SP Electricity North West

# Flexibility Services Autumn 2025

## Appendix 2 - Technical Specification

DSO

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# 1. Definitions

**Accepted Availability Window** where services have been contracted to include variable availability, the Accepted Availability Window is the period required for Service provision to be made available following the agreement between the Company and Provider during the Availability Refinement Period. If a Service does not have an Availability Refinement Period, then this Accepted Availability Window is defined within the Contract Award and is equal to the Service Window.

**Actual Response Time** means the *actual* period of time (in minutes) that elapses from dispatch of Flexibility Services by the Company or issue of a Utilisation Instruction by the Company (as relevant) to achieving the Contracted Capacity or Requested MW (as relevant) at the relevant Site(s) / Group in connection with the Service.

**Adjusted Response Time** is the maximum period of time (in minutes) which is permitted to elapse from an *adjusted* instruction of Flexibility Services by the Company or issue of an *adjusted* Utilisation Instruction by the Company (as relevant) to achieving the Adjusted Requested MW at the relevant Site(s) / Group in connection with the Service. If the Site receives an *adjusted* instruction from the Company to dispatch more or less kW, the Adjusted Response Time would start from the minute the Company issued the *adjusted* instruction and would have the same duration as the Contracted Response Time.

**Adjusted Requested MW** means the adjusted volume of capacity (in MW) that the Company requested the Provider to deliver for Utilisation Service provision, following an initial request for a different volume of Requested MW. The Adjusted Requested MW can be either higher or lower than the Requested MW. The Adjusted Requested MW cannot be higher than the Contracted Capacity or the Agreed Availability Capacity determined in the Availability Refinement Period (as relevant).

**Adjusted Utilisation Instruction** means a new instruction (notice) issued by the Company to the Provider to deliver Flexibility Services, following the issue of the initial Utilisation Instruction. The Adjusted Requested MW can be either higher or lower than the Requested MW.

**Agreed Availability Capacity** means the volume of capacity required (measured in MW) to be made available for Service provision following the agreement between the Company and the Provider during the Availability Refinement Period, where applicable. For Pre-Scheduled Services, the Agreed Availability Capacity is not applicable.

**Applications Programming Interface (API)** is a set of functions and procedures allowing the creation of applications that access the features or data of an operating system, application, or other service.

**"Availability"** or **"Available"** means that the Flexibility Services are available to be delivered to the Company for the duration of the Service Window or Accepted Availability Window (as relevant).

**Availability Payment** means the payment made by the Company to the Provider for making the Site Available over the Service Window or Accepted Availability Window (as relevant). The amount of the Availability Payment is calculated based on the Availability Fee (in MW/h) in

accordance with the provisions of the Service Terms of this Agreement, and may be subject to penalties in case of Provider's under-delivery.

**Availability Refinement Period** is a period defined within product parameters where a refinement of the Availability Window and Agreed Availability Capacity is determined. For Pre-Scheduled Services, the Availability Refinement Period is not applicable.

**Bidder** is the owner and/or operator of assets or has entered into arrangements for rights in respect of third party owned assets that have the capability to provide Flexibility Services, and is participating in the Company's Flexibility Services Invitation to Tender offering to make available each Accessible Site for the provision of such Flexibility Services.

**Charge(s)** means the Availability Payments and the Utilisation Payments, as applicable.

**Company** means SP Electricity North West.

**Constraint Management Zone (CMZ)** means a defined area of the distribution network where Flexibility Services are used to manage local network constraints without the need for immediate reinforcement. CMZs are included in SP Electricity North West's Flexibility services tenders, enabling Providers to offer Flexibility Services that support constraint management in return for payment.

**Contracted Capacity** means the committed target net MW to be delivered by a Flexible Resource at a Site(s) / Group which is allocated by the Company for Flexibility Services which is to be agreed and documented within the Flexibility Services contract.

**Contracted Response Time** means the *committed* Response Time which is to be agreed and documented within the Flexibility Services contract. It is the maximum period of time (in minutes) which is permitted to elapse from dispatch of Flexibility Services by the Company or issue of a Utilisation Instruction by the Company (as relevant) to achieving the Contracted Capacity or Requested MW (as relevant) at the relevant Site(s) / Group in connection with the Service.

**Delivered MW** (measured in MW) means:

a) for dispatchable services: the delivery of Utilisation over the Utilisation Period, following an instruction (notice) issued by the Company to the Provider to deliver Flexibility Services; or

b) for pre-scheduled services: the Service utilised for the full Contracted Capacity during the full contracted Service Window.

**Demand** means the demand (in MW) of Active Power consumed by Plant and/or Apparatus.

**Distributed Energy Resource (DER)** means resources like generators, consumers, and electricity storage connected to the distribution network.

**Distributed Generation (DG)** means a generator connected to the distribution network.

**Distribution Network Operator (DNO)** means the owner and operator of a distribution network licensed by the Gas and Electricity Markets Authority.

**Electricity Storage** in the electricity system is the conversion of electrical energy in a form of energy which can be stored, the storing of that energy, and the subsequent reconversion of that energy back into electrical energy.

**Flexible Resource** means electricity resources like generators, consumers, and Electricity Storage connected to the distribution network.

**Flexibility Services (or Services)** means the provision of a change in import and/or export when instructed by the Company. This is also sometimes referred to as demand side response.

**Generation** means the electrical output (in MW) of any apparatus which produces electricity.

**Grace Factor** is a tolerance (expressed in %) which is applied to the MW of Flexibility Services delivered by the Provider compared to the MW of Flexibility Services requested by the Company; if the delivered % of MW is within this tolerance then full payment is made for each minute of delivery.

**Group** means a group of sites being aggregated to offer Flexibility Services.

**High voltage (HV)** means the voltages of 6.6kV or 11kV in SP Electricity North West's distribution network.

**Low voltage (LV)** means the voltages of 400V / 230V in SP Electricity North West's distribution network.

**Manual Override** means the inhibit switch installed at each Provider Site(s) / Group which may be operated to prevent the dispatch of Flexibility Services by the Company.

**Maximum Response Time** is a pre-defined period defined within the product parameters and means the maximum possible Contracted Response Time that Providers can declare in their contract. For Dispatchable Services (Operational Utilisation and Variable Availability + Operational Utilisation), the Maximum Response Time is 15 minutes. For Pre-Scheduled Services (Peak Reduction and Scheduled Availability), there is no Maximum Response Time.

**Minimum Utilisation Time** means the pre-defined minimum duration that a Flexible Resource should guarantee they can deliver Flexibility Services for when dispatched. The Company however may choose to issue dispatch instructions for shorter periods. In such cases, providers will only be paid for the actual duration and level of response requested and delivered, rather than the full Minimum Utilisation Time.

**Network Management Hub** means the Company control facility from where the network is monitored and managed.

**Performance Multiplier** means the factor by which any percentage of under delivery below the grace factor will be multiplied by in order to calculate payable delivery.

**Policies** means any instructions, rules or policies issued by the Company from time to time.

**Post-fault condition** means the situation where the distribution network is operating abnormally, generally following the disconnection and isolation of a section of the network due to an electrical fault on that section of network.

**Provider** is the owner and/or operator of assets, or has entered into arrangements for rights in respect of third party owned assets that have the capability to provide Flexibility Services and

has signed an agreement to make available each Site for the provision of such Flexibility Services, for example through aggregated or individual assets.

**Recovery Period** means the minimum time (in minutes) required between the end of a Flexibility Service delivery window and the commencement of the next Flexibility Service delivery window for a Flexibility Service to recover from provision of Flexibility Services. This would include the necessary period for re-fuelling of generators or re-charging of batteries.

**Response Time** means the maximum period of time (in minutes) which is permitted to elapse from dispatch of Flexibility Services by the Company or issue of a Utilisation Instruction by the Company (as relevant) to achieving the Contracted Capacity or Requested MW (as relevant) at the relevant Site(s) / Group in connection with the Service.

**Requested Availability Capacity** means the volume of capacity requested (measured in MW) by the Company to be made available for Service provision from the Provider during the Availability Refinement Period, where applicable. For Pre-Scheduled Services, the Requested Availability Capacity is not applicable.

**Requested End Time** means the date and time (to the nearest minute) at which the requested MW is no longer required to be delivered.

**Requested MW** means the volume of capacity (in MW) that the Company requested the Provider to deliver for Utilisation Service provision. For Pre-scheduled Services which do not have an Availability Refinement Period or Services where availability is non-applicable, the terms “Contracted Capacity” and “Requested MW” shall have the same meaning. The Requested MW cannot be higher than the Agreed Availability Capacity determined in the Availability Refinement Period (as relevant).

**Requested Start Time** means the date and time (to the nearest minute) at which the Requested MW shall be delivered.

**Service Window** means the time periods during the Service Period during which the Provider agrees to make available, and provide in accordance with the Agreement, the Flexibility Services to the Company, as defined in the Service Terms (if applicable).

**Site** means each of the locations offering Flexibility Services. For aggregated Flexible Resources, the site is classified as the group of aggregated supplies.

**STOP Instruction** means an instruction from the Company to the Provider, instructing the Provider to cease delivery of the Flexibility Services.

**Term** means the duration of this Agreement.

**Utilisation** means, in respect of a Site(s) / Group, any dispatch of a Flexibility Service which is provided continuously until the Requested End Time. The term "Utilised" shall be construed accordingly.

**Utilisation Instruction** means an instruction (notice) issued by the Company to the Provider to deliver Flexibility Services.

**Utilisation rate** defines the maximum number of hours that we expect Flexibility Services will be required from the Provider.

**Utilisation Payment** means the payment made by the Company to the Provider in respect to the delivery of Utilisation over the Utilisation Period (Delivered MW). The amount of the Utilisation Payment is calculated based on the Utilisation Fee (in MWh/h) in accordance with the provisions of the Service Terms of this Agreement, and may be subject to penalties in case of Provider's under-delivery.

**Utilisation Period** means, in respect of a Site(s) / Group, the duration of time that a Flexibility Service will be provided continuously by the Provider following a dispatch from the Company; from the Requested Start Time until the Requested End Time. For Pre-scheduled Services which do not have an Availability Refinement Period, the terms "Utilisation Period" and "Service Window" shall have the same meaning.

# 2. Conditions Precedent

The Bidder will need to meet the following high-level conditions in order to provide a Flexibility Service to the Company:

a) The Flexible Resource must:

either be already connected to the network location being supported; Providers should use the highlighted area on the maps provided in each appendix as an indication of whether the resource is in the right geographic location[1],

or

be able to locate (i.e. install, commission, and deliver) the Flexible Resource in the locality of the network asset being supported at least 1 month prior to the delivery start date[2] .

b) The minimum flexible capacity offered by directly contracted resources should be at least:

i. 10kW for Services offered at High Voltage (HV) or Extra High Voltage (EHV) CMZs

ii. 5kW for Services offered at Low Voltage (LV) CMZs.

There are no minimum size requirements for individual Sites within an aggregated portfolio, however, the portfolio's total aggregated flexibility capacity must meet the same minimum thresholds (10 kW for HV/EHV CMZs and 5 kW for LV CMZs).

It is noted that the minimum size refers to the volume of flexible capacity that the Provider can offer (measured in kW of Active Power), not to the installed capacity of the Site/portfolio.

c) The Provider should be able to deliver and manage, upon the Company's request, a net reduction in demand (import) or an increase in generation (export), as seen by the distribution network.

d) The Flexible Resource should have the ability to act (provide a response) reliably and consistently, in magnitude, speed (i.e. response time) and duration, throughout the contracted windows.

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[1] *If you would like the SP Electricity North West to verify that the electrical connection is suitable prior to submission of your proposal, please email flexible.contracts@enwl.co.uk with your meter point administration numbers (MPANs).*

[2] *Further information on connection to SP Electricity North West's distribution network is available at Get connected. All connection charges will be payable by the connectee in accordance with our common connection charging methodology.*

e) Generators and Electricity Storage, greater than 16A per phase, looking to export to the network will need to have a long-term parallel connection and be compliant with the requirements of EREC G59 or EREC G99.

f) Generators and Electricity Storage, less than 16A per phase, looking to export to the network will need to have a long-term parallel connection and be compliant with the requirements of EREC G83 or EREC G98.

g) Flexibility Service Providers should be able to deliver the Service by the specified delivery start date (specific start dates are stated for each site in Appendix 3: Site Requirements).

## 2.1. Minimum requirements

The Flexibility Services procured are for a decrease in demand (import) or an increase in generation (export).

The following requirements are required for participation:

a) Each Site / Group must be located in one of the **Constraint Management Zones (CMZ)** detailed within the Appendix 3: Site Requirements.

b) Each Site / Group must be minute-by-minute metered, or an agreed equivalent e.g. Half Hourly. Certain products rely on minute-by-minute metering granularity for accurate performance monitoring and settlement. Where an alternative to minute-by-minute granularity is provided, the data may be disaggregated. As such, this could result in performance monitoring and calculation inaccuracies.

c) For dispatchable resources, each Site / Group must be able to respond and achieve the Contracted Capacity or Requested MW (as relevant) within the Contracted Response Time of receipt of a dispatch signal from the Company. Providers who are able to achieve faster Response Times than the required Maximum Response Time should indicate this within their Asset Qualification response. Faster Response Times will score higher on bid review.

d) Pre-scheduled services (i.e. Scheduled Utilisation and Peak Reduction (excluding Energy Efficiency Measures) will be dispatched as part of a pre-defined schedule and as such the Provider should self-dispatch the Contracted Capacity at the agreed time.

e) Where Energy Efficiency measures are utilised, there will be no dispatch command issued; Providers are expected to provide an enduring reduction in demand.

f) Each Site / Group must be able to provide a minimum 30 minutes response (Minimum Utilisation Time). The Company however may choose to issue shorter dispatch instructions, and providers will only be paid for the actual duration and level of response requested and delivered, rather than the full Minimum Utilisation Time.

g) Certain Site(s)/ Group(s) may require some time to recover between the end of a Utilisation event and be ready to respond to another Utilisation Instruction (Recovery Period). Recovery Period must be less than or equal to the period between one Service Window ending and the next Service Window commencing. There is not a

minimum requirement in relation to the duration of the Recovery Period and the duration will be agreed at the Contract award stage of the tender, where applicable.

h) Each Site must be built (i.e. commissioned) and have a connection agreement with final milestone at least one month prior to the start of the contracted Service Window.

i) Provision of the Service must not put the Provider in breach of other agreements (e.g. connection agreements).

# 3. Technical and Operating Conditions

## 3.1. For Dispatchable Services

This section is only applicable to Services provided utilising dispatchable resources. These include the following products:

- Variable Availability + Operational Utilisation
- Operational Utilisation

In the absence of any notification to the contrary in respect of a particular Site(s) / Group, the Company shall be entitled to assume that that the Flexible Resource is available to be dispatched at all times during the contracted Service Window and for the Contracted Capacity.

The Company may, in any contracted Service Window, issue a notice (a "Utilisation Instruction") requiring the Provider to provide a Flexibility Service, or may itself remotely dispatch the Flexible Resource from that Site(s) / Group.

At any point following the initial Utilisation Instruction and before the end of the contracted service Window, the Company can issue an Adjusted Utilisation Instruction to increase or decrease the Requested MW (Adjusted Requested MW).Where the Company remotely dispatches the Flexible Resource, this shall be notified by the Network Management Hub to the Provider and delivery of Flexibility Services from the Site(s) / Group shall continue uninterrupted for at least the Minimum Utilisation Time until the earlier of:

a) Notification of reduced or increased Service requirement by the Company, and

b) The end of the contracted Service Window (as relevant).

Where the Company issues a Utilisation Instruction requiring the Provider to provide Flexibility Service, the Provider shall, within the response time, provide the Flexibility Service from the Site(s) / Group continuously for the Minimum Utilisation Time until the earlier of:

a) Notification of reduced or increased Service requirement by the Company; and

b) The end of the Contracted Service Window (as relevant).

## 3.2. For Energy Efficiency Services (Peak Reduction)

This section is only applicable to services provided utilising long-term energy efficiency activities that would reduce the Site's overall Demand across the year but specifically during high peak periods. This section is not applicable to Peak Reduction Services provided as Pre-scheduled Services which are described in Section 3.3 below.

The Company will not provide a dispatch command. It is expected that the utilisation of energy efficiency measures will provide an enduring reduction in the Site(s) / Group Demand.

With energy efficiency measures it is recognised that it may not be possible to deliver a consistent volume of Demand reduction, as the Demand reduction will be proportional to the original Demand profile prior to implementing energy efficiency measures. Providers should indicate against the requirements the level of Demand reduction they will be able to provide. This can be provided in the form of a forecasted operating profile.

Where the Provider enters into a contract for the provision of Flexibility Services by the method of energy efficiency, prior to the installation of any new equipment to the Site which is going to increase the site Demand in a significant manner, the Company would expect that they would be notified of the Site's intention to install new equipment or to use site Demand in a different way, at which point the Company can review the changes and determine if it will have a material impact upon the contract. In most cases, as long as the changes in Site Demand do not counteract the energy efficiency measures that the Site is being paid for, then there is unlikely to be a contractual issue. Failure to speak to the Company prior to a significant change in Demand patterns may result in the termination of the contract.

## 3.3. For Pre-Scheduled Services

This section is only applicable to Services provided utilising Pre-Scheduled Services. These include the following products:

- Peak Reduction (excluding Peak Reduction Services provided utilising long-term energy efficiency activities which are described in Section 3.2)
- Scheduled Utilisation

In the absence of any notification to the contrary in respect of a particular Site(s) / Group, the Company shall be entitled to assume that that the Flexible Resource is available at all times during the contracted Service Window and for the Contracted Capacity.

Where a Pre-Scheduled Service has been contracted, the Provider shall provide the Flexibility Service from the Site(s) / Group continuously for the Utilisation Period (which for Pre-scheduled Services is equal to the contracted Service Window) until the earlier of:

a) Notification of reduced Service requirement by the Company; and

b) The end of the contracted Service Window (as relevant).

## 3.4. For all Service Providers

In respect of the dispatch of a Flexible Resource in any contracted Service Window or other period of time previously notified, or deemed to be notified as being available at any Site(s) / Group, in any of the following events the Company Charges otherwise payable by the Company to the Provider shall be reduced accordingly, as agreed and documented within the Flexibility Services contract:

a) Reduced Capacity: the capacity (MW) of Flexibility Service is not provided at a level of at least the required level of Contracted Capacity or Requested MW (as relevant) in all or any part of the Service Window, less any applicable Grace Factor.

b) Unavailability level: the capacity of Flexibility Service is not available at a level of at least the required level of Contracted Capacity in all or any part of the Service Window, less any applicable Grace Factor.

c) Unavailability Notification: the Provider declares Unavailability or was not Available at the time of delivery.

Where Sites are contracted to deliver a Flexibility Service following an Invitation to Tender, there is an understanding that there may be a requirement for recovery following Service delivery. In the event that a response is triggered but a Site's maximum response duration is less than the total event period for the required response, the site should not excessively increase Demand following the depletion of available Flexible Resources whilst the total event period for the required response is still active. An example of this would be that an Electricity Storage system once depleted should not instantly recharge if the trigger signal is still active, as this may compound existing network issues. The Company reserves the right to terminate Flexibility Service contracts if Providers are seen to demonstrate activities such as that detailed above, where they are seen to compound an existing network issue.

Providers should not demonstrate any practices which could be deemed as gaming the system. Examples of gaming the system would include (not an exhaustive list):

a) Where a Site has multiple supplies and they are viewed to reduce Demand on one to provide a contracted Flexibility Service but then move the Demand to an alternative supply fed from the Company's network,

b) Artificially increasing Demand or encouraging others to artificially increase Demand to stimulate the Company to trigger a Flexibility Service,

c) Any acts of vandalism or sabotage which may stimulate the Company to trigger a Flexibility Service.

## 3.5. Availability Declarations

Availability declarations will be scheduled via the Company's nominated Flexibility Services platform.

### 3.5.1. For Dispatchable Services

For **Operational Utilisation Services**, it will be assumed that, unless otherwise notified, the Service will always be available for the full Contracted Capacity during the full contracted Service Window.

For **Variable Availability + Operational Utilisation** Services, availability declarations and agreements will be made a minimum of a week ahead of the subsequent week's contracted Service Window; this is referred to as the Availability Refinement Period. At this stage, the Company may refine the availability requirements in terms of maximum capacity (MW) ("Agreed Availability Capacity"), and periods (days & hours). Providers will be paid availability payments based upon the Agreed Availability Capacity following any such alterations to capacity and periods.

*Appendix 4: Half-hourly-data* provides forecasted half-hourly capacity requirements for the duration of the tender in excel spreadsheet format for each CMZ.

Any alterations to the agreed requirements will not exceed the Contracted Capacity or contracted Service Window levels, unless a subsequent written agreement has been made between the Company and the Provider.

### 3.5.2. For Pre-scheduled Services

For Pre-Scheduled Services, Utilisation will be agreed at the Contract award stage of the tender.

For **Scheduled Utilisation Services**, it will be assumed that, unless otherwise notified, the Service will always be available and utilised for the full Contracted Capacity during the full contracted Service Window.

For **Peak Reduction Services**, it will be assumed that, unless otherwise notified, the Service will always be available and utilised for the full Contracted Capacity (i.e., the Provider's electricity Demand will stay below the contracted Baseline (threshold) in MW) during the full contracted Service Window.

## 3.6. Method of dispatch

This section is only applicable to Services provided utilising dispatchable resources.

Utilisation Instructions for Services as standard will be issued via an API and/or Email, at the discretion of the Company. For any Providers who cannot interface with an API/email, an option for Utilisation Instructions for Operational Utilisation products may be offered via a Company-owned Remote Terminal Unit (RTU) located within the Company substation supplying the Site.

For Sites requiring a new RTU, the Provider is responsible for providing a single-phase Low Voltage supply to the RTU. Additional signalling may be required to allow for availability signalling in real time. These requirements will be discussed as part of the contract negotiations.

The Company reserves the right to modify the method of communications protocol. Site specific agreements shall be agreed prior to the awarding of a contract.

On receipt of a dispatch signal, the Provider shall begin provision of the Requested MW for Operational Utilisation and Variable Availability + Operational Utilisation products.

The dispatch command will incorporate a Requested MW to be delivered and a Requested Start Time. The Provider's response should be at least equal to the dispatch command Requested MW and should remain continuous until either:

a) The dispatch command Requested MW changes; or

b) The dispatch command signal indicates a STOP Instruction; or

c) The Service is no longer within the contracted Service Window; or

d) The service is no longer within the Utilisation Period.

e) A verbal Utilisation Instruction is received from the Network Management Hub.

## 3.7. Fail safe actions

During provision of the contracted Service, if the communications to the Site from the Company's equipment are lost, the Site should cease delivery of the Service until informed otherwise by the Network Management Hub or communications are restored.

## 3.8. Baseline for Measuring Actual Delivery

For contracted Sites, the delivery of Flexibility Services will be measured either at an asset level or at the point of supply, depending upon the location of the metering.

The level of response will be calculated using the minute-by-minute (or an agreed equivalent e.g. Half Hourly) metering readings submitted by the Provider; verified against half hourly settlement readings for the duration of the contracted Service Window. Certain products rely on minute-by-minute metering granularity for accurate performance monitoring and settlement. Where an alternative to minute-by-minute granularity is provided, the data may be disaggregated. As such, this could result in performance monitoring and calculation inaccuracies. Reponses will be calculated on the number of full minutes of response.

In association with the ENA Open Network Project, we have developed a range of common baselining standards (Default Baselining Methodologies (DBMs)) which can be used across the industry when measuring and settling Flexibility Services dispatch contracts. The Provider has the ability to request an Alternative Baselining Methodology (ABM) in the event that the DBM is not considered appropriate. The Company retains sole discretion over whether to approve such a request, balancing the need for methodological consistency with the flexibility to accommodate atypical DERs or generation / demand behaviour.

The supported set of standardised baseline methodologies (DBMs) are:

| Methodology Name | Definition |
|---|---|
| Asset Capacity | Assumes the participating DER would have operated at its full rated or expected capacity during the flexibility event, irrespective of actual operational conditions. |
| Last Observation | Uses the most recent, actual energy consumption or generation data immediately preceding a utilisation event. |
| Meter-Before Meter-After (Measured) | Uses the meter reads immediately preceding and following the utilisation event. |
| Nomination | Uses a proposed set of meter values by the FSP based on their expected or usual operations for a future availability window that then becomes a utilisation event. |
| Recent History | Uses a set of recent, eligible days preceding a utilisation event. This may also include correction factors such as Same Day Adjustment (SDA) for weather variables or removal of outlier values. |
| Fixed Reference | Uses a fixed daily profile derived from the observed energy behaviour of a representative group of DERs that represents normal operating behaviour or a System Operator's planning scenarios. |
| Zero | The baseline energy consumption or generation is set to zero, meaning no energy usage or production is assumed in the absence of the utilisation event. |

The methodology for baselining will be agreed between the Company and the Provider post contract award and ahead of any Service provision. This shall occur at least 2 months prior to the first Utilisation period.

The Provider has the ability to request an Alternative Baselining Methodology (ABM) in the event that the DBM is not considered appropriate. The Company retains sole discretion over whether to approve such a request, balancing the need for methodological consistency with the flexibility to accommodate atypical DERs or generation / demand behaviour.

More information about the ENA Standardised Baselining methodologies can be found here[3].

[3] *https://www.energynetworks.org/assets/images/open-networks-standardised-baselining-report-v1.0.pdf?1757212173*

## 3.9. Response Time

This section explains how the payment mechanisms for providing Flexibility Services work based on the Response Times. Worked Examples for each of the response scenarios set out below are provided in Section 5.

This section only applies to Dispatchable Services, namely Operational Utilisation and Variable Availability + Operational Utilisation; It does not apply to Pre-Scheduled Services, namely Scheduled Utilisation and Peak Reduction.

### 3.9.1. Responding after a Dispatch Instruction by the Company

Depending on how quickly the Provider responded to the Company's Utilisation Instruction, compared to the Contracted Response Time, the following payment mechanisms will apply:

a) If the Provider's Actual Response Time following the issue of a Utilisation Instruction by the Company is less than the Contracted Response Time (i.e., the Provider fully achieved the Requested MW for Dispatchable Services), then the Provider will be entitled to full payment. No payments will be made during the rump-up time. The Provider will receive payments for delivering their Services from the minute the Contracted Capacity or Requested MW (as relevant) was achieved, which, for avoidance of doubt, can be before the Contracted Response Time.

b) If the Provider's Actual Response Time following the issue of a Utilisation Instruction by the Company is after the Contracted Response Time (i.e., the Provider did not fully achieve the Requested MW for Dispatchable Services or the Contracted Capacity for Pre-Scheduled Services within the Contacted Response Time), but the Provider had started delivering their Services within the Contracted Response Time, then the Provider will be entitled to payment but penalisation factors (explained in Section 3.11) will apply as relevant for under-delivery from the end of the Contracted Response Time.

c) If the Provider's Actual Response Time following the issue of a Utilisation Instruction by the Company is after the Contracted Response Time (i.e., the Provider did not fully achieve the Requested MW for Dispatchable Services or the Contracted Capacity for Pre-Scheduled Services within the Response Time that they declared in their contract), and the Provider had not started delivering their Services within the Contracted Response Time, then:

    i. If in the meantime the Company has issued a STOP Instruction, the Provider will not be entitled to payment.

    ii. If the Company has not issued a STOP instruction, then the Provider will be entitled to payment, but penalisation factors (explained in Section 3.11) will apply as relevant for under-delivery from the end of the Contracted Response Time.

### 3.9.2. Responding after an Adjusted Utilisation Instruction by the Company

The Company can issue an Adjusted Utilisation Instruction to increase or decrease the Requested MW (Adjusted Requested MW). The Adjusted Utilisation Instruction can be issued

before or after the end of the Contracted Response Time. Also, the Adjusted Utilisation Instruction can be issued before or after the Provider has started delivering their Service following the initial Utilisation Instruction. When the Company issues an Adjusted Utilisation Instruction, the Provider must adjust their response and achieve the Adjusted Requested MW within the Adjusted Response Time (this is the period that starts from the minute the Company issues the Adjusted Utilisation Instruction and has the same duration as the Contracted Response Time (in minutes))

Depending on how quickly the Provider responded to the Company's Adjusted Utilisation Instruction, compared to the Adjusted Contracted Response Time, the following payment mechanisms will apply:

a) If the Provider's Actual Response Time following the issue of the Adjusted Utilisation Instruction by the Company is less than the Adjusted Contracted Response Time (i.e., the Provider fully achieved the Adjusted Requested MW within the Contracted Response Time), then the Provider will be entitled to full payment. No payments will be made during the rump-up time.

b) If the Provider's Actual Response Time following the issue of the Adjusted Utilisation Instruction by the Company is more than the Adjusted Contracted Response Time (i.e., the Provider did not fully achieve the Adjusted Requested MW within the Adjusted Contracted Response Time), but the Provider had started delivering their Services within the Adjusted Contracted Response Time, then the Provider will be entitled to payment but penalisation factors (explained in Section 3.11) will apply as relevant for under-delivery from the end of the Adjusted Contracted Response Time.

c) If the Provider's Actual Response Time following the issue of an Adjusted Utilisation Instruction by the Company is after the Adjusted Contracted Response Time (i.e., the Provider did not fully achieve the Adjusted Requested MW within the Response Time), and the Provider had not started delivering their Services within the Adjusted Contracted Response Time, then

    i. If in the meantime the Company has issued a STOP Instruction, the Provider will not be entitled to payment.

    ii. If the Company has not issued a STOP instruction, then the Provider will be entitled to payment, but penalisation factors (explained in Section 3.11) will apply as relevant for under-delivery from the end of the Adjusted Contracted Response Time.

### 3.9.3. STOP Instruction

After the issue of a STOP Instruction by the Company (i.e. during the rump-down time), the Provider is not entitled to payment.

The Company can issue a STOP Instruction to the Provider, at any point.

## 3.10. Testing

Testing will need to be conducted at least 1 month prior to the beginning of the Contracted Performance Window. The Company also reserves the right to request additional Proving Tests (test of ability to deliver a response) at its discretion.

Utilisation payments will apply for Proving Tests as requested by the Company.

## 3.11. Monitoring

Provider's performance will be monitored, and payments will be made in accordance with the below set of performance delivery criteria.

Grace Factor is a tolerance (expressed in %) which is applied to the MW of Flexibility Services delivered by the Provider (Delivered MW or Agreed Availability Capacity) compared to the MW of Flexibility Services requested by the Company (Requested MW or Requested Availability Capacity).

- If the ratio of Delivered MW/Requested MW falls within this tolerance (successful delivery), then full payment is made for each minute of delivery.
- If the ratio of Delivered MW/Requested MW falls below this tolerance (under-delivery), then penalisation factors apply according to **Error! Reference source not found.** and Table 3.1.
- If the ratio of Delivered MW/Requested MW falls above this tolerance (over-delivery), then full payment is made for each minute of delivery, but additional payment will be made for over-delivery.

Performance Multiplier: If the ratio of Delivered MW/Requested MW falls below the Grace Factor tolerance (under-delivery), then for every 1% of Service under delivery between 64%-95%, the payment will be reduced by a Performance Multiplier of 2 or 3, according to Table 3.1.

**Performance delivery criteria**

| Service delivered (MW) as % of contracted or requested Service (MW) | Payment | Actions |
|---|---|---|
| **Over Delivery**<br>$\frac{\text{Service Delivered}}{\text{Contracted or Requested Service}} = 100\%$ | No additional payment made for Services greater than requested. (over-delivery) | None |
| **Within Grace Factor Tolerance**<br>For Peak Reduction, Variable Availability + Operational Utilisation, Scheduled Utilisation:<br>$95\% \leq \frac{\text{Service Delivered}}{\text{Contracted or Requested Service}} < 100\%$<br>For Operational Utilisation: | Payment in full. This includes a 5% or 10% Grace Factor, according to Table 3.1. | None |

| | | |
|---|---|---|
| $90\% \leq \frac{\text{Service Delivered}}{\text{Contracted or Requested Service}} < 100\%$ | | |
| **Within Penalisation Zone**<br><br>For Peak Reduction, Variable Availability + Operational Utilisation, Scheduled Utilisation:<br><br>$64\% \leq \frac{\text{Service Delivered}}{\text{Contracted or Requested Service}} < 95\%$<br><br>For Operational Utilisation:<br><br>$45\% \leq \frac{\text{Service Delivered}}{\text{Contracted or Requested Service}} < 90\%$ | A Performance Multiplier of 2 or 3 is applied to payments, according to Table 3.1. | Service delivery under 90% will be monitored. Greater than three Utilisations delivered at <90% will be constituted as Service failure. |
| **Below Penalisation Zone**<br><br>For Peak Reduction, Variable Availability + Operational Utilisation, Scheduled Utilisation:<br><br>$\frac{\text{Service Delivered}}{\text{Contracted or Requested Service}} < 64\%$<br><br>For Operational Utilisation:<br><br>$\frac{\text{Service Delivered}}{\text{Contracted or Requested Service}} < 45\%$ | Service failure. No payment made. | Potential contract termination. |

**Table 3.1 - Grace Factors and Performance Multipliers for each Flexibility Service Product**

| Parameter | Peak Reduction | Scheduled Utilisation | Operational Utilisation + Variable Availability | Operational Utilisation |
|---|---|---|---|---|
| Utilisation Grace Factor | 5% | 5% | 5% | 10% |
| Availability Grace Factor | N/A | N/A | 5% | N/A |
| Performance Multiplier | 3 | 3 | 3 | 2 |
| Payable over-delivery | 0 | 0 | 0 | 0 |

Worked example for a Variable Availability + Operational Utilisation:

Availability under-delivery:

- During the Availability Refinement Period, if the Company requests 8MW of flexible capacity to be made available by the Provider (Requested Available Flexible Capacity) over the Service Window or the Accepted Availability Window (as relevant), but the Provider can only offer 7MW of available flexible capacity (Agreed

Available Flexible Capacity), the delivery percentage is 87.5% (7MW/8MW). The Provider falls 7.5% (95%-87.5%) outside of the Availability Grace Factor level, therefore a multiplier of 3 is applied (3 * 7.5% = 22.5%) and the Provider will be paid 72.5% (95% - 22.5%) of the Availability Fee (in MW/h) during the Service Window or the Accepted Availability Window (as relevant).

Utilisation under-delivery:

- If the Requested MW is 5MW and the Provider delivers 4.288MW, the delivery percentage is 85.76% (4.288MW/5MW). The Provider falls 9.24% (95%-85.76%) outside of the Utilisation Grace Factor level, therefore a multiplier of 3 is applied (3 * 9.24% = 27.72%) and the Provider will be paid 67.28% (95% - 27.72%) of the Utilisation Fee (in MWh/h) during the Utilisation Period.

Utilisation successful delivery (within Grace Factor tolerance):

- If the delivery percentage is ≥95%, i.e. the Provider delivers at least 4.75MW (95% x 5MW), then the full utilisation payment will be made.

## 3.12. How to respond to Technical Specification

Assets should be registered on the ElectronConnect Platform, and Bidders should confirm which assets they intend to put forward for each competition zone. Bidders are required to complete all relevant technical information within ElectronConnect's pre-qualification questionnaire. Every field should be completed and should include brief and relevant information only for each Site / Group. If a Bidder is unsure how to complete any field, they should contact the Company with sufficient time before the end of the pre-qualification window.

Where it is relevant, additional technical information relating to development timescales and loading profiles should be uploaded within ElectronConnect's pre-qualification questionnaire, however Bidders should avoid providing unnecessary additional data. The Company may choose not to review all additional information where it demands significant resource to do so.

Bidders should indicate where their assets can achieve faster Response Times than the required Maximum Response Time. Faster Response Rimes will score higher on the bid assessment.

# 4. Product Parameters

| | Parameter Name | Operational Utilisation | Variable Availability + Operational Utilisation | Scheduled Utilisation | Peak Reduction |
|---|---|---|---|---|---|
| **Structure** | Payment Structure | Utilisation Only | Availability and Utilisation | Utilisation Only | Utilisation Only |
| | When prices are set (procurement timescales) | At trade | At trade | At trade | At trade |
| **Availability** | Availability Request Mechanism | N/A | Request initiated by DNO | N/A | N/A |
| | Availability Acceptance timing | N/A | At trade | N/A | N/A |
| | Availability Refinement timing | N/A | Week Ahead | N/A | N/A |
| | Availability Changes Allowed | N/A | No | N/A | N/A |
| | Minimum Aggregate Unit Size | 10kW | 10kW | 10kW | 10kW |
| | Partial Availability Acceptance Possible | N/A | Yes | N/A | N/A |
| | Time Variable Availability Volumes Allowed | N/A | Yes | N/A | N/A |
| | Availability Payment Unit | N/A | £/MW/h | N/A | N/A |
| | Availability Period | N/A | Settlement Periods | N/A | N/A |
| **Utilisation** | Utilisation Payment Unit | £/MWh | £/MWh | £/MWh | £/MWh |
| | Utilisation Period | Minutes | Minutes | Settlement Periods | Settlement Periods |
| | Delivery Expectation | Continuous | Continuous | Continuous | Peak Delivery |
| | Maximum Response Time | 15 mins* | 15 mins* | N/A | N/A |
| | Payments during response time? | No | No | No | No |
| | Minimum Utilisation Time | 30 mins | 30 mins | 30 mins | 30 mins |
| | Minimum Utilisation Volume | N/A | N/A | N/A | N/A |

| | | | | | |
|---|---|---|---|---|---|
| | Utilisation Instruction Timings | Real Time | Real Time | At trade | At trade |
| | Partial Utilisation Instruction possible | Yes | Yes | Yes | Yes |
| | Time Variable Utilisation Volumes Allowed | Yes | Yes | Yes | Yes |

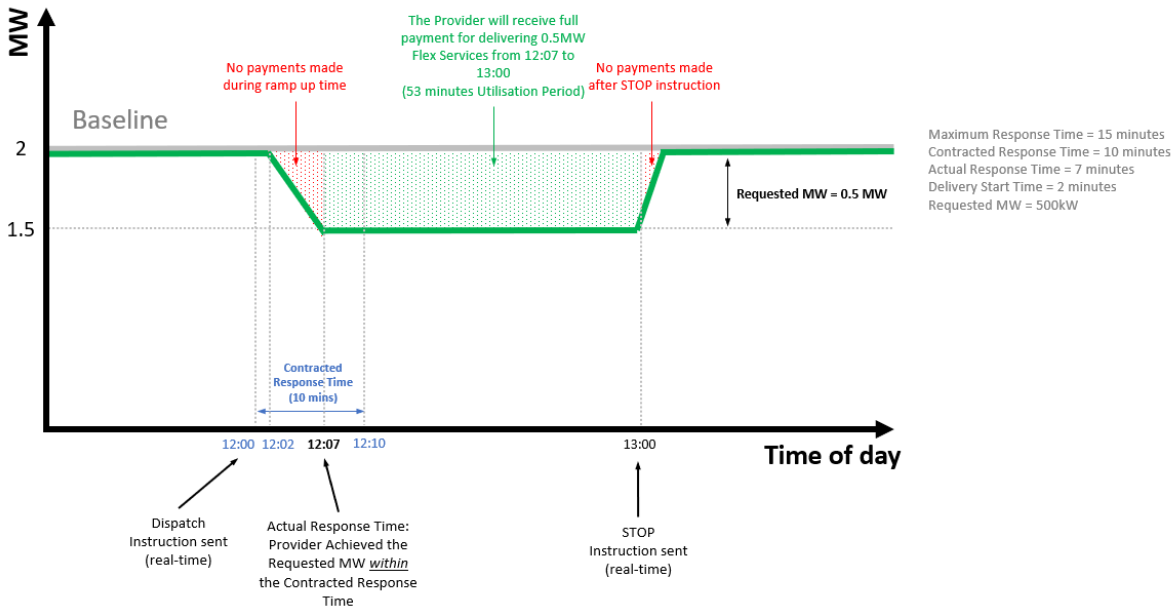
** Bidders should indicate where their assets can achieve faster Response Times than the required Maximum Response Time. Faster Response Rimes will score higher on the bid assessment.*

# 5. Response Time & Payment Mechanisms - Worked Examples

## 5.1. Dispatch Instruction – no adjustment in Required MW

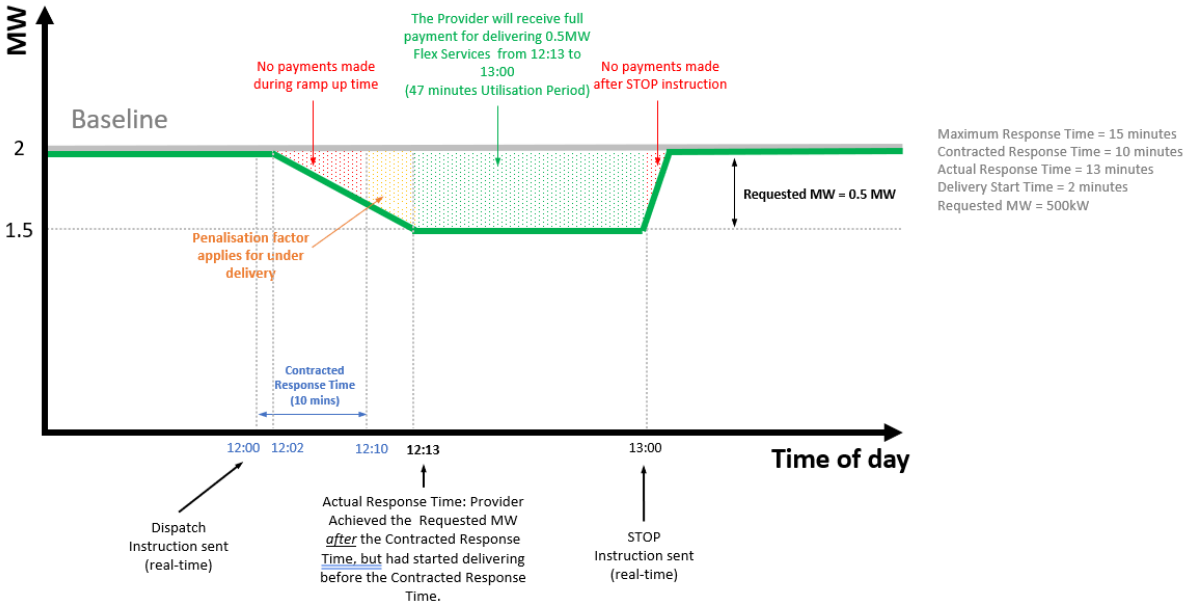
### 5.1.1. Use Case 1

| | |
|---|---|
| **Product** | Operational Utilisation |
| **Dispatch Instruction** | Demand Decrease |
| **Provider started responding within Contracted Response Time?** | Yes |
| **Provider achieved Required MW within Contracted Response Time?** | Yes - Full payment, no penalties. |
| **Dispatch adjusted?** | No |



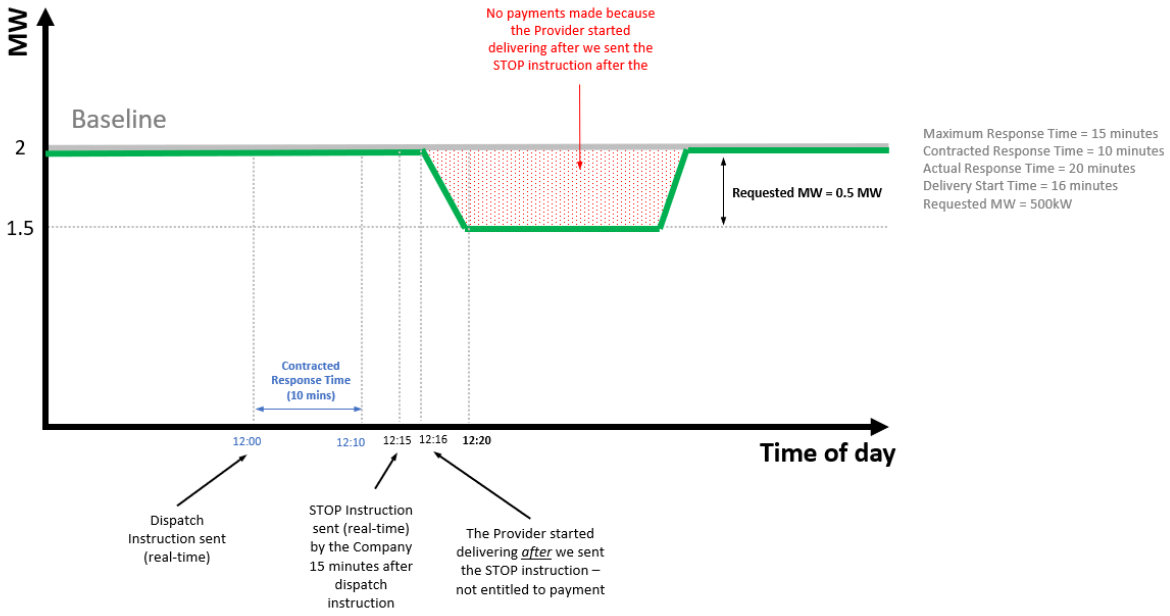

### 5.1.2. Use Case 2

| | |
|---|---|
| **Product** | Operational Utilisation |
| **Dispatch Instruction** | Demand Decrease |
| **Provider started responding within Contracted Response Time?** | Yes |
| **Provider achieved Required MW within Contracted Response Time?** | No – Payment will be made but penalties for under delivery will apply. |
| **Dispatch adjusted?** | No |



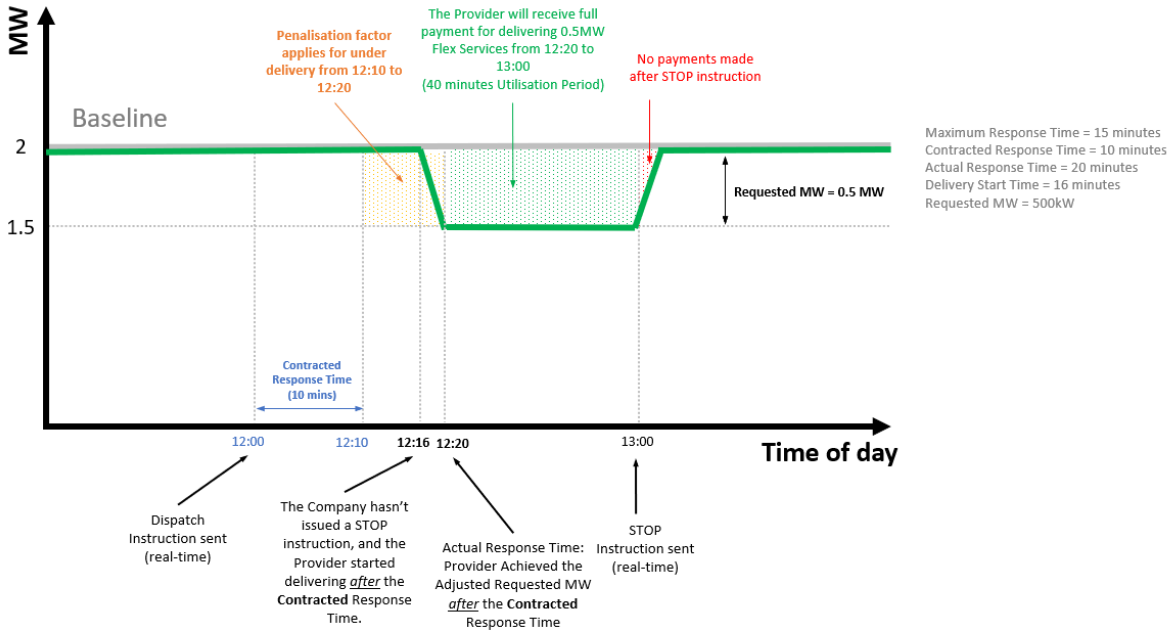

### 5.1.3. Use Case 3

| | |
|---|---|
| **Product** | Operational Utilisation |
| **Dispatch Instruction** | Demand Decrease |
| **Provider started responding within Contracted Response Time?** | No |
| **Provider achieved Required MW within Contracted Response Time?** | No – STOP instruction issued by Company after 15 minutes and before the Provider started delivering. No payment will be made. |
| **Dispatch adjusted?** | No |




### 5.1.4. Use Case 4

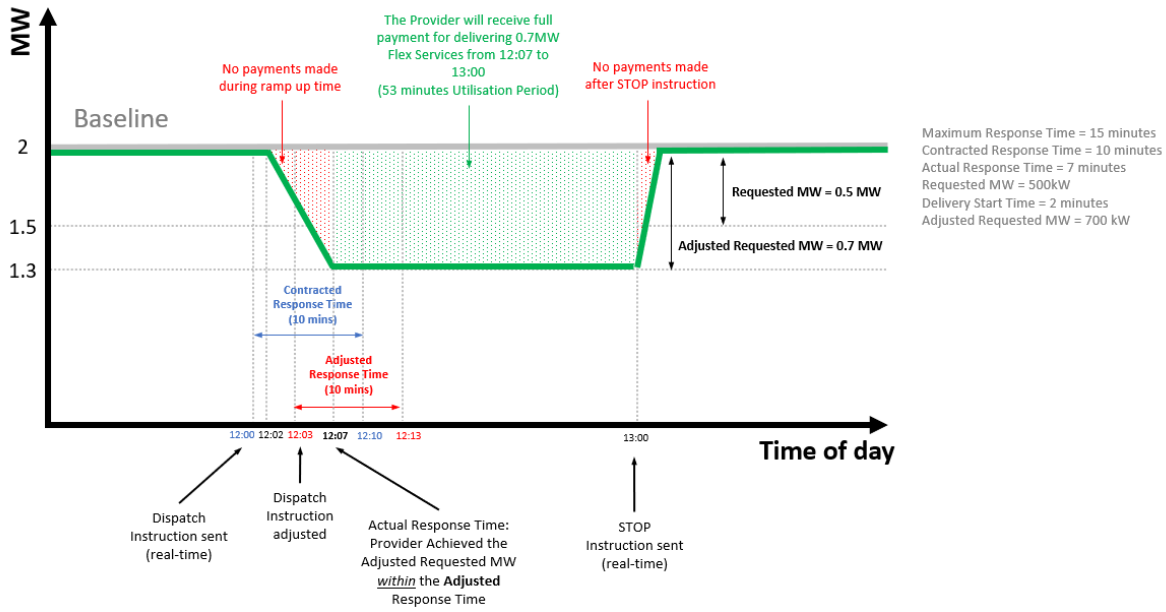
| | |
|---|---|
| **Product** | Operational Utilisation |
| **Dispatch Instruction** | Demand Decrease |
| **Provider started responding within Contracted Response Time?** | No |
| **Provider achieved Required MW within Contracted Response Time?** | No – Payment will be made because the Company didn't issue a STOP instruction but will be subject to penalty because the Provider underdelivered. |
| **Dispatch adjusted?** | No |




## 5.2. Dispatch Instruction followed with adjustment in Required MW

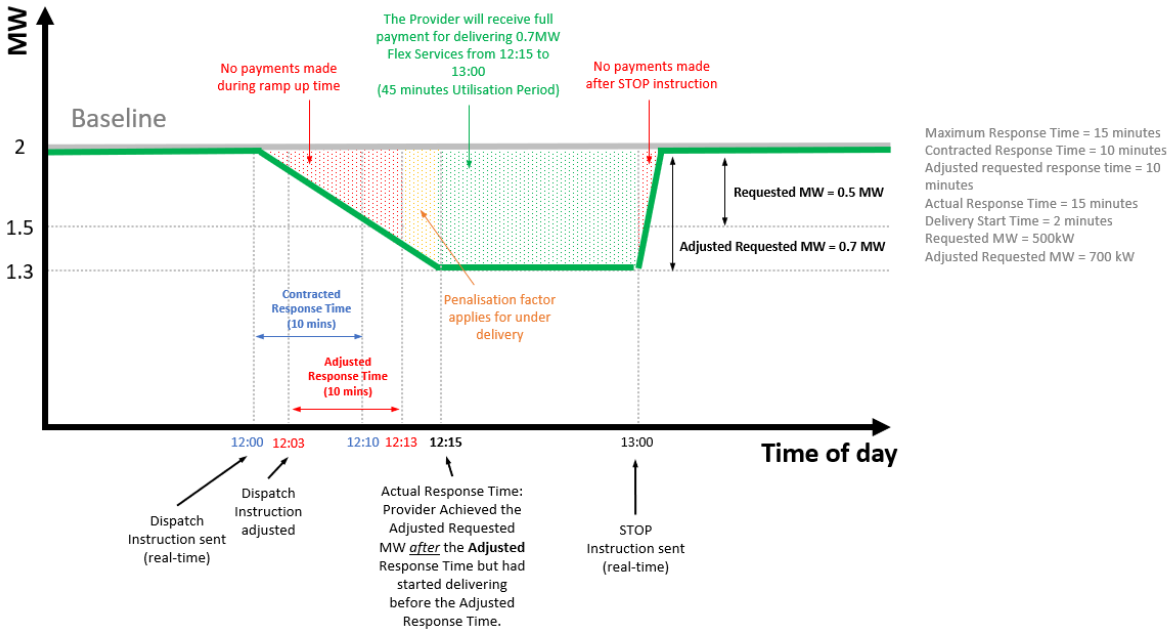
### 5.2.1. Use Case 5

| | |
|---|---|
| **Product** | Operational Utilisation |
| **Dispatch Instruction** | Demand Decrease |
| **Dispatch adjusted?** | Yes |
| **Provider started responding within the Adjusted Contracted Response Time?** | Yes |
| **Provider achieved Required MW within Adjusted Contracted Response Time?** | Yes – Full payment will be made because the Provider achieved the Adjusted Required MW within the Adjusted Contracted Response Time. |



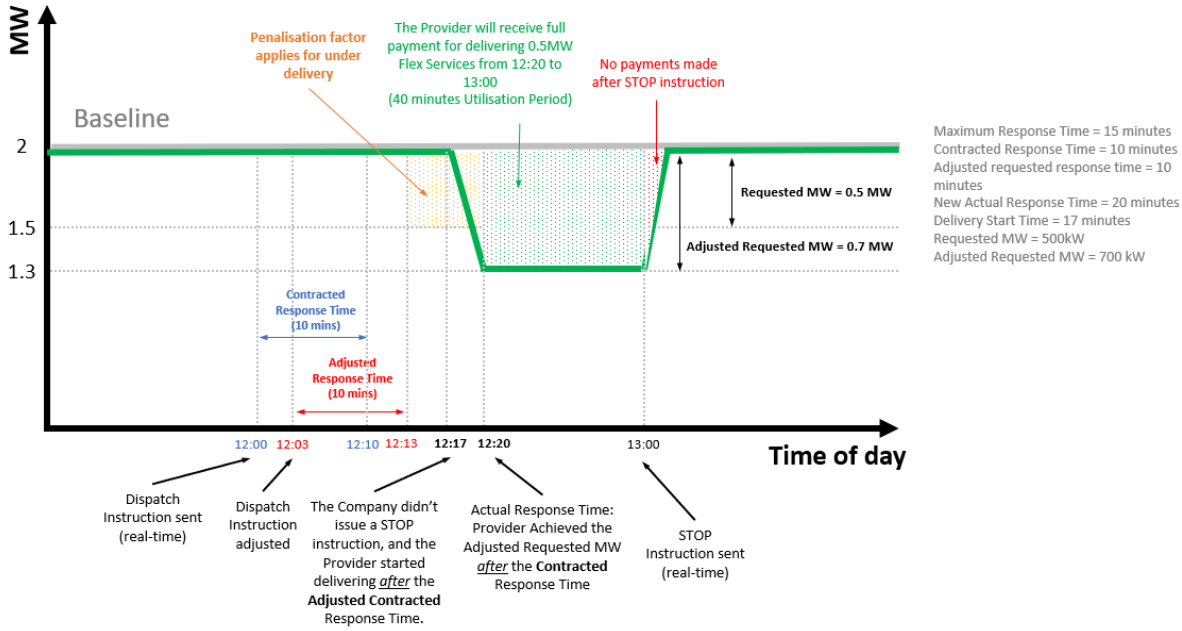

### 5.2.2. Use Case 6

| | |
|---|---|
| **Product** | Operational Utilisation |
| **Dispatch Instruction** | Demand Decrease |
| **Dispatch adjusted?** | Yes. Required MW increased. |
| **Provider started responding within the Adjusted Contracted Response Time?** | Yes |
| **Provider achieved Required MW within Adjusted Contracted Response Time?** | No – Payment will be made because the Company didn't issue a STOP instruction but will be subject to penalty because the Provider underdelivered. |



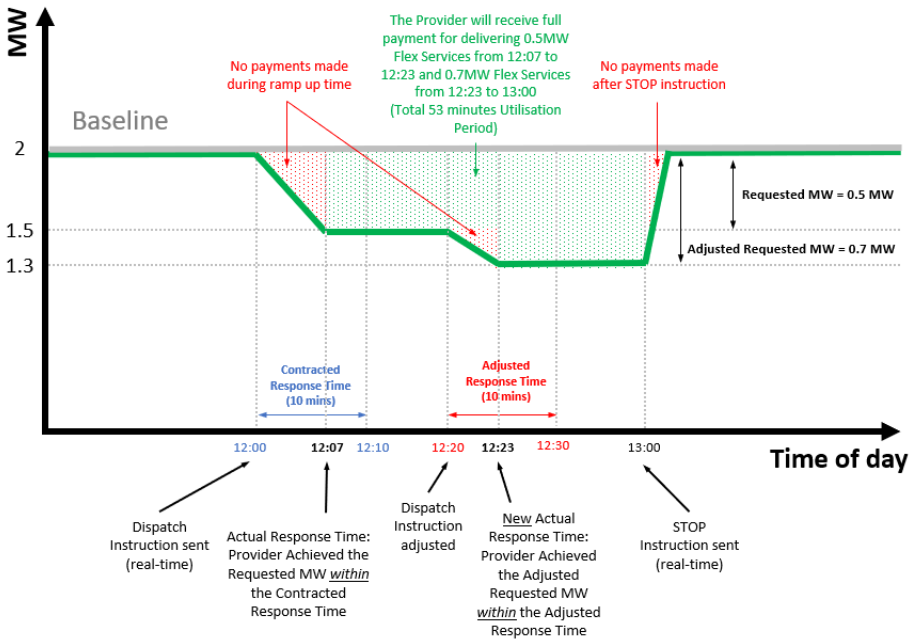
### 5.2.3. Use Case 7

| | |
|---|---|
| **Product** | Operational Utilisation |
| **Dispatch Instruction** | Demand Decrease |
| **Dispatch adjusted?** | Yes. Required MW increased. |
| **Provider started responding within the Adjusted Contracted Response Time?** | No |
| **Provider achieved Required MW within Adjusted Contracted Response Time?** | No – Payment will be made because the Company didn't issue a STOP instruction but will be subject to penalty because the Provider underdelivered. |




### 5.2.4. Use Case 8

| | |
|---|---|
| **Product** | Operational Utilisation |
| **Dispatch Instruction** | Demand Decrease |
| **Dispatch adjusted?** | Yes, mid-way through delivery. Required MW increased. |
| **Provider started responding within the Adjusted Contracted Response Time?** | Yes, was already delivering |
| **Provider achieved Required MW within Adjusted Contracted Response Time?** | Yes – Full payment. |




### 5.2.5. Use Case 9

| | |
|---|---|
| **Product** | Operational Utilisation |
| **Dispatch Instruction** | Demand Decrease |
| **Dispatch adjusted?** | Yes, mid-way through delivery. Required MW decreased. |
| **Provider started responding within the Adjusted Contracted Response Time?** | Yes, was already delivering |
| **Provider achieved Required MW within Adjusted Contracted Response Time?** | Yes – Full payment. |