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MW Dispatch Service
Participation Guidance Document

Applicable in UK Power Networks
(South Eastern Coast region)

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Contents

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Introduction

This guidance document should be read in conjunction with the MW Dispatch Service Terms (which take priority over this guidance document) and are available on the ESO website [Megawatt Dispatch | ESO]

Version control

Version	Effective Date	Change	Page
1.0	12/1/2024	Version (1.0)	

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MW Dispatch Service

In collaboration with Distribution Network Operators (DNOs), National Grid Electricity System Operator (NGESO) have developed Regional Development Programmes (RDPs) to implement solutions that provide an economic route to connection for Distributed Energy Resources (DER). These solutions will also ensure continued operability of future DER connections in areas of the network where there are limitations/constraints at various points on the transmission system.

The Megawatt (MW) Dispatch Service is the first market-based product to be developed through RDPs. For the UK Power Networks (South Eastern Power Networks (SPN)) area, the following Grid Supply Points are in scope initially:
1. Bolney
2. Ninfield
3. Sellindge
4. Canterbury North
5. Richborough

This MW Dispatch Service is a DER specific ancillary service to manage transmission pre-fault thermal constraints (in conjunction with the Balancing Mechanism). The MW Dispatch Service is an obligation on all DER with specific conditions in their distribution connection offer/agreement to provide ‘’**Control and Visibility**” (or **Connect and Manage**) where this obligation has not been achieved by signing up to the **NGESO Balancing Mechanism/Wider Access service**.

The service, regardless of technology, requires Active Response Capability from MW Dispatch Service Providers to reduce real power export output to zero (‘turn to zero’) when instructed by NGESO. For the avoidance of doubt, batteries that can act as either generation or demand will only be required to reduce generation to zero. Under certain network conditions and when it is economic to do so, NGESO will instruct MW Dispatch Service Providers (via the DNO dispatch solution) to ‘turn to zero’. If instructed, and providing they comply with the instruction, MW Dispatch Service Providers will be paid for the volume of energy they have curtailed.

This document provides an overview of the MW Dispatch Service. Please note capitalised and bold terms used in this Participation Guidance Document have, where not expressly defined, the meanings given to them in the MW Dispatch Service Terms.

Service Terms

The MW Dispatch Service Terms (SPN) review dates will be published in this document in accordance with clause 2.1 of the Service terms. The ESO intention is to review the Service Terms approximately 12 months after the first DER signs up into a Tri-party agreement (NGESO, UKPN and DER).

Service Parameters

The MW Dispatch Service is a requirement on DER with specific conditions for ‘Control and Visibility’ within their distribution connection offer/agreement. The contractual requirements for the MW Dispatch Service are described in full in the MW Dispatch Service Terms, but the key elements are:

- Active Response Capability ‘turn to zero’ or within deadband tolerance of 0.05MW.
- Minimum 1MW installed capacity.
- Active Power Control Equipment. Respond to instructions (via the DER Control Equipment) and reduce output to zero MW within a set, pre agreed Response Time (detailed in Response Time, Table 1 in this document).
- Providers are able to submit to NGESO via the Single Market Platform (SMP) any revision to their ‘Utilisation Rate’ each day by 16:00 for the following Trading Day.
- Each Trading Day will run from 05:00:00 hours to 04:59:59 the following day.

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- If instructed, generation output is maintained at zero (or within the 0.05MW deadband tolerance) until such time as a Cease Instruction is issued.
- Payments will be made by NGESO direct to the provider (based on Utilisation Rate), for each instruction.

Registration Procedure – Prequalification for MW Dispatch

For a DER to participate in the MW Dispatch Service, it must become a Registered Service Provider with NGESO and become prequalified for the service by registering its asset/s and by agreeing to the MW Dispatch Service Terms as published by NGESO. This registration process is all managed via our Single Market Platform (SMP). The SMP portal can be found on the NGESO website here https://portal.nationalgrideso.com/smp/s/login/. If any assistance with this process is required, please contact Commercial.Operation@nationalgrideso.com

This section outlines the process steps for prequalification. Please note that DER should allow a minimum of 2 months to register and prepare for participation in the service.

- Step 1 – participant contacts NGESO to request access to Single Market Platform (SMP). Commercial.Operation@nationalgrideso.com
- Step 2 – Participant is granted access to SMP and requests registration as a Registered Service Provider.
- Step 3 - Registered Service Provider submits asset/s details for pre-qualification for MW Dispatch Service.
- Step 4 – Registered Service Provider signs up to the MW Dispatch Service Terms and submits its payment details.
- Step 5 – NGESO and DNO validate and undertake any necessary asset testing and validation.
- Step 6 – NGESO confirms completion of prequalification process – asset/s are now able to provide the MW Dispatch Service and submit any revisions to Utilisation Rates.

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Service Delivery

Dispatch

NGESO may at any time in a Trading Day issue a Dispatch Instruction for Active Power Response to the DNO. The DNO will hold the instruction for a 'Safety window' to inform operational decisions on expected network behaviour and after circa 10 minutes, the DNO will forward this to the MW Dispatch Service Provider via the DNO dispatch solution. This instruction will be 'open ended' not specifying a duration for the instruction. The DNO will forward each Dispatch Instruction to the DER and provide DER confirmation status back to NGESO that the Dispatch Instruction has been accepted or rejected.

Upon accepting the Dispatch Instruction, the MW Dispatch Service Provider will comply with each Dispatch Instruction for Active Power Response and ensure that its asset reduces output to zero (0MW) or within the deadband tolerance (0.05MW) within the timing referred to in Table 1 upon receipt of the NGESO Dispatch Instruction via the DNO.

The MW Dispatch Service Provider will maintain delivery of Active Power Response at zero MW output (or within the deadband tolerance) until a Cease Instruction is issued to end Active Power Response. This Cease Instruction will be received by the DNO and subsequently forwarded on to the MW Dispatch Service Provider (via the DNO dispatch solution).

NGESO will monitor the performance of all Dispatch Instructions through the monthly settlement process against the following Service Failure criteria.

For each Dispatch Instruction, the MW Dispatch Service Provider must reduce output of their asset to zero MW (or within the deadband tolerance (0.05MW)) within the time relevant to their generating module capacity as per Response Time table below. This will be measured from the point of receipt by NGESO of a Dispatch Instruction Acceptance (DER confirmation status = Accepted) from the DNO to the time of issue of a Cease Instruction to the Provider. Any failure (subject to deadband tolerance) shall be treated as having occurred in any Settlement Period/s (SP) within the Response Time and no Utilisation Payment for the curtailed energy volume will be made for these Settlement Period/s.

Response Time

MW Dispatch output reduction timescales (Response Time)

Generating module capacity	Maximum time allowed to ramp down from full capacity to zero (0MW)
>=50MW	145 seconds
>=40MW and <50MW	125 seconds
>=30MW and <40MW	120 seconds
>=20MW and <30MW	120 seconds
>=10MW and <20MW	120 seconds
>=5MW and <10MW	90 seconds
>=2MW and <5MW	80 seconds
>=1MW and <2MW	60 seconds

Table 1. MW Dispatch output reduction timescales (Response Time) as cited in EDS 08-5060 Active Network Management -Flexible Connection Requirements

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Metering

The generation output (MW) will be collated via UK Power Networks Remote Terminal Unit (RTU) at the substation and shared with the ESO in 15 seconds intervals. ESO will use this data for both operational assessment and settlement purposes.

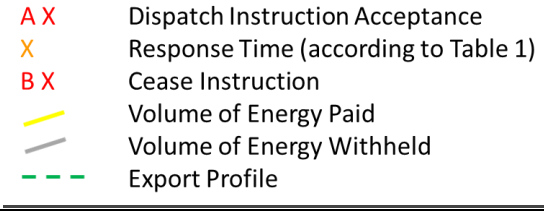
Performance Monitoring

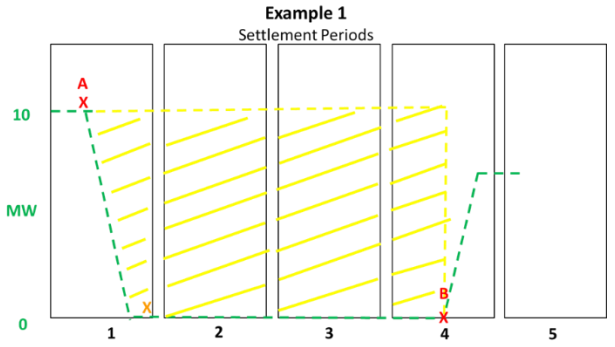
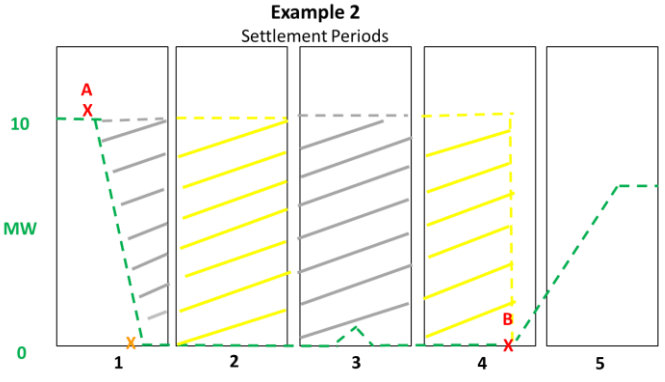
Having reduced output to zero MW, the asset must maintain this level of output in all Settlement Period/s until such time as NGESO has issued and the DER has received a Cease Instruction via the DNO. Any failure (subject to a deadband tolerance) shall be treated as having occurred in each applicable Settlement Period and no Utilisation Payment for the curtailed energy volume will be made for the entire Settlement Period/s where this failure occurs.

Please note that a deadband tolerance <= 0.05MW export will be applied to each Dispatch Instruction.

Refer to Schedule 2 of the Service Terms for more details on Utilisation payments.

The following section provides some examples of how we will apply the above Service Failures to the payment for the MW Dispatch Service



In Example 1 the DER is exporting 10MW in Settlement Period (SP) 1 when the Dispatch Instruction Acceptance (DER confirmation status = Accepted) is notified to NGESO by the DNO. The DER achieved the required response time specified in Table 1 in SP1. DER maintains zero MW throughout SP2 and SP3. NGESO then issue a Cease Instruction in SP4 and DER commences ramp up to previous/new export level. Therefore, the DER is paid for all reduced MW volume (from the baseline of 10MW) for SP1 from the point of Dispatch Instruction Acceptance. The DER is also paid for all reduced MW volume during SP2 and SP3 as the export level was zero, and reduced MW volume is also paid in SP4 up to the point the Provider is issued with a Cease Instruction from the DNO.	
In Example 2 the DER is exporting 10MW in Settlement Period (SP) 1 when the Dispatch Instruction Acceptance (DER confirmation status = Accepted) is notified to NGESO by the DNO. The DER reaches zero MW in SP1, **but fails to achieve the required response time specified in Table 1**. DER maintains zero MW throughout SP2 but **export increases above deadband tolerance of 0.05 MW for a brief period in SP3**. The DER maintains zero MW through SP4 until NGESO issues and the DER receives a Cease Instruction. DER then commences ramp up to previous/new export level.	

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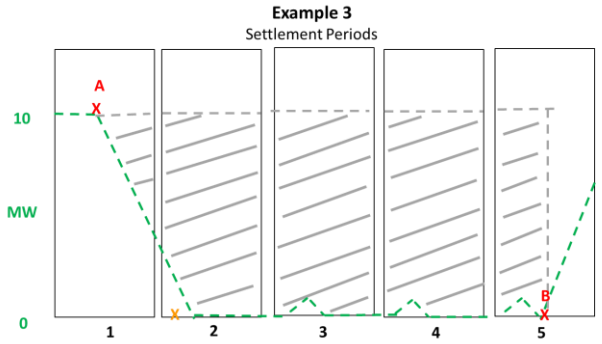
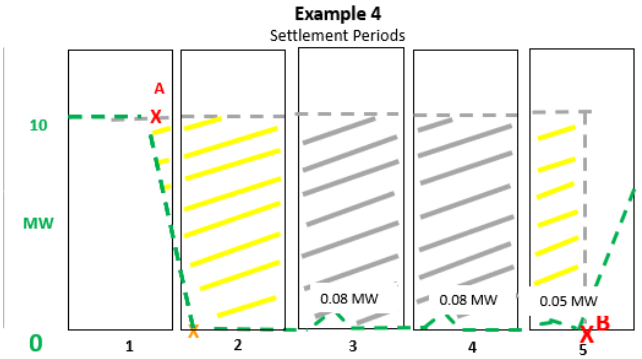
Therefore, the DER is **not** paid for any reduced MW volume **for SP1** due to the **Response Time failure**. The DER is paid for all reduced MW volume during SP2 but is **not paid** for any volume in **SP3** as the **export level increased**. Reduced MW volume is paid in SP4 up to the point of the Cease Instruction was issued to the DER.	
In Example 3 the DER is exporting 10MW in Settlement Period (SP) 1 when the Dispatch Instruction Acceptance (DER confirmation status = Accepted) is notified to NGESO by the DNO. The DER does not reach 0.05 MW or below in SP1 **failing to achieve the required response time specified in Table 1**. DER does reach 0.05 MW or below in SP2 **but not for the entire SP**. DER **export increases for a brief period in SP3, SP4**. DER export also **increases** for a brief period in SP5 prior to the NGESO Cease Instruction when the DER commences ramp up to previous/new export level. Therefore, due to failures in each SP, the DER is **not paid for any reduced volumes across the entire Dispatch Instruction.**	
In Example 4 the DER is exporting 10MW in Settlement Period (SP) 1 when the Dispatch Instruction Acceptance (DER confirmation status = Accepted) is notified to NGESO by the DNO. The DER does reach 0.05 MW or below in SP2 **within the required response time specified in Table 1**. DER does maintain 0.05 MW or below in SP2. DER **export increases for a brief period in SP3 and SP4 above 0.05 MW**. DER export does maintain 0.05 MW or below in SP5. NGESO issues Cease Instruction during SP5 when the DER commences ramp up to previous/new export level. Therefore, the DER is paid for all reduced MW volume during SP1 & SP2 but is **not paid** for any volume **in SP3 & SP4** as the **export level increased above** 0.05 MW **deadband** tolerance. Reduced MW volume is paid in SP5 up to the point of the Cease Instruction was issued to the DER.	

Settlement

Utilisation Payments will be settled by NGESO on a monthly basis, subject to deductions for Service Failures following performance monitoring, described above. For further information regarding how payment is calculated, and payment terms, please refer to the MW Dispatch Service Terms, Schedule 2.

NGESO shall apply MW Dispatch Service energy volumes within Applicable Balancing Services Volume Data (ABSVD) for the MW Dispatch Service Providers.

Please note, it will be the responsibility of the MW Dispatch Service Provider to ensure they have completed the necessary payment information via the new service provider form If these details change, ESO Settlements should be promptly notified by emailing the settlement queries team: settlement.queries@nationalgrideso.com so that the correct payments are made in a timely manner.

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Payment

Each Provider will have the opportunity to update its Utilisation Rate (for each DER Unit) each day (by latest 4pm) for the next following Trading Day to be submitted via the NGESO SMP.

NGESO will pay MW Dispatch Service Providers for the volume of curtailed energy in the form of a Utilisation Payment. The payment will be based on a 'Pay as Bid' price covering the full duration of the curtailment instruction (including ramping down and subject to the details set out above relating to DER Performance Monitoring) up to the time of issue to the Provider of the Cease Instruction. For the avoidance of doubt, there will be no other payment made for the MW Dispatch Service.

In the event of no metering data being sent during curtailment, service providers will not be paid for those settlement periods. Service providers can submit a dispute by filling in a form via this link Settlements | ESO. This should be done as soon as possible to avoid delays. The service provider will need to provide supporting evidence of the metering values as an email attachment when sending the dispute submission form to the NGESO settlement team – no metering values = no payment.

The Settlement ends once NGESO send a cease instruction to the DNO and the service ends when the DNO acknowledges receipt of that cease instruction. There may be a delay between the DNO acknowledging receipt of the cease instruction and the generator being allowed to export depending on the status of the communication between the DNO and the generator.

All payments will be subject to Performance Monitoring and any deductions associated with Service Failures, as set out above.

For further information on End to End System failure scenarios and the impact on settlement, please refer to Appendix 3.

Applicable Balancing Services Volume Data (ABSVD)

All MW Dispatch volume will be subject to the Applicable Balancing Services Volume Data (ABSVD) process in accordance with the P354 process and requirements is explained in P354_FMR_D_Business Requirements_v3 (1) available in https://www.elexon.co.uk/mod-proposal/p354/

MW Dispatch registered Providers must provide the following information for ABSVD purpose:
Within the registration process:

1. MSID pair
2. MSID pair Effective From: the date from which the MW Dispatch Participant may provide MSID Pair Delivered Volumes in relation to this MSID Pair
3. MSID Pair Effective To: the last date which the Provider may provide MSID Pair Delivered Volumes in relation to this MSID pair
4. MSID pair Customer Consent whether the Provider has consented to the Supplier receiving MSID pair ABSVD
5. Consent Effective From: Customer Consent Effective From
6. Consent Effective To: Customer Consent Effective To

ABSVD volume will be calculated as curtailed volume, not subject to performance monitoring and information for ABSVD will be taken from ASDP tool.

For further information and examples, please refer to Appendix 1&2.

Transparency

NGESO will seek to publish data in line with our other Ancillary Services in the Monthly Balancing Services Summary (MBSS). ESO will also publish details of all MW Dispatch Service instruction data (anonymised) in near to real time on our website.

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APPENDIX 1

ABSVD Vocabulary

Need - Hard requirement, derived from system requirements/limitations. Form will not be processed if not met.
Should - Soft requirement, derived from business requirements or other contractual obligations. Exceptions may apply, usually at Elexon's discretion.
MSID - Also referred to as 'MPAN', or 'Meter Point Administration Number'. For ABSVD purposes, all these names are synonymous and refer to the same concept and data.
MSIDP - MSID Pair
ICCF - Import Customer Consent Flag
ECCF - Export Customer Consent Flag

#	Field	Valid Example	Requirements	Description	Can be blank	Format
(1)	Party ID	NGC	*All ESO Registrations need to have "NGC" ID.*	*Party ID refers to the party submitting the registration details to Elexon. For all ESO services, this body is ESO, having the code 'NGC'.*	FALSE	AAA
(2)	GSP Group ID	_N	*Derived from the first 2 digits of the MPAN - (5) and (9) need to start with the same 2 digits. "_" character need to be before the Group code.*	*GSP Group ID is a code identifying the DNO. GSP Group IDs are constant and correspond to the region of the UK covered by a given DNO.*	FALSE	_A
(3)	Effective From Settlement Date {MSIDP}	01/01/2023	*Should be later than the form submission date (exceptions apply) and need to be earlier than (4).*	*The first Settlement Date from which the MSID Pair will be utilised or instructed. It's also the first day that the MSID pair can have ABSVD submitted.*	FALSE	dd/mm/yyyy
(4)	Effective To Settlement Date {MSIDP}	30/11/2025	*Need to be later than the form submission date (exceptions apply), and need to be later than (3)*	*The last Settlement Date on which the MSID Pair will be utilised or instructed. It's also the last day that the MSID pair can have ABSVD submitted. Once this date expires, a new registration is required for the MSID to be utilised/ABSVD'd.*	FALSE	dd/mm/yyyy
(5)	Import MSID	1800000000030	*First 2 digits need to be in inclusive range [10-38]. First 2 digits need to be equal to first two digits of (9).*	*13-digit Import MPAN. Full MPAN is comprised of 21 digits, however, first 8 digits are supplementary data, which is not necessary for registration, and is almost always omitted when providing MPAN data.*	FALSE	0000000000000

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(6)	MSID Import Customer Consent Flag	TRUE	*Can be changed post-initial registration. Overriding of this field is explained in 'Attachment 1'.*	*Consent flag in this field refers to consent to Elexon sharing the Import MSID's ABSVD volumes with the Energy Supplier. If the consent is TRUE, the SVAA must provide the ABSVD and ABSVD (Losses) to the Supplier responsible for the metering system. If the consent is FALSE, the data will NOT be sent to the Supplier. This field refer to the consent for the IMPORT MSID only.*	FALSE	Boolean
(7)	Effective From Settlement Date {ICCF}	01/01/2023	*Need to be equal to (3) in the initial registration. Subsequent registrations need to start at the (8)+1 day.*	*The first Settlement Date on which the Import Customer Consent is valid. If the Consent Flag (either True or False) is not provided for any given Settlement Date, the MSID is not eligible for ABSVD on that Settlement date. Examples of that occurrence and ways of resolving it can be found in 'Attachment 1'.*	FALSE	dd/mm/yyyy
(8)	Effective To Settlement Date {ICCF}	26/06/2024	*Should be equal to (4) in the initial registration. MSIDP is not eligible for ABSVD once date (8) passes, unless a follow-up registration is submitted.*	*The last Settlement Date on which the Import Customer Consent is valid. If the Consent Flag (either True or False) is not provided for any given Settlement Date, the MSID is not eligible for ABSVD on that Settlement date. Examples of that occurrence and ways of resolving it can be found in 'Attachment 1'.*	FALSE	dd/mm/yyyy
(9)	Export MSID	1800000000031	*First 2 digits need to be in inclusive range [10-38]. First 2 digits need to be equal to first two digits of (5). Export ID is optional but should be provided if known.*	*13-digit Export MPAN. Full MPAN is comprised of 21 digits, however, first 8 digits are supplementary data, which is not necessary for registration, and is almost always omitted when providing MPAN data. Export MPAN is not mandatory for the registration, however, should be provided if Unit it belongs to is capable of metering on Export.*	TRUE	0000000000000

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(10)	MSID Export Customer Consent Flag	FALSE	*Can be changed post-initial registration. Overriding of this field is explained in 'Attachment 1'.*	*Consent flag in this field refers to consent to Elexon sharing the Export MSID's ABSVD volumes with the Energy Supplier. If the consent is TRUE, the SVAA must provide the ABSVD and ABSVD (Losses) to the Supplier responsible for the metering system. If the consent is FALSE, the data will NOT be sent to the Supplier. This field refer to the consent for the EXPORT MSID only.*	TRUE if (9) is Blank	Boolean
(11)	Effective From Settlement Date {ECCF}	01/01/2023	*Need to be equal to (3) in the initial registration. Subsequent registrations need to start at the (8)+1 day.*	*The first Settlement Date on which the Export Customer Consent is valid. If the Consent Flag (either True or False) is not provided for any given Settlement Date, the MSID is not eligible for ABSVD on that Settlement date. Examples of that occurrence and ways of resolving it can be found in 'Attachment 1'.*	TRUE if (9) is Blank	dd/mm/yyyy
(12)	Effective To Settlement Date {ECCF}	26/06/2024	*Should be equal to (4) in the initial registration. MSIDP is not eligible for ABSVD once date (12) passes, unless a follow-up registration is submitted.*	*The last Settlement Date on which the Export Customer Consent is valid. If the Consent Flag (either True or False) is not provided for any given Settlement Date, the MSID is not eligible for ABSVD on that Settlement date. Examples of that occurrence and ways of resolving it can be found in 'Attachment 1'.*	TRUE if (9) is Blank	dd/mm/yyyy

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APPENDIX 2

ABSVD Customer Consent Flag Continuity

MSIDP Effective period submitted in the initial registration should match the Consent Effective period.
However, according to P354 Business Requirements, Service Provider is allowed to change their Consent Flag at any time, given that sufficient notice is given. This notice period is 2 working days for ESO->Elexon communication, and similar notice should be observed in Service Provider->ESO Communication.
To allow this, subsequent MSIDP registrations of the same MSIDP will take priority over previous iteration, given that the MSIDP Effective period remains.

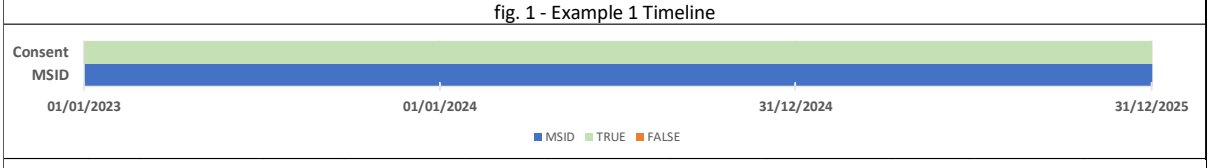
Examples of valid consent-related changes:

EXAMPLE 1 - 1st REGISTRATION - first submission of an MSIDP
Note: MSID's consents will be updated in the next example

Party ID	GSP Group ID	Effective From Settlement Date {MSIDP}	Effective To Settlement Date {MSIDP}	Import MSID	MSID Import Customer Consent Flag	Effective From Settlement Date {ICCF}	Effective To Settlement Date {ICCF}	Export MSID	MSID Export Customer Consent Flag	Effective From Settlement Date {ECCF}	Effective To Settlement Date {ECCF}
NGC	_N	01/01/2023	31/12/2025	1800000000032	TRUE	01/01/2023	31/12/2025	1800000000033	TRUE	01/01/2023	31/12/2025

Example 1 comments: Consent is provided for the entire MSIDP Effective period - 01/01/2023 - 30/11/2025

fig. 1 - Example 1 Timeline

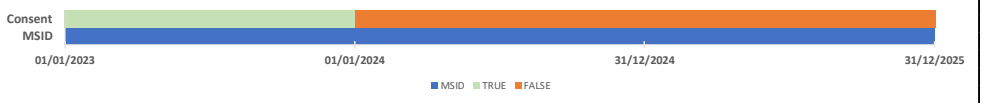


EXAMPLE 2 - Adjustment of Consent
Note: This adjustment should be submitted at least 2 working days before 01/01/2024, i.e. 28/12/2023

Party ID	GSP Group ID	Effective From Settlement Date {MSIDP}	Effective To Settlement Date {MSIDP}	Import MSID	MSID Import Customer Consent Flag	Effective From Settlement Date {ICCF}	Effective To Settlement Date {ICCF}	Export MSID	MSID Export Customer Consent Flag	Effective From Settlement Date {ECCF}	Effective To Settlement Date {ECCF}
NGC	_N	01/01/2023	31/12/2025	1800000000032	FALSE	01/01/2024	31/12/2025	1800000000033	FALSE	01/01/2024	31/12/2025

Example 2 comments: Consent is to be set to FALSE for both Import and Export, effective from 01/01/2024.
Final consent settings for this MSIDP will be TRUE - (01/01/2023-31/12/2023) and FALSE - (01/01/2024 - 30/11/2025)

fig. 2 - Example 1+2 Timeline

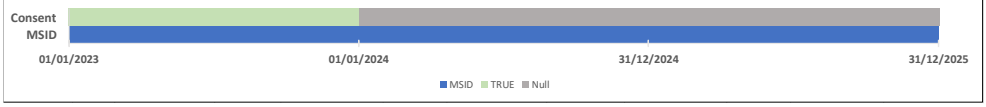


EXAMPLE 3 - 1st REGISTRATION - first submission of an MSIDP
Note: MSID's consent doesn't cover the entire MSIDP Effective period.

Party ID	GSP Group ID	Effective From Settlement Date {MSIDP}	Effective To Settlement Date {MSIDP}	Import MSID	MSID Import Customer Consent Flag	Effective From Settlement Date {ICCF}	Effective To Settlement Date {ICCF}	Export MSID	MSID Export Customer Consent Flag	Effective From Settlement Date {ECCF}	Effective To Settlement Date {ECCF}
NGC	_N	01/01/2023	31/12/2025	1800000000032	TRUE	01/01/2023	31/12/2023	1800000000033	TRUE	01/01/2023	31/12/2023

Example 3 comments: Both Consents will become null on 01/01/2024, making MSIDP ineligible for ABSVD.

fig. 3 - Example 3 Timeline

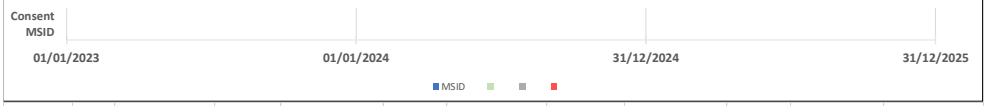


EXAMPLE 4 - Re-registration of consent
Note: Consent re-registration didn't cover the entire MSIDP Effective period.

Party ID	GSP Group ID	Effective From Settlement Date {MSIDP}	Effective To Settlement Date {MSIDP}	Import MSID	MSID Import Customer Consent Flag	Effective From Settlement Date {ICCF}	Effective To Settlement Date {ICCF}	Export MSID	MSID Export Customer Consent Flag	Effective From Settlement Date {ECCF}	Effective To Settlement Date {ECCF}
NGC	_N	01/01/2023	31/12/2025	1800000000032	TRUE	01/02/2024	31/12/2025	1800000000033	TRUE	01/02/2024	31/12/2025

Example 4 comments: The Consents remains null for January 2024, making MSIDP ineligible for ABSVD in that period.

Below timeline illustrates the consent changes in relation to the MSID Effectiveness period in example 3



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APPENDIX 3

Failures and actions

The table below illustrates various End to End failure scenarios wherein a DER might become unavailable during the service, or could potentially affect settlement process, outlining the subsequent actions to be taken by each party involved.

Stage	Failure	NGEO / UKPN Action	DER Impact/Action	Impact on Settlement
Ahead of Service Start / During Safety Window (The DER has not been issued with a 'Dispatch' instruction)	DER <> DNO link failure	DER will be marked as 'unavailable' by DNO until API communications re-established.	UKPN and DER will follow relevant process to resolve the issue.	N/A No new instruction instigated by NGESO until the issue is resolved and DER become available again.
	Loss of Real-time Metering data DNO <> NGESO	DER will be marked as 'unavailable' until real-time metering data being made available again.	None	N/A No new instruction instigated by NGESO until the issue is resolved and DER become available again.
	NGESO <> DNO link failure	The likelihood of this happening is minimal. DER will be marked as 'unavailable' until the issue is resolved.	None	N/A No new instruction instigated by NGESO until the issue is resolved and DER become available again.
	DNO Network Management System failure (No impact on Real-Time Metering data or NGESO-UKPN API link)	The likelihood of this happening is minimal. DER will be marked as 'unavailable' until the issue is resolved.	None	N/A No new instruction instigated by NGESO until the issue is resolved and DER become available again.
	UKPN Manual Intervention (To Cancel/Reject dispatch instruction during Safety Window, this will be initiated by UKPN Control Room not NGESO)	In rare scenarios and due to Safety and Security reasons, the UKPN Control Team reserves the right to reject or cancel NGESO Dispatch instructions during the Safety Window. DERs will be marked as 'unavailable' until network is stable and secure.	None	N/A No new instruction instigated by NGESO until the issue is resolved and DER become available again.
During Service Delivery (The DER has been issued with a 'Dispatch'	DER <> DNO link failure	DER will be marked as 'unavailable' by DNO until API communications re-established.	UKPN and DER will follow relevant process to resolve the issue.	The DER will **be paid** for any reduced MW volume for that SP as long as they comply with the NGESO "Dispatch" instruction. NGESO

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instruction and they are providing the service)				will still receive the real time metering data via UKPN infrastructures.
	Loss of Real-Time Metering data DNO <> ESO	NGESO will send a 'Cease' instruction to DER via UKPN. DER will be marked as 'unavailable' until real-time metering data being made available again.	For DER 'in service', it is the DER's responsibility for settlement to submit their own metering data post event for the period of which the UKPN metering data is lost, through the dispute process defined by NGESO.	The DER will **not be paid** for any reduced MW volume for that SP **unless** they provide their own metering data post event to NGESO.
	NGESO <> DNO link failure	NGESO and UKPN may follow the operational procedure to issue a 'Cease' instruction to the DER when necessary.	None	The DER will **not be paid** for any reduced MW volume for that SP. Instruction.
	DNO Network Management System failure (No impact on Real-Time Metering data or NGESO-UKPN API link)	The likelihood of this happening is minimal. NGESO may send a 'Cease' instruction to DER via automated process or by following a manual process between NGESO and UKPN.	None	The DER will **be paid** for any reduced MW volume for that SP as long as they comply with the NGESO "Dispatch" instruction.
	UKPN Manual Intervention (To Send Cease instruction, this will be initiated by UKPN Control Room not NGESO)	In rare scenarios and due to Safety and Security reasons, the UKPN Control Team reserves the right to send a 'Cease Instruction' to DER during the service delivery. DERs will be marked as 'unavailable' until network until network is stable and secure.	None	The DER will **not be paid** for any reduced MW volume for that SP.
End of Service Delivery (NGESO issued a 'Cease' instruction)	DER <> DNO link failure	DER will be marked as 'unavailable' by DNO until comms issue is resolved.	UKPN and DER will follow relevant process to resolve the issue.	The DER will **be paid** for any reduced MW volume for that SP.
	Loss of Real-Time Metering data DNO <> ESO	NGESO may send a 'Cease' instruction to DER via UKPN. DER will be marked as 'unavailable' until real-time metering data being made available again.	None	The DER will **be paid** for any reduced MW volume for that SP**.**
	NGESO <> DNO link failure	NGESO and UKPN will follow a manual process to issue a 'Cease' instruction to the DER when necessary.	None	The DER will **be paid** for any reduced MW volume for that SP**.** However, due to manual process, there could be a delay in receiving a

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				'cease' instruction, enabling the DER to initiate the ramp-up process.
	DNO Network Management System failure (No impact on Real-Time Metering data or NGESO-UKPN API link)	NGESO and UKPN will follow a manual process to issue a 'Cease instruction' to the DER when necessary.	None	The DER will **be paid** for any reduced MW volume for that SP**.**
	UKPN Manual Intervention (To Prevent DER to ramp up, this will be initiated by UKPN Control Room not NGESO)	In rare scenarios and due to Safety and Security reasons, the UKPN Control Team reserves the right to prevent DER to ramp up at the end of service delivery i.e., by rejecting the NGESO 'Cease Instruction'. DERs will be marked as 'unavailable' until network stability is restored.	None	The DER will **be paid** for any reduced MW volume for that SP**.**

DER non-compliance > process TBC

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APPENDIX 4

SMP Registration Data Fields

M = Mandatory
O = Optional

New Asset Creation				
Section	**Field Name**	**Field type**	**M/O**	**Remark**
Asset Name	Asset Name	Input field	M	**As per Connection Agreement to allow us to identify your asset correctly**
Asset Details	Asset Ownership	Choose Radio button - I am the asset owner - I am not the asset owner	M	
	Company Reg Number of Owner	Input field	O	To be enabled only if User selects ''I am not the asset owner'' above.
	Asset Type	Select Checkbox - Generation Unit - Demand Unit	M	if Applicable markets - RDP MWD then Asset Type - defaulted to Gen Unit
	Effective From Date	Select date	M	*Please provide your asset energisation date or commissioning date. If your asset energisation date is in the past, kindly enter today's date*
	Fuel Type	Dropdown	M	
	Applicable Market	Radio Button Balancing Services RDP -MW Dispatch	M	

Connection Details	Generation Capacity	Input Field	M	This is the Maximum Registered **Export** Capacity and applicable only if the Unit type = Generation. A 50 MW battery can provide 50 MW generation and 50 MW demand **as per Connection Agreement**
	Demand Capacity	Input Field	M	Should be disabled if Applicable Market selected is RDP - MW Dispatch
	Connection Type	Radio Button - Firm - Flexible	M	Connection type field - defaulted to flexible if Applicable market is MWD. Firm Option field to be disabled.
	Connected to DNO	Select checkbox	O	Auto selected for Connection type = Flexible.
	DNO type	dropdown	M	Select DNO National grid electricity distribution UK Power Networks
	DNO Unique Reference Number	Input Field	M	Please provide your 7-character DNO Unique reference number. This will be provided to you from the DNO. **If unknown/unsure please contact your DNO contact for this**
	Connection Point voltage	dropdown	O	

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Site Location	Street/City/State/Country		O	
	Post Code	Input Field	M	Please provide the post code of the Asset location **as per Connection Agreement**
	Asset Latitude	Input Field	O	
	Asset Longitude	Input Field	O	
	Nearest Node	Input Field	O	Substation directly connected to or nearest substation. If connected to the distribution network, you can find the name of the nearest substation to your connection from the Embedded Capacity Register published by the relevant DNO. Industry format for nearest node is 6 characters as defined in the CUSC (Connection and Use of System Code) **as per Connection Agreement**
	Grid supply point (GSP)	Multiple choice selection from list	M	***Please select Primary GSP only. You can find the name of the nearest GSP of your connection from the Embedded Capacity Register published by the relevant DNO*** *as per Connection Agreement* *UK Power Networks:* https://ukpowernetworks.opendatasoft.com/pages/embedded_capacity_register/
	GSP Group ID	Dropdown	O	Defaulted to South Eastern England for MWD (for UKPN)
	Primary Dispatch Phone number	Country Code (Dropdown) Number (Input Field)	O	Please enter your Company phone number for MW Dispatch Service
	Secondary Dispatch Phone number	Country Code (dropdown) Number (Input Field)	O	Please enter your Company phone number for MW Dispatch Service
	Dispatch Fax number	Country Code (dropdown) Number (Input Field)	O	'Please enter the Dispatch fax number for the asset. Please note this field cannot be more than 40 characters''
	Site Contact Name/ Number	Input Fields	O	
	Agent Operational Email/ Phone	Input Fields	O	

MPAN details	Operational metering availability	Radio button - Yes - No	M	
	MPAN Import	Input field	M	13 digit number
	MPAN Export	Input field	M	13 digit number
	Additional MPAN Import	Input field	O	Disabled for MWD Service
	Additional MPAN Export	Input field	O	Disabled for MWD Service
Pricing for RDP				

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Price	Pricing data in £/MwH	Input field	M	We need to ensure the User submits at least one or Initial price before Unit. Service is Submitted.
Pre-qual for Service Parameters				
Current SMP Fields	**RDP-MWD Remarks**			
Allocated MW	Greyed Out (same as Generation capacity field captured in Asset reg)			
Recovery Period	Greyed Out			
Response Time	Greyed Out			
Cease Time	Greyed Out			
Max Utilisation Period	Greyed Out			
Min Non Zero Time	Greyed Out			
Ramp up rate(M)	Greyed out with Ramp up rate as "1"			
Ramp down rate(M)	Greyed out with Ramp down rate as "1"			
Service start date	Optional			
Service End date	Optional			
Operational metering available(M)	Defaulted to Yes or to be greyed Out			

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APPENDIX 5

The diagrams assist in explaining the end to end dispatch process and the cease instruction.

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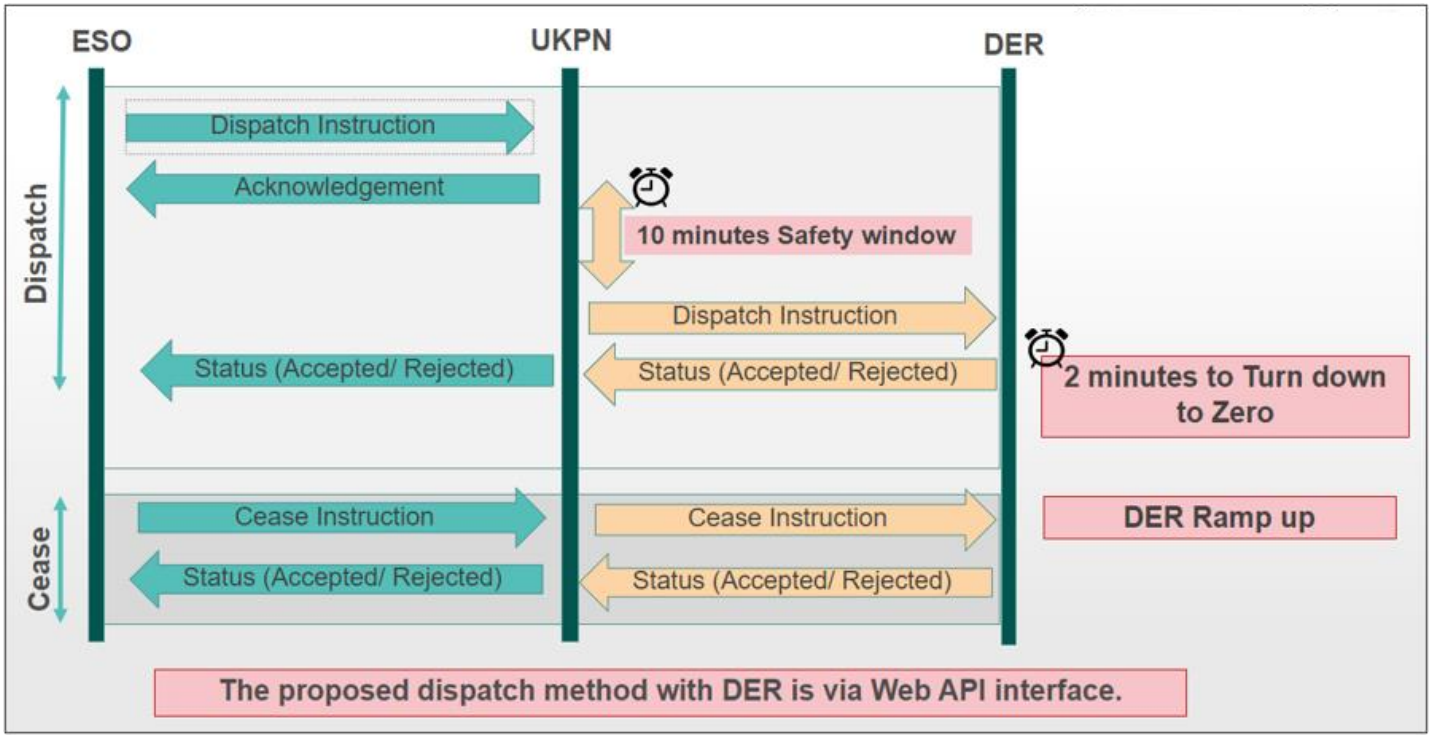
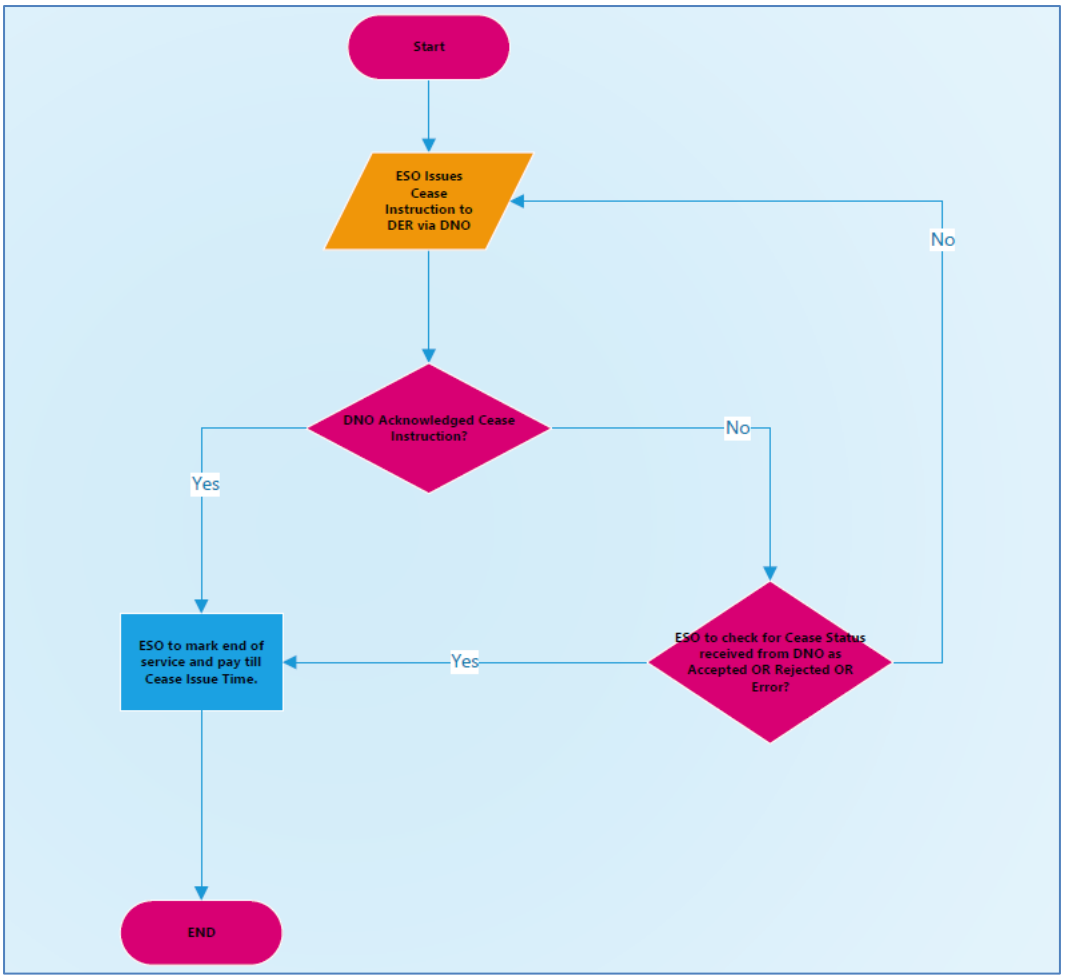

ESO
UKPN
DER
Dispatch
Dispatch Instruction
Acknowledgement
10 minutes Safety window
Dispatch Instruction
Status (Accepted/ Rejected)
Status (Accepted/ Rejected)
2 minutes to Turn down to Zero
Cease
Cease Instruction
Cease Instruction
DER Ramp up
Status (Accepted/ Rejected)
Status (Accepted/ Rejected)
The proposed dispatch method with DER is via Web API interface.


Start
ESO Issues Cease Instruction to DER via DNO
No
DNO Acknowledged Cease Instruction?
No
Yes
ESO to mark end of service and pay till Cease Issue Time.
Yes
ESO to check for Cease Status received from DNO as Accepted OR Rejected OR Error?
END