time of writing this document, but the agreed principles for the whole electricity system coordination are summarised below, followed by a T-D data exchange diagram:

Planning Timescale

UK Power Networks is implementing the primacy rules via the weekly DER unavailability report submission to NESO with a 3-week look-ahead view. This will be performed by carrying out network studies at the 3-week ahead mark to determine if any dispatch of a FU under MWD will affect or be counteracted by any ANM scheme that it has connected to the network. In this scenario, any unit that will be countermanded by ANM (i.e., a turn-down of a unit under MWD may allow another site lower down on the LIFO stack to generate more) will be marked as unavailable. The DERs with a likelihood of conflict with the following services/activities will be indicated as unavailable to the ESO for the MW Dispatch service:

- Flexibility Services Procurement
- DNO Planned Outage
- DER Outage Declaration

Day-Ahead Timescales

UK Power Networks will also provide operational reports twice a day that will include more accurate DER unavailability information to enable more efficient DER scheduling by NESO and hence, a more efficient implementation of primacy rules. NESO is sharing day-ahead information that includes potential merit order for DER dispatch and indication of constraints that could be active the following day. This information will enable UK Power Networks to implement primacy rules more accurately during the day-ahead and intra-day timescales by assessing T&D conflicts due to unplanned events or outages on the day. On one hand, this will improve the reliability of distribution networks, and on the other hand, this will enable us to take a less conservative approach in producing the weekly DER unavailability report, thereby increasing DER participation in the ESO market.

Intra-Day Timescales

By 18:00 hrs day-ahead, NESO will provide UK Power Networks with an indication of a need to dispatch. This will be updated intra-day. At the point NESO requires dispatch, they will confirm dispatch instructions to UK Power Networks, who will then send the dispatch signal to the FU.

Real-Time Timescales

If at any time, a FU becomes unavailable, then UK Power Networks will mark that unit as unavailable and inform NESO using a real-time unavailability flag in Network Vision or on the SGS Strata platform.

NESO will use all the data shared by UK Power Networks to decide the merit on which they will schedule and dispatch DER from planning to operational timescales. NESO will send DER dispatch instructions to UK Power Networks via Web-API link, and the DER dispatch will be implemented via the common dispatch infrastructure used for the dispatch of distribution flexibility services. The MVP solution will also include a 10-minute safety window between the NESO dispatch instruction and the start of the DER service delivery. This is aimed to increase confidence in "expected network behaviour" when UK Power Networks Control Engineers are dealing with unplanned events or faults, and it will be assessed as part of MVP.

In the case of MWD, UK Power Networks reserves the right to cease or reject the instruction at any time if they believe that continuing with the service will be detrimental to the stability of the distribution network.

The pioneering Transmission – Distribution (T-D) data exchange initiative has been formalised with a signed bilateral agreement between NESO and UK Power Networks, known as the Data Exchange Protocol (DEP). The diagram below illustrates the bilateral data exchanges implemented from 3 weeks ahead to day-ahead and intra-day time horizons.

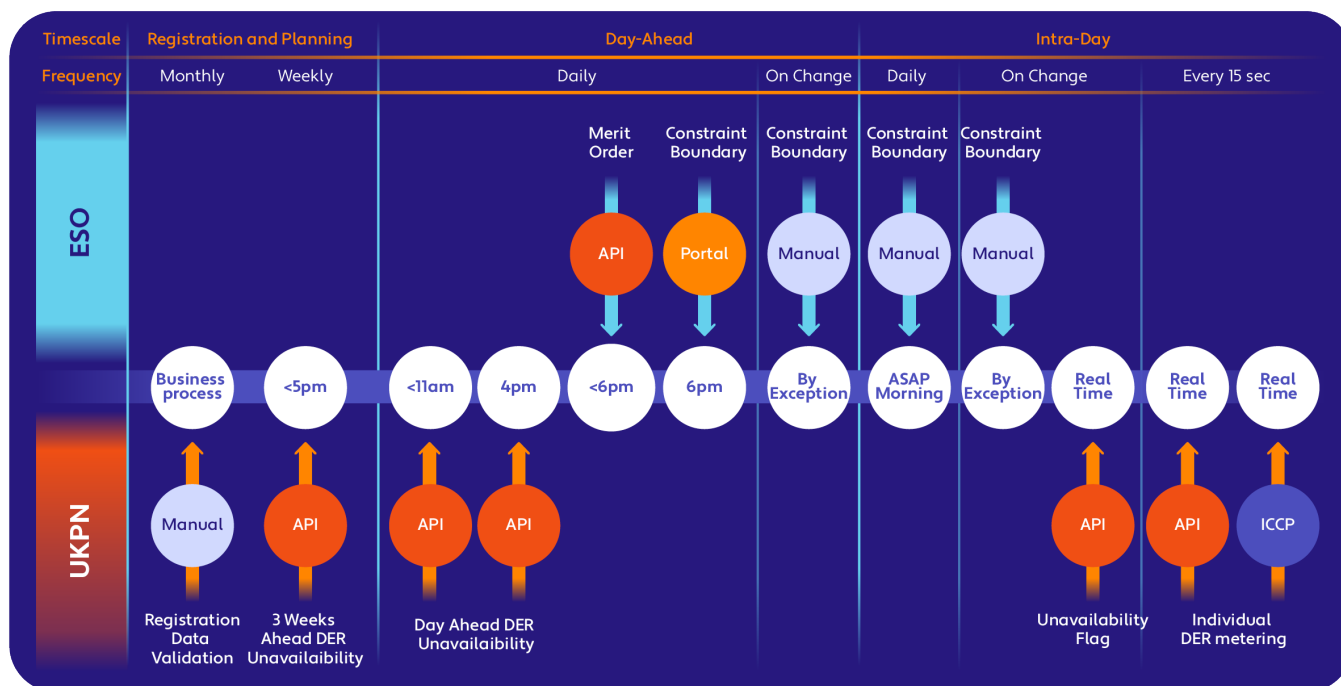


Figure 4- Megawatt Dispatch

8.2 Other circumstances

It is recognised that there may be occasions when flexibility is required to be dispatched that do not follow the above processes. This may include, but is not limited to, events such as testing or fulfilling contracted requirements on minimum dispatch times. In these circumstances, the DSO Power Systems Engineer, in conjunction with the DSO Flexibility Markets team, will work with the flexibility provider to determine the best time to dispatch, ensuring that primacy rules and network security take precedence over anything else.

9 Links

UK power Networks DSO publishes a variety of information which feeds into our processes. Some of the data can be found at the following sites:

- Download our flexibility dispatch records [here](#).
- Visit the UK Power Networks DSO website [here](#).
- Explore our Distribution Network Options Assessment (DNOA) [here](#).
- Explore the Flexibility tender data [here](#).
- Explore our Distribution Future Energy Scenarios (DFES) [here](#).
- Explore our Network Operational Data [here](#).
- Explore our Long Term Development Statement (LTDS) [here](#).
- Explore our network constraint breaches [here](#).
- UK Power Networks DSO Flexibility Market Clearing Logic [here](#)

Flexibility Dispatch Framework

April 2026



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In addition, there are many other data sets that are available on our Open Data Portal. This is free to access and can be found [here](#).

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