

Single Market Platform API

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Version 1.10

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Introduction

This document aims to provide a closer look at the APIs the National Energy System Operator (NESO) offers to enable access to the GB Single Market Platform (SMP) for Market Participants, via the Single Market Platform Application Programming Interface (SMP API). The SMP API provides a potentially more efficient way for Market Participants to interact with the SMP.

This document aims to provide Market Participants with:

- An understanding of what is required to interact with the SMP API
- An overview of the APIs published by the SMP API

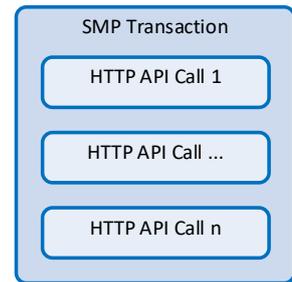
Further information

More information about the Single Market Platform, including the SMP API, is available on the [Single Market Platform](#) page of the NESO website.

To discuss opportunities offered by Single Market Platform and the SMP API, please contact NESO via your account manager or email Commercial.Operation@neso.energy

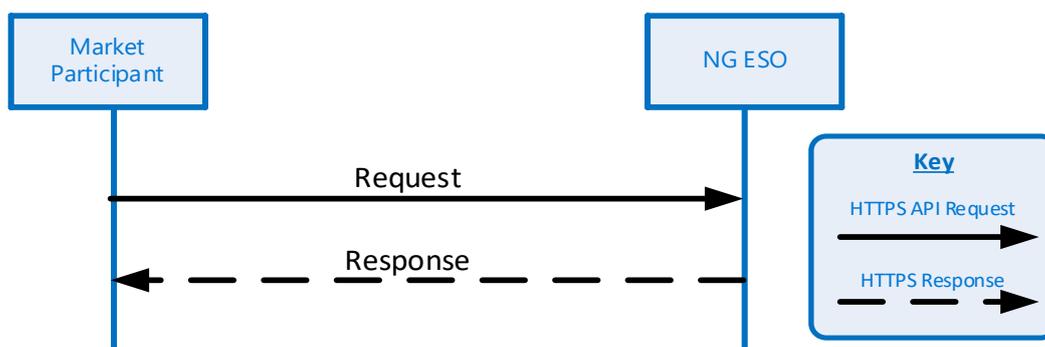
Overview

Transactions with the SMP API may be synchronous or asynchronous¹ and are made up of one or more HTTPS API Calls (All asynchronous transactions will be composed of an assembly of synchronous API calls) While a limited number of these HTTPS API calls will be initiated by NESO, the majority will be initiated by the Market Participant.



Transaction Patterns

Synchronous SMP API Transaction

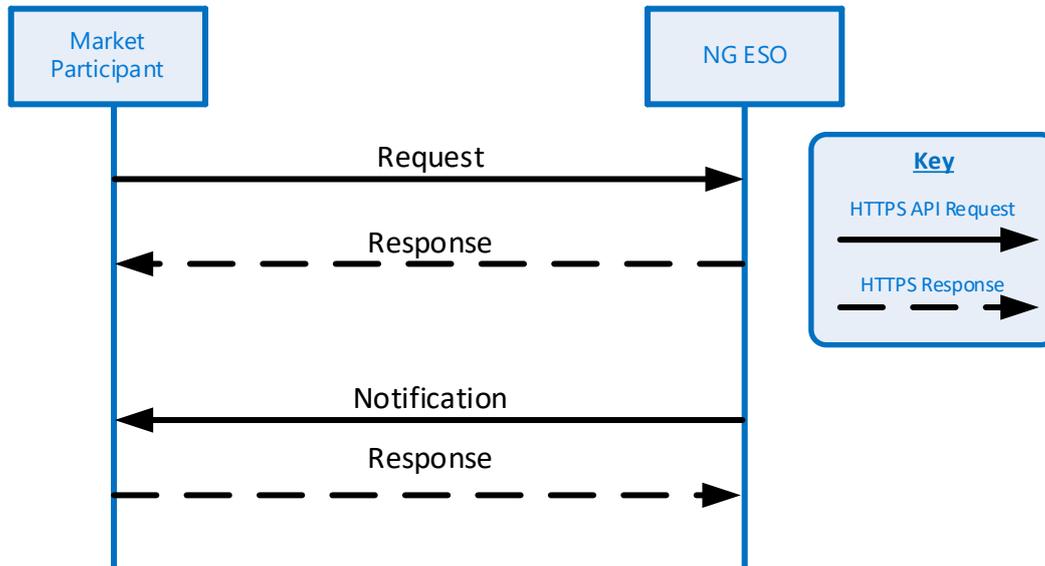


Synchronous SMP API Transactions will return the results of the requested transaction in the return payload of the HTTPS Call. The flows of information in this case will generally be:

- Market Participant initiates the transaction using an HTTPS API Request
- NESO processes the transaction
- NESO returns the results of the transaction in the response payload for the HTTPS API Call.

¹ An Asynchronous Transaction may be long running, so results of such a transaction are unlikely to be immediately available

Asynchronous SMP API Transaction



Asynchronous SMP API Transactions will return the results of the requested transaction in a notification, and Transaction State will be updated as the request progresses. The flows of information in this case will generally be along the format of:

- Market Participant initiates the transaction using an HTTPS API Request
- NESO validates the transaction request
- In the return HTTPS payload, NESO provides a Transaction ID and either indicates via Transaction State whether the transaction has been accepted (“Load Completed” or rejected (“Load Failed”) for further processing. In the event of a “Load Failed” being issued, the issues in the request should be resolved and a new request made.
- If NESO accepts the transaction,
 - After a period, NESO will initiate an HTTPS API call to the Market Participant with the transaction results. The Transaction State at this time be either “Process Completed” if no issues were found, or “Process Error” if issues were encountered.
 - The Market Participant is expected to acknowledge receipt of the transaction results with an HTTPS 200 OK message.

The Market Participant can query the state of a transaction at any time after the TransactionID has been issued using the Get Transaction Status API.

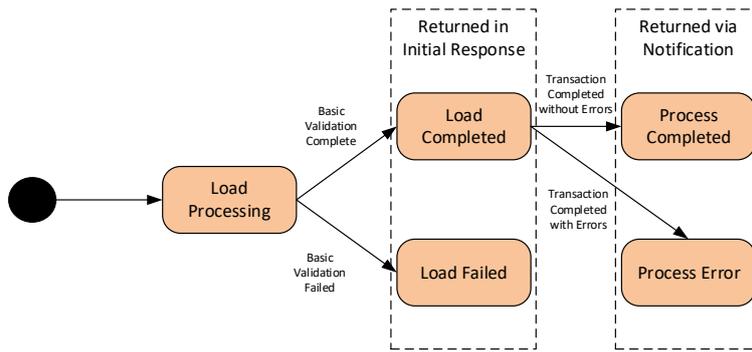


Diagram: Transaction States

Available SMP Transactions

Transaction	Type	Purpose	Pre-requisites	Associated API Calls
Authenticate	Sync	Request an Authentication Token	None	
Manage Asset	Sync & Async	Create new Asset(s) in SMP	Must have a valid authentication Token	Create Asset Notification GetTransactionState
Read Asset	Sync	Get details of Assets owned or managed by the user's account in SMP	Must have a valid authentication Token	Select Asset
Manage Unit	Sync & Async	Create a new Unit in SMP	Must have a valid authentication Token	Create Unit Notification GetTransactionState

Read Unit	Sync	Get details of Units owned or managed by the user's account in SMP	Must have a valid authentication Token	Select Unit
Read Service Catalog	Sync	Get details of Services available in SMP	Must have a valid authentication Token	Select Service Catalog
Manage Asset Testing Service	Sync & Async	Create new Asset Testing Service(s) in SMP	Must have a valid authentication Token	Create Asset Testing Service Notification GetTransactionState
Update Inventory	Sync & Async	Update Unit and Unit Service details, Asset Alignments, Asset Details and Asset Testing Service Details	Must have a valid authentication Token	Update Inventory Notification GetTransactionState

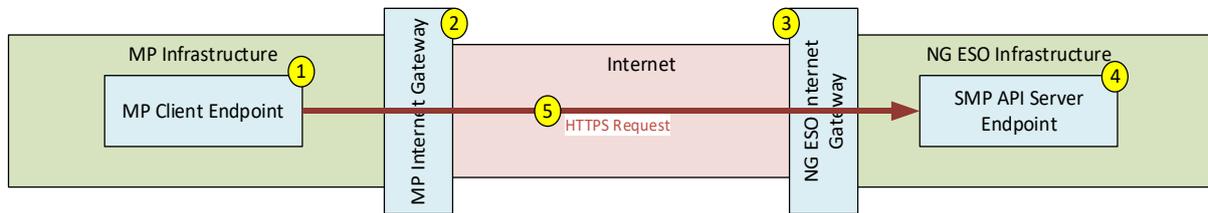
Available SMP API Calls

API Name	Initiated by	Purpose	Pre-requisites	Request	Response
Authenticate	Market Participant	Request an Authentication Token for use in other API Calls	None	Authentication Credentials	JWT token
Create Asset	Market Participant	Start a transaction to create new Asset(s) in SMP	Must have a valid authentication Token	Asset JSON (max 1000 Assets)	Transaction ID or Asset Error JSON
Create Unit	Market Participant	Start a transaction to create a new Unit in SMP	Must have a valid authentication Token	Unit JSON (max 1 unit)	Transaction ID or Unit Error JSON
Update Unit	Market Participant	Start a transaction to update a Unit in Draft or Accepted Status in SMP	Must have a valid authentication Token	Unit JSON (max 1 unit)	Transaction ID or Unit Error JSON
Create Asset Testing Service	Market Participant	Start a transaction to create a new Asset Testing Service in SMP	Must have a valid authentication Token	Asset Testing Service JSON (max 3000 Asset Testing Services)	Transaction ID or Unit Error JSON

Select Asset	Market Participant	Get information about Assets linked to the user's account in SMP	Must have a valid authentication Token		Asset JSON
Select Unit	Market Participant	Get information about Units linked to the user's account in SMP	Must have a valid authentication Token		Unit JSON
Get Transaction Status	Market Participant	Get the status of a submitted transaction	Must have a valid authentication Token Must have a valid Transaction ID	Transaction ID	Incomplete Transaction: Transaction Status Complete Transaction: Asset JSON or Unit JSON
Notify	SMP API	Notify the Market Participant of the results of an asynchronous transaction	SMP API must have been provided with URL, Username and Password in the API Call initiating the transaction.	Asset JSON or Unit JSON	-

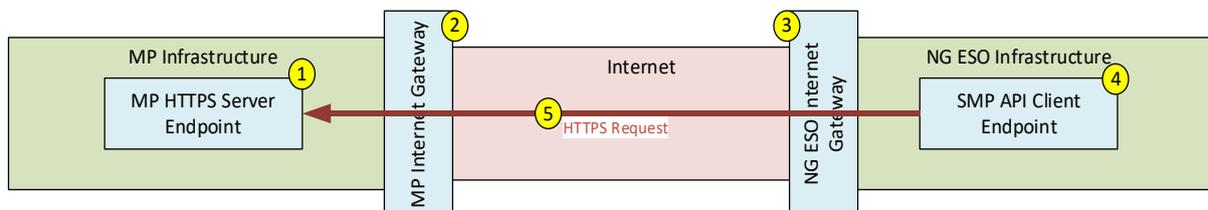
Market Participant Infrastructure Requirements

Market Participant Initiated Calls



#	Item	Type	Description
1	MP Client Endpoint	Component	This is the Client Endpoint that will initiate a connection to the SMP API.
2	MP Internet Gateway	Component	This is the Internet Gateway that provides connectivity between the Market Participant's Client Endpoint and the internet. It should implement appropriate security measures.
3	NEO Internet Gateway	Component	This is the Internet Gateway that provides connectivity between the SMP API and the Internet. It implements security points and checks, including validating incoming flows are coming from known sources.
4	SMP API Server Endpoint	Component	This is the HTTPS endpoint that the Market Participant will connect to when initiating a call to the SMP API. It will enforce that the client is using TLS1.2 or later.
5	HTTPS API Request	Flow	This is an instance of a connection from Market Participant to SMP API, for example to perform an authentication request or submit a transaction.

SMP API Initiated Calls



#	Item	Type	Description
---	------	------	-------------

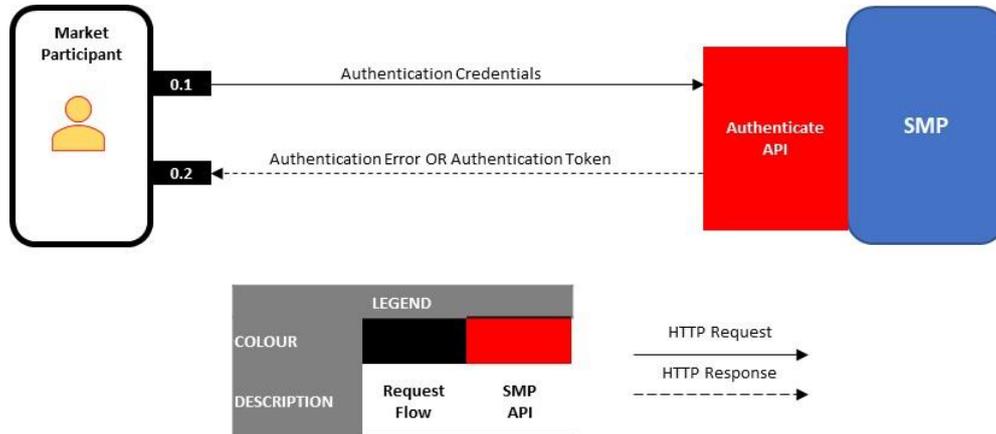
1	MP HTTPS Server Endpoint	Component	This is the server endpoint that the SMP API will connect to when it wants to send data to the Market Participant, e.g. the results of an Asynchronous Transaction. This must implement at least TLS1.2 (ideally 1.3+) and Basic Authentication.
2	MP Internet Gateway	Component	This is the Internet Gateway that provides connectivity between the Market Participant's HTTPS Server Endpoint and the internet. It should implement appropriate security measures to ensure the integrity of the connections.
3	NESO Internet Gateway	Component	This is the Internet Gateway that provides connectivity between the SMP API and the Internet. It implements security best practices.
4	SMP API Client Endpoint	Component	This is the Endpoint that will initiate a connection to the Market Participant. It will enforce that the Market Provider's HTTPS Endpoint is using TLS1.2 or later and provide the Username/Password for authorisation prior to presenting the outgoing message to the MP HTTPS Endpoint.
5	HTTPS Request	Flow	This is an instance of a connection from SMP API to Market Participant, for example to carry the results of an asynchronous transaction. Upon receipt of the data from SMP API, the Market Participant's HTTPS Server Endpoint should issue an HTTPS 200 OK message.

It should be noted that, to receive the results of an asynchronous transaction, the URL of the MP HTTPS Server Endpoint, and the username and password to be used for Basic Authentication will need to be submitted as part of the call initiating the asynchronous transaction. Providing this dynamically as part of the initiating call means the Market Participant can rotate the username/password in use and switch to alternative sites without manual intervention.

API: Authenticate

Overview

Market Participant to make a call to Authenticate API to get JWT Token which can then be provided to authorise access to other SMP APIs (e.g., Create Asset, Get Transaction Status etc).



#	Dataflow	Transfer Type	Payload
0.1	Request Transaction Status	Request	Authentication Credentials
0.2	Receive Transaction status	Response	One of: <ul style="list-style-type: none"> • Authentication Error • Authentication Token

Specification

Submission

The submission to the Authenticate API is a POST request made up of the following parameters:

PARAMETER	DESCRIPTION
-----------	-------------


```
Q29tIiwiYXBwaWRhY3IiOiIxIiwic2NvcGUiOiJhcGk6Ly81NzA3MGQxZS0zNWRmNS00ZTEkMDQtNDcwMzNlMzA  
00GJlL1NNUF9BUeKiLCJncmFudF9UeXB1IjoIUGFzc3dvcmQiLCJhcHBpZCI6IjY3MD11YjEyLTM1OTUtNjd1Mi05ZD  
A0LTc2ZjIzZWJjMDFiZSIsImlzcYI6IkVTTyIsImNsaWVudF9zZWNyZXQiOiJNeVNlY3JldCI6ImV4cCI6IjIwMjItM  
TEtMTdUMTA6Mjk6NDguNjI4WiIsIm1hdCI6IjIwMjItMTEtMTdUMTA6Mjk6NDguNjI4WiIsImNsaWVudF9pZCI6Ik15  
Q2xpZW50SUQifQ.PZgKpDsrPS9mDMz8uIL6nMChn5QHs2lhGhqTLNz6VGk"  
}
```


Request

The request is a GET call with the transaction ID suffixed to the GetTransactionStatusURL, i.e. <GetTransactionStatusURL>/<Transaction ID>, and the Authorisation JWT included in the headers,

Response

Invalid Transaction / Incomplete Transaction

If the transaction is unknown, then the API will return an Invalid Transaction response. If the transaction is incomplete, it will return the current status of the Transaction.

```
{  
  <Transaction Block>      Information to notify of transaction information – see “Model –  
                           Transaction” for key-value pairs contained in <Transaction Block>  
}
```

Complete Transaction – Create Unit

Please see Notify Response Payloads in Create Asset

Complete Transaction – Create Asset

Please see Notify Response Payloads in Create Asset

Payload Examples

Response – Transaction Incomplete

```
{  
  "Transaction ID":" CL-0000000143",  
  "Transaction Status":"Load Completed",  
  "Transaction Type":"Asset",  
  "Action Type":"Create"  
}
```

Response – Invalid Transaction

```
{  
  "Transaction ID":" CL-0000000143",  
  "Error":"Unable to locate transaction"  
}
```

Response – Create Asset Complete

Please see Notify Sample Payloads in Create Asset

Response – Create Unit Complete

Please see Notify Sample Payloads in Create Unit

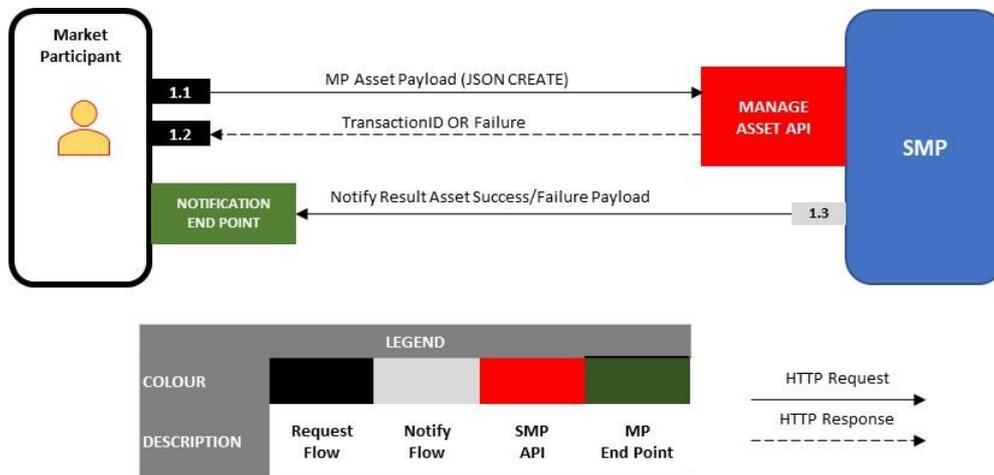
Model – Transaction

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
O	Transaction ID	Text(10)	0000000418		Will be null if payload fails basic validation
M	Transaction Status	Text(10)	Process Completed	See Transaction State Diagram	
M	Transaction Type	Text(10)	Asset	"Asset", "Unit"	
M	Action Type	Text(10)	Create	"Create, Update"	

API: Create Asset

Overview



#	Dataflow	Transfer Type	Payload
1.1	Submit Asset Transaction	Request	JSON Asset Payload
1.2	Transaction Response	Response	One of: <ul style="list-style-type: none"> Failed Data Validation Transaction ID
1.3	Notification	Request	Asset Transaction JSON file providing: <ul style="list-style-type: none"> Successful records with SMP Asset ID Unsuccessful records with errors

Specification

Request

The request is a simple JSON payload made up of 2 sections:

Key

```
{  
  <Notify Block>,  
  
  "Assets":  
  [  
    {<Create Asset>},  
    {<Create Asset>}  
  ]  
}
```

Value

Information required for SMP API to notify of transaction completion – see “Model – Notify” for key-value pairs contained in <Notify Block>

Section containing information on the Assets to be loaded into SMP. It will consist of one or more instance of <Create Asset>. See “Model – Create Asset” for key-value pairs.

Response

A successful response is a JSON payload made up of 2 sections

```
{  
  <Transaction Block>,  
  
  "Assets":  
  [  
    {<Asset Block>},  
    {<Asset Block>}  
  ]  
}
```

Information to notify of transaction information – see “Model – Transaction” for key-value pairs contained in <Transaction Block>

Optional Section containing information on the Assets to be loaded into SMP. It will consist of one or more instance of <Asset Block>. See “Model – Create Asset” for key-value pairs.

Notify

After a Create Asset transaction has completed, the resulting notification will consist of a JSON payload

```
{  
  <Transaction Block>,  
  
}
```

Information to notify of transaction information – see “Model – Transaction” for key-value pairs contained in <Transaction Block>

Payload Models

Model – Notify

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
M	Notification Address	Text(255)	https://api.myco.com/SMPNotify/		
O	Notification Username	Text(255)	MyUsername		
O	Notification Password	Text(255)	MyPassword		

Model – Create Asset

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
M	Asset Name	Text(80)	MyAssetName		Must be Unique
O	Asset Owner Company ID	Text(30)	04031152		Companies House Number Must have an Approved Related Entity agreement between User's Account and Account belonging to the Company ID
O	Asset Agent Company ID	Text(30)	04031153		Companies House Number Must be the Companies House Number of the user's Account

Asset Owner Company ID must be populated in order for the user to populate this payload tag

M	Asset Type	Picklist (Multi-Select)	Generation Unit	See Appendix Picklist – Unit Types	
M	Applicable Market	Picklist	Balancing Services	See Appendix Picklist – Asset Markets	
M	Effective From Date	Date	2022-11-11	YYYY-MM-DD	Must be today or later
M	Fuel Type	Picklist	Batteries	See Appendix Picklist – Fuel Types	
O	Other Fuel Type	Text(255)	My Fuel Type		Mandatory if “Fuel Type” = “Other”
O	Generation Capacity	Number(15,3)	50	XXXXXXXXXXXXXXXXXXX.XXX	Unit: MW Mandatory if “Asset Type” = “Generation Unit”
O	Demand Capacity	Number(15,3)	50	XXXXXXXXXXXXXXXXXXX.XXX	Unit: MW Mandatory if “Asset Type” = “Demand Unit”
M	Connection Type	Picklist	Firm	See Appendix Picklist – Connection Type	
O	Connection Method	Picklist	Firm	See Appendix Picklist – Connection Method	
M	Connected to DNO	Picklist	True	See Appendix Picklist – Boolean	
					Mandatory if “Connected to DNO” = True
O	DNO	Picklist	SP Energy Networks	See Appendix Picklist - DNO	Must be one of ‘National Grid Electricity Distribution’ or ‘UK Power Networks’ if Applicable Market = RDP MW Dispatch
O	DNO Unique Reference Number	Text(10)	93265829452		Only required if “Connected to DNO” =

					True AND "Applicable Market" = "RDP MW Dispatch"
M	Connection Point Voltage (kV)	Picklist	400	See Appendix Picklist – Connection Point Voltage	Unit: KV
O	Other Connection Point Voltage	Number(16,2)	1100.00	XXXXXXXXXXXXXXXXXX.YY	Unit: KV Mandatory if "Connection Point Voltage (kV)" = "Other"
M	Postcode	Text(8)	AB6 7GH		
M	Longitude	Number(3,15)	51.707079	+/- XXX.YYYYYYYYYYYYYYY	Accepts -180 to +180
M	Latitude	Number(2,15)	-3.584902	+/- XX.YYYYYYYYYYYYYYY	Accepts -90 to +90
O	Nearest Node	Text(6)	EFG		Mandatory if "Applicable Markets = Balancing Services"
					Must be one of ABHA_1, ALVE_1, AXMI_1, BRWA_1, EXET_1, INDQ_1, LAND_1 or TAUN_1 if the DNO = National Grid Electricity Distribution and the Applicable Market = RDP MW Dispatch
M	GSP	Picklist (Multi-Select)	ABHA_1	See Appendix Picklist - GSP	Must be one of BOLN_1, NINF_1, SELL_1, CANT_1, RICH_1 if the DNO = UK Power Networks and the Applicable Market = RDP MW Dispatch
O	Other GSP	Text(10)	My GSP		Mandatory if "GSP" = "Others"

M	GSP Group ID	Picklist	Eastern England	See Appendix Picklist – GSP Group	Must be South Western England if the DNO = National Grid Electricity Distribution and the Applicable Market = RDP MW Dispatch
M	Primary Despatch Phone Number	Text(10)	7554456564		
M	Primary Despatch Phone Country	Picklist	United Kingdom	See Appendix - Picklist Country (Telephone)	Must be South Eastern England if the DNO = UK Power Networks and the Applicable Market = RDP MW Dispatch
M	Secondary Despatch Phone Number	Number(10)	7676567657		
M	Secondary Despatch Phone Country	Picklist	United Kingdom	See Appendix - Picklist Country (Telephone)	
O	Fax Despatch Phone Number	Text(10)	4645654643		
O	Fax Despatch Phone Country	Picklist	United Kingdom	See Appendix - Picklist Country (Telephone)	
M	Operational Metering Availability	Picklist	Yes	See Appendix Picklist – Operational Metering Availability	
O	Asset Size	Number(3,13)	50	XXX	Unit: MW
O	Site Contact Name	Text(255)	SMP User		
O	Site Contact Number	Number(10)	65767687688		
M	Site Street Address	Text(255)	Coronation Street		

M	Site City	Text(255)	Reading	
M	Site State or County	Text(255)	Berkshire	
M	Site Country	Text(255)	United Kingdom	
O	Agent or Applicant Operational Email	Email	smpuser@test.com	
O	Agent or Applicant Operational Phone	Number(10)	65767687688	
M	Capability	Text (255)	Domestic Demand Side Flexibility	See Appendix – Picklist Capability
M	Is the connection point voltage <= 0.415 kV (415 V)?	Picklist	Yes	Yes, No
M	Meter Refresh	Text (255)	>1s and <=30s Refresh Rate	

Model – Asset

This Model includes all fields in Model – Create Asset plus the following:

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload.

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
O	Asset ID	Number(10)	0000000636	XXXXXXXXXX	Will be returned if Assets Created successfully
O	Error Message	Long Text		O	Error Message

Model – Transaction

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
-----	-----	-----------	---------	----------------	-----------------------

O	Transaction ID	Text(10)	CL-0000000143	Will be null if payload fails basic validation
M	Transaction Status	Text(10)	Process Completed	See Transaction State Diagram
M	Transaction Type	Text(10)	Asset	"Asset", "Unit"
M	Action Type	Text(10)	Create	"Create"

Payload Samples

Request

```
{
  "Notification Address": "HTTPS://www.callback.xyztestenergy.co.uk",
  "Notification Username": "XYZ Test Energy",
  "Notification Password": "*****",
  "Action Type": "Create",
  "Assets": [{
    "Asset Name": "Asfordby",
    "Asset Owner Company ID": "2796628",
    "Asset Agent Company ID": "801002",
    "Asset Type": "Generation Unit",
    "Applicable Market": "RDP MW Dispatch",
    "Effective From Date": "2022-06-19",
    "Fuel Type": "Other",
    "Other Fuel Type": "Wind",
    "Generation Capacity MW": 50,
    "Connection Type": "Firm",
    "Connected to DNO": true,
    "DNO": "South Western England",
    "DNO Unique Reference Number": "DNO1234567",
    "Connection Point Voltage (kV)": "Other",
    "Other Connection Point Voltage": 1100.00,
    "Connection Method": "Distribution;Private Lines",
    "Postcode": "RG1 7QE",
    "Longitude": "51.707079",
    "Latitude": "-3.584902",
    "Nearest Node": "EFG123",
    "GSP": "ABHA_1",
    "Other GSP": ""
    "GSP Group ID": "Eastern England",
    "Primary Despatch Phone Country": "United Kingdom",
    "Primary Despatch Phone Number": "7554456564",
    "Secondary Despatch Phone Country": "United Kingdom",
    "Secondary Despatch Phone Number": "7676567657",
    "Fax Despatch Phone Country": "United Kingdom",
    "Fax Despatch Phone Number": "4645654643",
    "Operational Metering Availability": "Yes",
    "Asset Size MW": 50,
    "Site Contact Name": "SMP User1",
    "Site Contact Number": "5767687688",
    "Site Street Address": "Street1",
    "Site City": "Reading",
    "Site State or County": "Berkshire",
    "Site Country": "United Kingdom",
    "Capability": "Domestic Demand Side Flexibility",
    "Is the connection point voltage <= 0.415 kV (415 V)?": "No",
    "Meter Refresh": ">1s and <=30s Refresh Rate"
    "Agent or Applicant Operational Email": "user1@nationalgrid.com",
    "Agent or Applicant Operational Phone": "65767687688"
  }, {
    "Asset Name": "Lockleaze",
    "Asset Owner Company ID": "",
    "Asset Type": "Generation Unit;Demand Unit",
    "Applicable Market": "Balancing Services",
    "Effective From Date": "2022-11-30",
    "Fuel Type": "Batteries",
    "Other Fuel Type": "",
    "Generation Capacity MW": 50,
    "Demand Capacity MW": 50,
    "Connection Type": "Flexible",
    "Connected to DNO": false,
    "DNO": ""
  }
}
```

```

    "DNO Unique Reference Number": "",
    "Connection Point Voltage": "400",
    "Connection Method": "Distribution",
    "Postcode": "RG30 2HT",
    "Longitude": "41.707079",
    "Latitude": "-10.584902",
    "Nearest Node": "EFGABC",
    "GSP": "ABHA_1;Others",
    "Other GSP": "Other GSP"
    "GSP Group ID": "Eastern England",
    "Primary Despatch Phone Country": "United Kingdom",
    "Primary Despatch Phone Number": "7554456564",
    "Secondary Despatch Phone Country": "United Kingdom",
    "Secondary Despatch Phone Number": "7676567657",
    "Fax Despatch Phone Country": "United Kingdom",
    "Fax Despatch Phone Number": "4645654643",
    "Operational Metering Availability": "Yes",
    "Asset Size MW":50,
    "Site Contact Name": "SMP User2",
    "Site Contact Number": "5767687689",
    "Site Street Address": "Street2",
    "Site City": "Reading",
    "Site State or County": "Berkshire",
    "Site Country": "United Kingdom",
    "Capability": "Domestic Demand Side Flexibility",
    "Is the connection point voltage <= 0.415 kV (415 V)?": "No",
    "Meter Refresh": ">1s and <=30s Refresh Rate"
    "Agent or Applicant Operational Email": "user2@nationalgrid.com",
    "Agent or Applicant Operational Phone": "65767687689"
  }
}
}

```

Response - Success

```

{
  "Transaction ID":" CL-0000000143",
  "Transaction Status":"Load Completed",
  "Transaction Type":"Asset",
  "Action Type":"Create"
}

```

Response - Failure

```

{
  "Transaction ID":" CL-0000000143",
  "Transaction Status":"Load Failed",
  "Transaction Type":"Asset",
  "Action Type":"Create",
  "Assets":[
    {
      "Asset Name":"MyAsset01",
      "Error Message":" Operational Metering Availability: Missing Mandatory
Field"
    },
    {
      "Asset Name":"MyAsset02"
      "Error Message":"Fax Despatch Phone Number: Invalid Format"
    }
  ]
}
}

```

Notification - Failure

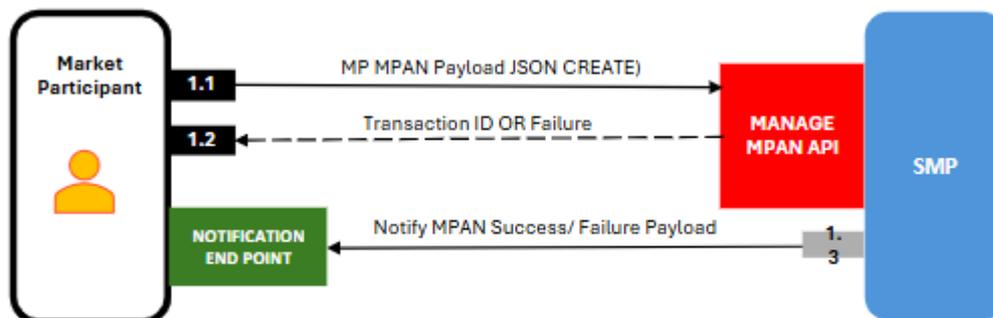
```
{
  "Transaction ID": "CL-0000000143",
  "Transaction Status": "Process Error",
  "Transaction Type": "Asset",
  "Action Type": "Create",
  "Assets": [
    {
      "Asset Name": "MyAsset01",
      "Error Message": "Asset with the same name already exists for this
company"
    },
    ...
  ],
  {
    "Asset Name": "MyAsset02",
    "Error Message": "Asset with the same name already exists for this
company"
  },
  ...
]
}
```

Notification - Success

```
{
  "Transaction ID": "CL-0000001135",
  "Transaction Status": "Process Completed",
  "Transaction Type": "Asset",
  "Action Type": "Create"
}
```

API: Create MPAN Pairs

Overview



#	Dataflow	Transfer Type	Payload
1.1	Submit Asset Transaction	Request	JSON MPAN Payload
1.2	Transaction Response	Response	One of: <ul style="list-style-type: none"> Failed Data Validation Transaction ID
1.3	Notification	Request	Asset Transaction JSON file providing: <ul style="list-style-type: none"> Successful records with SMP Asset ID Unsuccessful records with errors

Specification

Request

The request is a simple JSON payload made up of 2 sections:

Key	Value
{ <Notify Block>, "MPAN Pairs": [{<Create MPAN Pair>}, "MPAN Consent" {<Create MPAN Consent>}] }	Information required for SMP API to notify of transaction completion – see “Model – Notify” for key-value pairs contained in <Notify Block> Section containing information on the MPAN Pairs & Consent to be loaded into SMP .It will consist of one or more instance of <Create MPAN Pairs>. See “Model – Create MPAN Pairs” for key-value pairs. It is now mandatory to create MPAN Pair and Consent records for every Asset prior to aligning an asset to a Unit. The payload tags for MPAN Import/Export and Additional MPAN Import/Export have been removed from the Create Asset API as this API now supersedes the need for them to be included.

Response

A successful response is a JSON payload made up of 2 sections

```
{
  <Transaction Block>,      Information to notify of transaction information – see “Model –
                             Transaction” for key-value pairs contained in <Transaction Block>

  "MPAN Pairs":            Optional Section containing information on the MPAN Pairs and
  [                        Consents to be loaded into SMP.It will consist of one or more
    {<Create MPAN Pair>},   instance of <MPAN Pair Block>. See “Model – Create MPAN Pair” for
  "MPAN Consent"          key-value pairs.
    {<Create MPAN
  Consent>}
  ]
}
```

Notify

After a Create MPAN Pair transaction has completed, the resulting notification will consist of a JSON payload

```
{
  <Transaction Block>,      Information to notify of transaction information – see “Model
                             – Transaction” for key-value pairs contained in <Transaction
                             Block>
}
```

Payload Models

Model – Notify

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
M	Notification Address	Text(255)	https://api.myco.com/SMPNotify/		
O	Notification Username	Text(255)	MyUsername		
O	Notification Password	Text(255)	MyPassword		

Model – Create MPAN Pair

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
M	Asset ID	Text(15)	0000199306		Must be the Asset ID of an Asset owned or managed by the user's account. This is obtainable through the Select Asset API.
O	MPAN Import	Text(13)	1127146756189		Must be 13 digits long (MPANs) or 4 digits long (MSIDs). At least one of MPAN Import or MPAN Export values must be given.

O	MPAN Export	Text(13)	1123614756880			Must be 13 digits long (MPANs) or 4 digits long (MSIDs). At least one of MPAN Import or MPAN Export values must be given.
M	MPAN Start Date	Date (YYYY-MM-DD)	2025-10-20			Must be today or later
M	MPAN End Date	Date (YYYY-MM-DD)	2025-10-20			Must be today or later
O	MPAN Import Consent	Text (5)	True	True, False		Mandatory if value for 'MPAN Import' is present. Indicates consent to SVAA sharing the metered data applicable to this asset with the Supplier, as detailed by the BSC.
O	MPAN Export Consent	Text (5)	True	True, False		Mandatory if value for 'MPAN Export' is present. Indicates consent to SVAA sharing the metered data applicable to this asset with the Supplier, as detailed by the BSC.
M	MPAN Consent Start Date	Date (YYYY-MM-DD)	2025-10-20			Must be today or later
M	MPAN Consent End Date	Date (YYYY-MM-DD)	2025-10-20			Must be today or later

Model – Transaction

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
O	Transaction ID	Text(10)	CL-0000000143		Will be null if payload fails basic validation
M	Transaction Status	Text(10)	Load Completed	See Transaction State Diagram	
M	Transaction Type	Text(10)	MPAN Pair Consent	“MPAN Pair Consent”	
M	Action Type	Text(10)	Create	“Create”	

Payload Samples

Request

Up to 3 MPAN Pairs can be specified per Asset. Every MPAN Pair must have a corresponding MPAN Consent record.

```
{
  {
    "Notification Address": "HTTPS://www.callback.xyztestenergy.co.uk",
    "Notification Username": "XYZ Test Energy",
    "Notification Password": "dgfdsfgksh",
    "Action Type": "Create",
    "MPAN Pairs": [
      {
        "Asset ID": "0000101600",
        "MPAN Import": "1123456756700",
        "MPAN Export": "1123456756701",
        "MPAN Start Date": "2025-06-25",
        "MPAN End Date": "2025-06-26",
        "MPAN Consent": {
          "MPAN Import Consent": "True",
          "MPAN Export Consent": "True",
          "MPAN Consent Start Date": "2025-06-25",
          "MPAN Consent End Date": "2025-06-26"
        }
      },
      {
        "Asset ID": "0000101655",
        "MPAN Export": "1123456756770",
        "MPAN Start Date": "2025-06-25",
        "MPAN End Date": "2049-06-26",
        "MPAN Consent": {
          "MPAN Import Consent": "True",
          "MPAN Export Consent": "False",
          "MPAN Consent Start Date": "2025-06-25",
          "MPAN Consent End Date": "2049-06-26"
        }
      }
    ]
  }
}
```

Response - Success

```
{
  "Transaction ID": "CL-0000000300",
  "Transaction Status": "Load Completed",
  "Transaction Type": "MPAN Pair Consent",
  "Action Type": "Create"
}
```

Response - Failure

```
{
  "Transaction ID": "CL-0000000300",
  "Transaction Status": "Load Failed",
  "Transaction Type": "MPAN Pair Consent",
  "Action Type": "Create",
  "MPAN Pairs": [
    {
      "Asset ID": "0000101618",
      "MPAN Import": "1123456756789",
      "MPAN Export": "1123456756790",
      "Error Message": "MPAN End Date is Missing",
    }
  ]
}
```

```

    "MPAN Consent": {
      "Asset ID": "0000101618",
      "MPAN Import Consent": "True",
      "MPAN Export Consent": "True",
      "Error Message": "MPAN Consent End Date is Missing"
    }
  ]
}

```

Notification - Failure

```

{
  "Transaction ID": "CL-0000000798",
  "Transaction Status": "Process Error",
  "Transaction Type": "MPAN Pair Consent",
  "Action Type": "Create",
  "MPAN Pairs": [
    {
      "Asset ID": "0000101618",
      "MPAN Import": "1123456756789",
      "MPAN Export": "1123456756790",
      "Error Message": "MPAN Pair: Missing Mandatory Field",
      "MPAN Consent": {
        "Asset ID": "0000101618",
        "MPAN Import Consent": "True",
        "MPAN Export Consent": "False",
        "Error Message": "MPAN Consent End Date is Missing"
      }
    },
    {
      "Asset ID": "0000101618",
      "MPAN Import": "1123456756789",
      "MPAN Export": "1123456756790",
      "Error Message": "null",
      "MPAN Consent": {
        "Asset ID": "0000101618",
        "MPAN Import Consent": "True",
        "MPAN Export Consent": "False",
        "Error Message": "null"
      }
    }
  ]
}

```

Notification - Success

```

{
  "Transaction ID": "CL-0000000291",
  "Transaction Status": "Process Completed",
  "Transaction Type": "MPAN Pair Consent",
  "Action Type": "Create"
}

```

API: Select Asset

Overview

#	Dataflow	Transfer Type	Payload
3.1	Submit Asset Request	Request	
3.2	Transaction Response	Response	<ul style="list-style-type: none"> Transaction ID
3.3	Notification	Request	Asset Transaction JSON file providing: <ul style="list-style-type: none"> JSON file with Asset details

Payload Samples

Notification - Success

```
{
  "Transaction Type": "Asset"
  "Transaction Status": "Success"
  "Action Type": "Select",
  "Assets":
  [
    {
      "Asset Id": "0000106721",
      "Asset Name": "BS Test Asset 3",
      "Asset Owner Name": "JAQUARD LTD",
      "Asset Owner Account Unique Identifier": 10007725,
      "Asset Owner Company ID": "11012159",
      "Asset Agent Name": null,
      "Asset Agent Company ID": null,
      "Asset Agent Account Unique Identifier ": 10048332,
      "Type": "Generation Unit",
      "Asset Status": "Versioned",
      "Applicable Market": "Balancing Services",
      "Effective From Date": 2024-03-05, - Date (U)
      "Effective To Date": 2024-04-03, - Date(U)
      "Fuel Type": "Biomass",
      "Other Fuel Type": null,
      "Generation Capacity": 60, - Number(C)
      "Demand Capacity": null, - Number(C)
      "Connection Type": "Firm",
      "Connected to DNO": false, - Boolean(C)
      "DNO": null,
      "DNO Unique Reference Number": null,
      "Connection Point Voltage": null,
      "Other Connection Point Voltage kV": null, - Number (C)
      "Connection Method": null,
      "Postcode": "12345",
      "Longitude": 73.01,
      "Latitude": 72.01,
      "Nearest Node": "sdf",
      "GSP": "ABHA_1",
      "Other GSP": null,
      "GSP Group ID": "East Midlands",
      "Primary Despatch Phone Country": "United Kingdom",
      "Primary Despatch Phone Number": "3333333333",
      "Secondary Despatch Phone Country": "United Kingdom",
    }
  ]
}
```

```
"Secondary Despatch Phone Number": "4444444444",
"Fax Despatch Phone Country": null,
"Fax Despatch Phone Number": null,
"Operational Metering Availability": "Yes",
"Asset Size": null, - Number (C)
"Site Contact Name": null,
"Site Contact Number": null,
"Site Street Address": "St",
"Site City": "qw",
"Site State or County": "qwe",
"Country": "qw",
"Capability": "Domestic Demand Side Flexibility",
"Is the connection point voltage <= 0.415 kV (415 V)?": "No",
"Meter Refresh": ">1s and <=30s Refresh Rate"
"Agent or Applicant Operational Email": null,
"Agent or Applicant Operational Phone": null,
"Asset Testing Service":[
  {
    "Date Approved by ITE": "2024-03-19",
    "Service Name": "Dynamic Regulation LF",
    "Service Code": "DRL",
    "Tested Capacity": 60,
    "Unit of Measurement": "MW"
  }
],
{
  "Asset Id": "0000106721",
  "Asset Name": "BS Test Asset 3",
  "Asset Owner Name": "JAQUARD LTD",
  "Asset Owner Account Unique Identifier": 10007725,
  "Asset Owner Company ID": "11012159",
  "Asset Agent Name": "OPEN LIMITED",
  "Asset Agent Company ID": "04037885",
  "Asset Agent Account Unique Identifier ": 10048311,
  "Type": "Generation Unit",
  "Asset Status": "Accepted",
  "Applicable Market": "Balancing Services",
  "Effective From Date": "2024-04-04",
  "Effective To Date": "2024-04-05",
  "Fuel Type": "Biomass",
  "Other Fuel Type": null,
  "Generation Capacity": 60,
  "Demand Capacity": null,
  "Connection Type": "Firm",
  "Connected to DNO": false,
  "DNO": null,
  "DNO Unique Reference Number": null,
  "Connection Point Voltage": null,
  "Other Connection Point Voltage kV": null,
  "Connection Method": null,
  "Postcode": "12345",
  "Longitude": 73.01,
  "Latitude": 72.01,
  "Nearest Node": "sdf",
  "GSP": "ABHA_1",
  "Other GSP": null,
  "GSP Group ID": "East Midlands",
  "Primary Despatch Phone Country": "United Kingdom",
  "Primary Despatch Phone Number": "3333333333",
  "Secondary Despatch Phone Country": "United Kingdom",
  "Secondary Despatch Phone Number": "4444444444",
  "Fax Despatch Phone Country": null,
  "Fax Despatch Phone Number": null,
  "Operational Metering Availability": "Yes",
  "Asset Size": null,
  "Site Contact Name": null,
  "Site Contact Number": null,
  "Site Street Address": "St",
```

```
"Site City": "qw",
"Site State or County": "qwe",
"Site Country": "qw",
"Capability": "Domestic Demand Side Flexibility",
  "Is the connection point voltage <= 0.415 kV (415 V)?": "No",
  "Meter Refresh": ">1s and <=30s Refresh Rate"
"Agent or Applicant Operational Email": null,
"Agent or Applicant Operational Phone": null,
"Asset Testing Service": [
  {
    "Date Approved by ITE": "2024-03-08",
    "Service Name": "Dynamic Regulation LF",
    "Service Code": "DRL",
    "Tested Capacity": 50,
    "Unit of Measurement": "MW"
  }
],
{
  "Asset Id": "0000106759",
  "Asset Name": "Asset 2 29 Mar",
  "Asset Owner Name": "JAQUARD LTD",
  "Asset Owner Account Unique Identifier": 10007725,
  "Asset Owner Company ID": "11012159",
  "Asset Agent Name": null,
  "Asset Agent Company ID": null,
  "Asset Agent Account Unique Identifier ": 10048234,
  "Type": "Generation Unit;Demand Unit",
  "Asset Status": "Accepted",
  "Applicable Market": "Balancing Services",
  "Effective From Date": "2024-03-29",
  "Effective To Date": null,
  "Fuel Type": "CCGT",
  "Other Fuel Type": null,
  "Generation Capacity": 70,
  "Demand Capacity": 70,
  "Connection Type": "Firm",
  "Connected to DNO": false,
  "DNO": null,
  "DNO Unique Reference Number": null,
  "Connection Point Voltage": null,
  "Other Connection Point Voltage kV": null,
  "Connection Method": null,
  "Postcode": "70",
  "Longitude": 70,
  "Latitude": 70,
  "Nearest Node": "70",
  "GSP": "ABTH_1",
  "Other GSP": null,
  "GSP Group ID": "East Midlands",
  "Primary Despatch Phone Country": "United Kingdom",
  "Primary Despatch Phone Number": "9876543210",
  "Secondary Despatch Phone Country": "United Kingdom",
  "Secondary Despatch Phone Number": "9876543210",
  "Fax Despatch Phone Country": null,
  "Fax Despatch Phone Number": null,
  "Operational Metering Availability": "Yes",
  "Asset Size": null,
  "Site Contact Name": null,
  "Site Contact Number": null,
  "Site Street Address": "70",
  "Site City": "70",
  "Site State or County": "70",
  "Country": "70",
  "Capability": "Domestic Demand Side Flexibility",
  "Is the connection point voltage <= 0.415 kV (415 V)?": "No",
  "Meter Refresh": ">1s and <=30s Refresh Rate"
"Agent or Applicant Operational Email": null,
"Agent or Applicant Operational Phone": null,
```

```

    "Asset Testing Service": [
      {
        "Date Approved by ITE": "2024-03-30",
        "Service Name": "Dynamic Regulation HF",
        "Service Code": "DRH",
        "Tested Capacity": 90,
        "Unit of Measurement": "MW"
      },
      {
        "Date Approved by ITE": "2024-03-30",
        "Service Name": "Static FFR",
        "Service Code": "SFR",
        "Tested Capacity": 80,
        "Unit of Measurement": "MW"
      }
    ]
  }
]
}

```

API: Select MPAN Pair

Overview

This is an API for a user to read their MPAN & Consent Information. When calling the API, there are parameters that can be provided to filter the response and reduce the return payload:

assetId - If provided, limits the MPANs to those that are associated with the Asset ID provided

mpanUuid - If provided, limits the MPAN Pairs to those that match the list of MPAN UUIDs provided

Both are optional and both cannot be selected for the same transaction. They can be used as parameters as in the below example:

Params • Authorization • Headers (10) Body Pre-request Script Tests Settings			
Query Params			
<input type="checkbox"/>	Key	Value	Description
<input checked="" type="checkbox"/>	assetId	0000171573	
<input type="checkbox"/>	mpanUuid	100000000010134	
<input type="checkbox"/>	Key	Value	Description

#	Dataflow	Transfer Type	Payload
3.1	Submit MPAN Pair Request	Request	
3.2	Transaction Response	Response	• Transaction ID

3.3 Notification

Request

MPAN Transaction JSON file providing:

- JSON file with MPAN & MPAN Consent details
-

Payload Samples

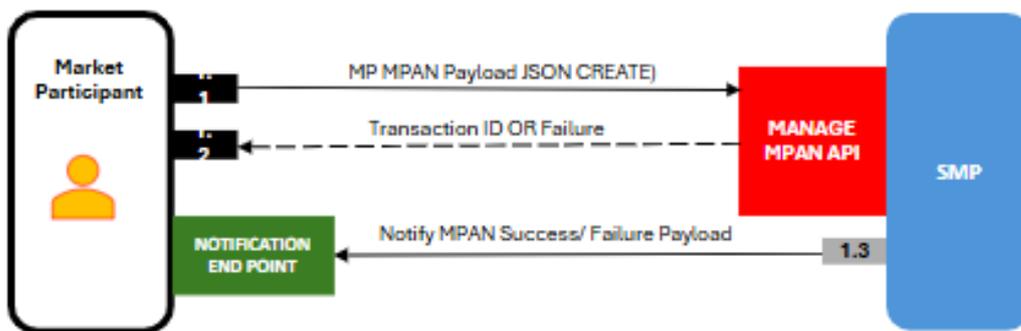
Notification - Success

```
{
  "Transaction Type": "MPAN Pair Consent",
  "Transaction Status": "Success",
  "Action Type": "Select",
  "MPAN Pairs": [
    {
      "Asset ID": "0000101600",
      "MPAN UUID": 1000000000000001,
      "MPAN Import": "1123456756700",
      "MPAN Export": "1123456756701",
      "MPAN Start Date": "2025-06-25",
      "MPAN End Date": "2025-06-30",
      "MPAN Consent": [
        {
          "MPAN Consent UUID": 1000000000000002,
          "MPAN Import Consent": "True",
          "MPAN Export Consent": "True",
          "MPAN Consent Start Date": "2025-06-25",
          "MPAN Consent End Date": "2025-06-26"
        }
      ]
    }
  ],
  {
    "Asset ID": "0000101655",
    "MPAN UUID": 1000000000000005,
    "MPAN Export": "1123456756779",
    "MPAN Start Date": "2025-06-25",
    "MPAN End Date": "2049-06-26",
    "MPAN Consent": [
      {
        "MPAN Consent UUID": 1000000000000004,
        "MPAN Import Consent": "True",
        "MPAN Export Consent": "False",
        "MPAN Consent Start Date": "2025-06-25",
        "MPAN Consent End Date": "2049-06-26"
      }
    ]
  }
]
```

Update MPAN Pairs

Overview

#	Dataflow	Transfer Type	Payload
1.1	Submit Asset Transaction	Request	JSON MPAN Payload
1.2	Transaction Response	Response	One of: <ul style="list-style-type: none"> Failed Data Validation Transaction ID
1.3	Notification	Request	Asset Transaction JSON file providing: <ul style="list-style-type: none"> Successful records with SMP Asset ID Unsuccessful records with errors



Specification

Request

The request is a simple JSON payload made up of 2 sections:

Key	Value
{ <Notify Block>,	Information required for SMP API to notify of transaction completion – see “Model – Notify” for key-value pairs contained in <Notify Block>
"MPAN Pairs": [Section containing information on the MPAN Pairs & Consent to be updated in SMP .It will consist of one or more instance

```

    {<Create MPAN Pair>},
    "MPAN Consent"
    {<Create MPAN
    Consent>}
  ]
}

```

of <Update MPAN Pairs>. See "Model – Update MPAN Pairs" for key-value pairs.

Response

A successful response is a JSON payload made up of 2 sections

```

{
  <Transaction Block>,
  "MPAN Pairs":
  [
    {<Create MPAN Pair>},
    "MPAN Consent"
    {<Create MPAN
    Consent>}
  ]
}

```

Information to notify of transaction information – see "Model – Transaction" for key-value pairs contained in <Transaction Block>

Optional Section containing information on the MPAN Pairs and Consents to be updated in SMP. It will consist of one or more instance of <MPAN Pair Block>. See "Model – Update MPAN Pair" for key-value pairs.

Notify

After an Update MPAN Pair transaction has completed, the resulting notification will consist of a JSON payload

```

{
  <Transaction Block>,
}

```

Information to notify of transaction information – see "Model – Transaction" for key-value pairs contained in <Transaction Block>

Payload Models

Model – Notify

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
M	Notification Address	Text(255)	https://api.myco.com/SMPNotify/		
O	Notification Username	Text(255)	MyUsername		
O	Notification Password	Text(255)	MyPassword		

Model – Update MPAN Pair

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
M	MPAN UUID	Number(15,0)	100000000000001		Must be the MPAN UUID associated with an Asset owned or managed by the user's account. This is obtainable through the Select MPAN Pair API.
M	Asset ID	Text(15)	0000199306		Must be the Asset ID of an Asset owned or managed by the user's account. This is obtainable through the Select Asset API.

O	MPAN Import	Text(13)	1127146756189		Must be 13 digits long (MPANs) or 4 digits long (MSIDs). At least one of MPAN Import or MPAN Export values must be given.
O	MPAN Export	Text(13)	1123614756880		Must be 13 digits long (MPANs) or 4 digits long (MSIDs). At least one of MPAN Import or MPAN Export values must be given.
M	MPAN Start Date	Date (YYYY-MM-DD)	2025-10-20		Must be today or later
M	MPAN End Date	Date (YYYY-MM-DD)	2025-10-20		Must be today or later
M	MPAN Consent UUID	Number(15,0)	100000000000002		Must be the MPAN Consent UUID associated with an Asset owned or managed by the user's account. This is obtainable through the Select MPAN Pair API.
O	MPAN Import Consent	Text (5)	True	True, False	Mandatory if value for 'MPAN Import' is present. Indicates consent to SVAA sharing the metered data applicable to this asset with the Supplier, as detailed by the BSC.
O	MPAN Export Consent	Text (5)	True	True, False	Mandatory if value for 'MPAN Export' is present. Indicates consent to SVAA sharing

					the metered data applicable to this asset with the Supplier, as detailed by the BSC.
M	MPAN Consent Start Date	Date (YYYY-MM-DD)	2025-10-20		Must be today or later
M	MPAN Consent End Date	Date (YYYY-MM-DD)	2025-10-20		Must be today or later

Model – Transaction

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
O	Transaction ID	Text(10)	CL-0000000143		Will be null if payload fails basic validation
M	Transaction Status	Text(10)	Load Completed	See Transaction State Diagram	
M	Transaction Type	Text(10)	MPAN Pair Consent	“MPAN Pair Consent”	
M	Action Type	Text(10)	Create	“Create”	

Payload Samples

Request

Up to 3 MPAN Pairs can be specified per Asset. Every MPAN Pair must have a corresponding MPAN Consent record.

```
{
  "Notification Address": "HTTPS://www.callback.xyztestenergy.co.uk",
  "Notification Username": "XYZ Test Energy",
  "Notification Password": "*****",
  "Action Type": "Update",
  "MPAN Pairs": [
    {
      "Asset ID": "0000101600",
      "MPAN UUID": 1000000000000001,
      "MPAN Import": "1123456756700",
      "MPAN Export": "1123456756701",
      "MPAN Start Date": "2025-06-25",
      "MPAN End Date": "2025-06-30",
      "MPAN Consent": [
        {
          "MPAN Consent UUID": 1000000000000002,
          "MPAN Import Consent": "True",
          "MPAN Export Consent": "False",
          "MPAN Consent Start Date": "2025-06-25",
          "MPAN Consent End Date": "2025-06-26"
        },
        {
          "MPAN Consent UUID": 1000000000000010,
          "MPAN Import Consent": "True",
          "MPAN Export Consent": "True",
          "MPAN Consent Start Date": "2025-06-27",
          "MPAN Consent End Date": "2025-06-30"
        }
      ]
    },
    {
      "Asset ID": "0000101655",
      "MPAN UUID": 1000000000000003,
      "MPAN Export": "1123456756770",
      "MPAN Start Date": "2025-08-25",
      "MPAN End Date": "2026-06-26",
      "MPAN Consent": [
        {
          "MPAN Consent UUID": 1000000000000007,
          "MPAN Import Consent": "True",
          "MPAN Export Consent": "False",
          "MPAN Consent Start Date": "2025-08-25",
          "MPAN Consent End Date": "2025-12-31"
        },
        {
          "MPAN Consent UUID": 1000000000000023,
          "MPAN Import Consent": "True",
          "MPAN Export Consent": "True",
          "MPAN Consent Start Date": "2026-01-01",
          "MPAN Consent End Date": "2026-06-26"
        }
      ]
    }
  ]
}
```

Response - Success

```
{
  "Transaction ID": "CL-0000000300",
  "Transaction Status": "Load Completed",
  "Transaction Type": "MPAN Pair Consent",
  "Action Type": "Update"
}
```

Response - Failure

```
{
  "Transaction ID": "CL-0000000300",
  "Transaction Status": "Load Failed",
  "Transaction Type": "MPAN Pair Consent",
  "Action Type": "Update",
  "MPAN Pairs": [
    {
      "Asset ID": "0000101618",
      "MPAN UUID": 1000000000000001,
      "MPAN Import": "1123456756789",
      "MPAN Export": "1123456756790",
      "Error Message": "MPAN End Date is Missing",
      "MPAN Consent": [
        {
          "Asset ID": "0000101618",
          "MPAN Consent UUID": 1000000000000002,
          "MPAN Import Consent": "True",
          "MPAN Export Consent": "True",
          "Error Message": "MPAN Consent End Date is Missing"
        }
      ]
    }
  ]
}
```

Notification - Failure

```
{
  "Transaction ID": "CL-0000000798",
  "Transaction Status": "Process Error",
  "Transaction Type": "MPAN Pair Consent",
  "Action Type": "Update",
  "MPAN Pairs": [
    {
      "Asset ID": "0000101618",
      "MPAN UUID": 1000000000000001,
      "MPAN Import": "1123456756789",
      "MPAN Export": "1123456756790",
      "Error Message": "MPAN Pair: Missing Mandatory Field",
      "MPAN Consent": [
        {
          "Asset ID": "0000101618",
          "MPAN Consent UUID": 1000000000000002,
          "MPAN Import Consent": "True",
          "MPAN Export Consent": "False",
          "Error Message": "MPAN Consent End Date is Missing"
        }
      ]
    }
  ],
  {
    "Asset ID": "0000101618",

```

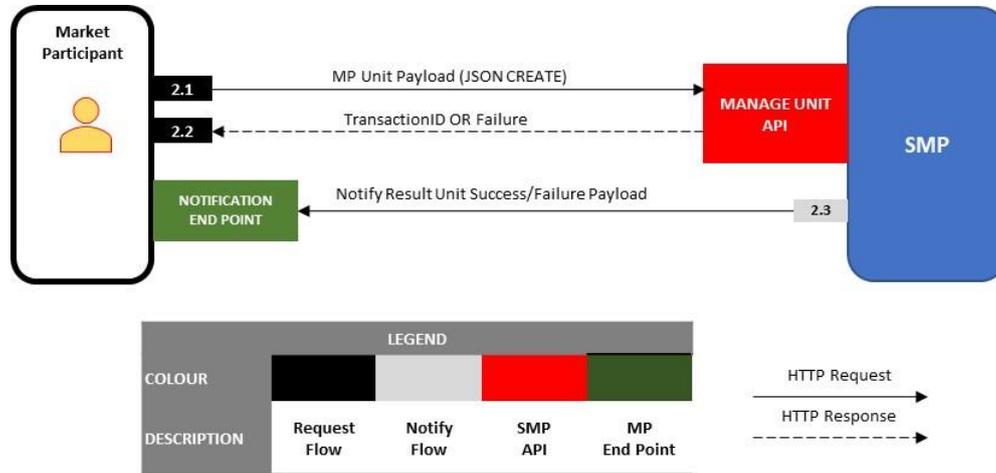
```
"MPAN UUID": 100000000000003,  
"MPAN Import": "1123456756789",  
"MPAN Export": "1123456756790",  
"Error Message": "null",  
"MPAN Consent": [  
  {  
    "Asset ID": "0000101618",  
    "MPAN Consent UUID": 100000000000004,  
    "MPAN Import Consent": "True",  
    "MPAN Export Consent": "False",  
    "Error Message": "null"  
  }  
]  
}
```

Notification - Success

```
{  
  "Transaction ID": "CL-0000000291",  
  "Transaction Status": "Process Completed",  
  "Transaction Type": "MPAN Pair Consent",  
  "Action Type": "Update"  
}
```

API: Create Unit

Overview



#	Dataflow	Transfer Type	Payload
2.1	Submit Unit Transaction	Request	JSON Unit Payload
2.2	Transaction Response	Response	One of: <ul style="list-style-type: none"> Failed Data Validation Transaction ID
2.3	Notification	Request	Unit Transaction JSON file providing: <ul style="list-style-type: none"> Successful records with SMP Unit ID Unsuccessful records with errors

Specification

Request

The request is a simple JSON payload made up of 2 sections:

Key	Value
<pre>{ <Notify Block>, "Unit": { <Create Unit>, "Assets": [<Asset ID>, <Asset ID>, ...] } }</pre>	<p>Information required for SMP API to notify of transaction completion – see “Model – Notify” for key-value pairs contained in <Notify Block></p> <p>Section containing information on the Unit to be loaded into SMP. It will consist of one instance <Create Unit>. See “Model – Create Unit” for key-value pairs.</p> <p>“Complementary to this will be an Array of the Asset IDs which refer to the Assets to be included in the unit. All Assets must have associated MPAN Pair records created – see Create MPAN Pairs section for more detail. This array does not need to be provided if the.</p>

```
}

```

If the Unit Category = Primary BMU, Secondary BMU or Additional Supplier BMU the user will need to include additional information relating to Balancing Mechanism registration. See the payload model and sample payload for details.

```
}
```

Response

A successful response is a JSON payload

```
{
  <Transaction Block>,    Information to notify of transaction information – see “Model –
                          Transaction” for key-value pairs contained in <Transaction Block>
}
```

Notify

After a Create Unit transaction has completed, the resulting notification will consist of a JSON payload

```
{
  <Transaction Block>    Information to notify of transaction information – see “Model –
                          Transaction” for key-value pairs contained in <Transaction Block>
}
```

Payload Models

Model – Notify

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
M	Notification Address	Text(255)	https://api.myco.com/SMPNotify/		
O	Notification Username	Text(255)	MyUsername		
O	Notification Password	Text(255)	MyPassword		
O	hasMore	Boolean	True	true, false	If selected as “true”, User will be able to submit another payload as part of the same transaction

The use of ‘hasMore’ is intended to give the user the option to submit multiple payloads for the same transaction, to be used if the number of records in one payload exceeds the limits for the amount that can be processed. Currently we advise including hasMore as ‘True’ if the number of assets in the payload for the Unit exceeds 50,000. For the final payload in the transaction ‘hasMore’ must be specified as ‘false’ in order for the transaction to be processed.

Model – Create Unit

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
M	Unit Name	Text(80)			Must be unique
M	Applicable Market	Picklist	Balancing Services	See Appendix Picklist – Unit Markets	

**See Appendix Picklist –
Unit Types**

M	Unit Type	Picklist(Multi-Select)	Demand Unit		
M	Category	Picklist	Primary BMU	See Appendix Picklist – Categories	
M	Effective From Date	Date	2025-10-28	YYYY-MM-DD	Must be today or later
M	Fuel Type	Picklist	Batteries	See Appendix Picklist – Fuel Types	
O	Generation Capacity	Number(15, 3)	297	XXXXXXXXXXXXXXXXXX.YY	Unit: Mandatory if “Unit Type” = “Generation Unit”.
O	Demand Capacity	Number(15, 3)	228	XXXXXXXXXXXXXXXXXX.YY	Unit: Mandatory if “Unit Type” = “Demand Unit”.
O	DNO	Picklist	SP Energy Networks	See Appendix Picklist - DNO	Mandatory if “Connected to DNO” = true
O	Connection Point Voltage	Picklist	400	See Appendix Picklist – Connection Point Voltage	
		Postcode	Text(8)	RG1 2HT	
O	Latitude	Number(2,15)	-3.584902	+/- XXX.XXXXXXXXXXXXXXXXXX	Accepts -90 to +90 Mandatory If Applicable Market = “Balancing Services”

O	Longitude		Number(3,15)	51.707079	+/- XX.XXXXXXXXXXXXXXXXXX	Accepts -180 to +180 Mandatory If Applicable Market = "Balancing Services"
O	Nearest Node		Text(6)	abha		Mandatory If Applicable Market = "Balancing Services"
O	GSP	Picklist (Multi- Select)	ABHA_1	See Appendix Picklist - GSP	Mandatory If Applicable Market = "Balancing Services"	Unit: KV Mandatory If Applicable Market = "Balancing Services"
O	Other GSP	Text(10)	New GSP		Mandatory if "GSP" = "Others"	Mandatory If Applicable Market = "Balancing Services"
O	GSP Group		Picklist	Eastern England	See Appendix Picklist – GSP Group	Mandatory If Applicable Market = "Balancing Services"
O	Primary Despatch Email Address		Email	hello@email.com		
O	Primary Despatch Phone Country		Picklist	United Kingdom	See Appendix - Picklist Country (Telephone)	
M	Primary Despatch Phone Number		Text(10)	7554456564		
O	Secondary Despatch Email Address		Email	hello@email.com		

O	Secondary Despatch Phone Country	Picklist	United Kingdom	See Appendix - Picklist Country (Telephone)
O	Secondary Despatch Phone Number	Text(10)	7676567657	
O	Despatch Fax Number Country	Picklist	United Kingdom	See Appendix - Picklist Country (Telephone)
O	Despatch Fax Number	Text(10)	7554456564	
O	Application Contact Name	Text(80)	John Hill	Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
O	Application Contact Email	Email	hello@email.com	Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
O	Application Contact Number	Phone	7554456564	Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
O	Application Contact Country	Text(40)	United Kingdom	Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
O	Application Contact Country Code	Text(10)	44	Mandatory if Category = Primary BMU,

					Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
O	Manned Location Telephone Number	Phone	7554456564		
O	Manned Location Telephone Country	Text(40)	United Kingdom		
O	Manned Location Telephone Country Code	Text(10)	44		
O	DNO Connection Point	Text(255)	ABC		
				Yes; No	
O	FPN Flag	Picklist (Yes; No)	Yes		Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
O	EIC Resource Code (Type W)	Text(16)	ABC		Not allowed if Category = Non-BMU

Model – Create Unit BM Registration Information

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
-----	-----	-----------	---------	----------------	-----------------------

O	Control Point ID	Formula(Text)	CP-000007	Control Point Must be in Submitted or Accepted Status. NESO BM Registration Team can supply Control Point IDs
O	Trading Agent ID	Formula(Text)	TA-000009	Trading Agent Must be in Submitted or Accepted Status. NESO BM Registration Team can supply Trading Agent IDs
O	Elexon Unit Settlement Id	Text (11)	No	

O BM Contract Type Picklist BEGA BELLA; BEGA; BCA; NA

O	Control Telephony Installed	Picklist	Yes	Yes; No	
O	Control Telephony Number	Text (40)	1234567890		Mandatory only if 'Control Telephony Installed' = 'Yes'
O	Control Telephony Country	Text (40)	United Kingdom		Mandatory only if 'Control Telephony Installed' = 'Yes'
O	Control Telephony Country Code	Text (10)	44		Mandatory only if 'Control Telephony Installed' = 'Yes'
O	System Telephony Installed	Picklist	Yes	Yes; No	
O	System Telephony Number	Text (40)	1234567890		Mandatory only if 'System Telephony Installed' = 'Yes'

O	System Telephony Country	Text (40)	United Kingdom		Mandatory only if 'System Telephony Installed' = 'Yes'
O	System Telephony Country Code	Text (10)	44		Mandatory only if 'System Telephony Installed' = 'Yes'
O	Connected via OFTO	Picklist	Yes	Yes; No	
O	OFTO Control Point Building Name	Text (100)	CP Name		Only If 'Connected via OFTO' = Yes
O	OFTO Control Point Street	Text (100)	CP Street		Only If 'Connected via OFTO' = Yes
O	OFTO Control Point City	Text (50)	CP City		Only If 'Connected via OFTO' = Yes
O	OFTO Control Point Post Code	Text (10)	ABC123		Only If 'Connected via OFTO' = Yes
O	OFTO Control Point County	Text (50)	CP County		Only If 'Connected via OFTO' = Yes
O	OFTO Control Point Country	Text (50)	United Kingdom		Only If 'Connected via OFTO' = Yes
O	OFTO Manager Name	Text (150)	Samual Smith		Only If 'Connected via OFTO' = Yes

O	OFTO Manager Email	Email (80)	XYZ@mail.com	Only If 'Connected via OFTO' =Yes
O	OFTO Manager Telephone	Text (40)	1234567890	Only If 'Connected via OFTO' =Yes
O	OFTO Manager Telephone Country	Text (40)	United Kingdom	Only If 'Connected via OFTO' =Yes
O	OFTO Manager Telephone Country Code	Text (10)	44	Only If 'Connected via OFTO' =Yes
O	OFTO Joint System Telephone Number	Text (40)	1234567890	Only If 'Connected via OFTO' =Yes
O	OFTO Joint System Telephone Country	Text (40)	United Kingdom	Only If 'Connected via OFTO' =Yes
O	OFTO Joint System Telephone Country Code	Text (10)	44	Only If 'Connected via OFTO' =Yes
O	eGAMA Party Name	Text (150)	Samuel Smith	
O	eGAMA Party Building Name	Text (100)	Building Name	
O	eGAMA Party Street	Text (100)	Street	
O	eGAMA Party City	Text (50)	City	
O	eGAMA Party Post Code	Text (10)	XYZ123	

O	eGAMA Party County	Text (50)	Breshy		
O	eGAMA Party Country	Text (50)	United Kingdom		
O	eGAMA Contact Name	Text (150)	Joseph Kay		
O	eGAMA Contact Telephone Number	Text (40)	1234567890		
O	eGAMA Contact Telephone Country	Text (40)	United Kingdom		
O	eGAMA Contact Telephone Country Code	Text (10)	44		
O	eGAMA Contact Email	Email (80)	mail@mail.com		
O	Is SAA Metering capacity being used?	Picklist	Yes	(Yes; No)	Only if Unit category is Secondary BMU and Additional Supplier BMU
O	SAA Max Deliverable Demand Capacity	Number (15, 3)	20		Only if 'Is SAA Metering capacity being used'=Yes
O	SAA Max Deliverable Generation Capacity	Number (15, 3)	20		Only if 'Is SAA Metering capacity being used'=Yes
O	SAA Nameplate Capacity	Number (15, 3)	40		Only if 'Is SAA Metering

Model – Unit

This Model includes all fields in Model – Create Unit plus the following:

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload.

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
O	Account Name	Text(255)	My Company		
O	Error Message	Long Text		O	Error Message

Model – Transaction

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
O	Transaction ID	Text(10)	CL-0000000143		Will be null if payload fails basic validation
M	Transaction Status	Text(10)	Process Completed	See Transaction State Diagram	
M	Transaction Type	Text(10)	Asset	“Asset”, “Unit”	
M	Action Type	Text(10)	Create	“Create”	

Payload Samples

Request

Example 1: Non-Balancing Mechanism Unit

```
{
  "Notification Address":"https://api.mycompany.com/SMPNotification",
  "Notification Username":"MyUsername",
  "Notification Password":"MyPassword",
  "Action Type":"Create",
  "Unit":
  {
    "Unit Name":"MyUnit-01",
    "Applicable Market":"Balancing Services",
    "Unit Type":"Generation Unit",
    "Category":"Non-BMU",
    "Effective From Date":"2023-03-01",
    "Fuel Type":"Batteries",
    "Generation Capacity":297,
    "Connection Type":"Flexible",
    "Connected to DNO":true,
    "DNO":"Electricity North West",
    "Connection Point Voltage":"400",
    "Postcode":"CV34 6DA",
    "Longitude":"-3.584902",
    "Latitude":"51.707079",
    "Nearest Node":"abha",
    "GSP":"ABHA_1",
    "GSP Group":"Eastern England",
    "Primary Despatch Phone Number":"7554456564",
    "Primary Despatch Phone Number Country":"United Kingdom",
    "Secondary Despatch Phone Number":"7676567657",
    "Secondary Despatch Phone Number Country":"United Kingdom",
    "Despatch Fax Number":"4645654643",
    "Despatch Fax Number Country":"United Kingdom",
    "Assets":[7294652834,"8273624319","6244855231"]
  }
}
```

Example 2: -Balancing Mechanism Unit

```
{
  "Notification Address": "https://api-dev-int-uk-01.nationalgrid.com/smp-mock-testing/api/v1/sample",
  "Notification Username": "smpdummyuser",
  "Notification Password": "smpdummyuser",
  "Action Type": "Create",
  "Unit": {
    "Assets": ["0000127343"],
    "Unit Name": "SMPAPI_Unit_Bal_BMU04",
    "Applicable Market": "Balancing Services",
    "Unit Type": "Generation Unit;Demand Unit",
    "Effective From Date": "2025-08-29",
    "Category": "Primary BMU",
    "Fuel Type": "Other",
    "Other Fuel Type": "AVV",
    "FPN Flag": "No",
    "Generation Capacity": 20.0,
    "Demand Capacity": 20.0,
    "Connection Type": "Flexible",
    "Connected to DNO": true,
    "DNO": "ESB Networks",
    "Connection Point Voltage": "400",
    "Other Connection Point Voltage": 50.0,
    "Postcode": "RG1 7QE",
    "Longitude": "-3.584902",
    "Latitude": "51.707079",
    "Nearest Node": "abha",
    "GSP": "ABHA_1;Others",
    "Other GSP": "ABD_1",
    "GSP Group": "Eastern England",
    "Primary Despatch Email Address": "Contact@xyztestenergy.co.uk",
    "Primary Despatch Phone Country": "United Kingdom",
    "Primary Despatch Phone Number": "7554456564",
    "Secondary Despatch Email Address": "Contact2@xyztestenergy.co.uk",
    "Secondary Despatch Phone Country": "United Kingdom",
    "Secondary Despatch Phone Number": "7676567657",
    "Despatch Fax Number Country": "United Kingdom",
    "Despatch Fax Number": "4645654643",
    "Supplier of Electricity": "Yes",
    "Application Contact Name": "John Smith",
  }
}
```

```
"Application Contact Email": "John.smith@nationalgrid.com",
"Application Contact Number": "1212121212",
"Application Contact Country": "United Kingdom",
"Application Contact Country Code": "44",
"Manned Location Telephone Number": "1234567890",
"Manned Location Telephone Country": "United Kingdom",
"Manned Location Telephone Country Code": "44",
"DNO Connection Point": "ABC",
"EIC Resource Code (Type W)": "ABC",
"BM Registration": {
  "Control Point ID": "",
  "Trading Agent ID": "",
  "BM Contract Type": "BELLA",

  "Elexon Unit Settlement Id": "No",
  "Connected via OFTO": "Yes",
  "OFTO Control Point Building Name": "CP Name",
  "OFTO Control Point Street": "CP Street",
  "OFTO Control Point City": "CP City",
  "OFTO Control Point Post Code": "ABC123",
  "OFTO Control Point County": "CP County",
  "OFTO Control Point Country": "United Kingdom",
  "OFTO Manager Name": "Smual Smith",
  "OFTO Manager Email": "XYZ@mail.com",
  "OFTO Manager Telephone": "1234567890",
  "OFTO Manager Telephone Country": "United Kingdom",
  "OFTO Manager Telephone Country Code": "44",
  "OFTO Joint System Telephone Number": "1234567890",
  "OFTO Joint System Telephone Country": "United Kingdom",
  "OFTO Joint System Telephone Country Code": "44",
  "eGAMA Party Name": "Samuel Smith",
  "eGAMA Party Building Name": "Building Name",
  "eGAMA Party Street": "Street",
  "eGAMA Party City": "City",
  "eGAMA Party Post Code": "XYZ123",
  "eGAMA Party County": "Breshy",
  "eGAMA Party Country": "United Kingdom",
  "eGAMA Contact Name": "Joseph Kay",
  "eGAMA Contact Telephone Number": "1234567890",
  "eGAMA Contact Telephone Country": "United Kingdom",
  "eGAMA Contact Telephone Country Code": "44",
  "eGAMA Contact Email": "mail@mail.com"
```

```
}  
}  
}
```

Response - Success

```
{  
  "Transaction ID":" CL-0000000143",  
  "Transaction Status":"Load Completed",  
  "Transaction Type":"Unit",  
  "Action Type":"Create"  
}
```

Response - Failure

```
{  
  "Transaction ID":null,  
  "Transaction Status":"Load Failed",  
  "Transaction Type":"Unit",  
  "Action Type":"Create",  
  "Unit":  
  {  
    "Unit Name":"MyUnit-01",  
    "Error Message":"Postcode: Missing Mandatory Field"  
  }  
}
```

Notification - Failure

```
{  
{
```

```
"Transaction ID": "CL-0000001183",
"Transaction Status": "Process Error",
"Transaction Type": "Unit",
"Action Type": "Create",
"Unit": {
  "Unit Name": "My Unit 01",
  "Error Message": null
},
"BM Registration": {
  "Error Message": "Please enter a valid Trading Agent ID;Please enter a valid Control Point ID"
}
}
}
```

Notification - Success

```
{
"Transaction ID":" CL-0000000143",
"Transaction Status":"Process Completed",
"Transaction Type":"Unit",
"Action Type":"Create",
}
```

API: Select Unit

Overview

#	Dataflow	Transfer Type	Payload
---	----------	---------------	---------

3.1	Submit Unit Request	Request	
3.2	Transaction Response	Response	<ul style="list-style-type: none"> Transaction ID
3.3	Notification	Request	Asset Transaction JSON file providing: <ul style="list-style-type: none"> JSON file with Unit details

Payload Samples

Notification - Success

```
{
  "Transaction Type": "Unit"
  "Transaction Status": "Success"
  "Action Type": "Select",
  "Units":
[
  {
    "Unit Versions": [
      {
        "Unit Key": 200000000000333,
        "Unit Name": "My unit 1",
        "Account Name": "ABC LTD",
        "Company ID": "13390812",
        "Company Unique Identifier": 10007733,
        "Unit ID": "22222",
        "Applicable Market": "Balancing Services",
        "Unit Type": "Demand Unit",
        "Unit Status": "Accepted",
        "Effective From Date": null,
        "Effective To Date": null,
        "Fuel Type": "Biomass",
        "Other Fuel Type": null,
        "Generation Capacity": 0,
        "Demand Capacity": 123456719012345.33,
        "Connection Type": "Firm",
```

```
"Connected to DNO": false,
"DNO": null,
"Connection Point Voltage": "275",
"Other Connection Point Voltage": null,
"Postcode": "11111111",
"Longitude": "-3.584902",
"Latitude": "51.707079",
"Nearest Node": "ABC",
"GSP": "ABHA_1",
"Other GSP": null,
"GSP Group": "Eastern England",
"Primary Despatch Email Address": null,
"Secondary Despatch Email Address": null,
"Primary Despatch Phone Number": "1111111111",
"Primary Despatch Phone Country": "United Kingdom",
"Secondary Despatch Phone Number": "1111111111",
"Secondary Despatch Phone Country": "United Kingdom",
"Despatch Fax Number Country": null,
"Despatch Fax Number": "United Kingdom",
"Category": "Primary BMU",
"Supplier of Electricity": null,
"Application Contact Name": "John Smith",
"Application Contact Email": "John.smith@nationalgrid.com",
"Application Contact Number": "1212121212",
"Application Contact Country": "United Kingdom",
"Application Contact Country Code": "44",
"Manned Location Telephone Number": "1234567890",
"Manned Location Telephone Country": "United Kingdom",
"Manned Location Telephone Country Code": "44",
"DNO Connection Point": "ABC",
"EIC Resource Code (Type W)": "ABC",

"FPN Flag": "No",
"Assets": [
  "0000106753"
],
"Unit Services": [
  {
    "Active Network Management": "Yes",
    "Allocated Volume": 122,
    "Cease Time": 11,
    "Cease Time (s)": 1,
    "Time to Full Delivery (in mins)": 1,
```

```
    "Time to Full Delivery (s)": 10,
    "Maximum Utilisation Period": 11,
    "Minimum Non Zero Time": 11,
    "Operational Metering Available": "Yes",
    "Ramp Down Rate": null,
    "Ramp Up Rate": 0,
    "Recovery Period": 11,
    "Response Time": 1,
    "Response Time (s)": 10,
    "Minimum Activation Period": 1,
    "Service End Date": "2032-12-21 12:00:00",
    "Service Start Date": "2022-12-21 07:00:00",
    "Service Status": "Approved",
    "Unit of Measurement": "MW",
    "Telephony Available from": "00:30",
    "Telephony Available to": "00:30",
    "Service Provision": "Generator",
    "Service Name": "Negative Balancing Reserve",
    "Service Code": "NBR",
    "First Authorised Signatory": "Smith Jones",
    "Second Authorised Signatory": null,
    "Third Authorised Signatory": null
  }
]
},
{
  "Unit Key": 200000000000444,
  "Unit Name": "Secondary Unit 12",
  "Name": "JAQUARD LTD",
  "Company ID": "11012159",
  "Company Unique Identifier": 10007725,
  "Unit ID": "AG-02C",
  "Applicable Market": "Balancing Services",
  "Unit Type": "Generation Unit;Demand Unit",
  "Unit Status": "Accepted",
  "Effective From Date": "2024-03-30",
  "Effective To Date": null,
  "Fuel Type": "Biomass",
  "Other Fuel Type": null,
  "Generation Capacity": 80,
  "Demand Capacity": 80,
  "Connection Type": "Firm",
  "Connected to DNO": false,
```

```
"DNO": null,
"Connection Point Voltage": null,
"Other Connection Point Voltage": null,
"Postcode": null,
"Longitude": "-3.5904902",
"Latitude": "4.5904902",
"Nearest Node": null,
"GSP": "ABHA_1",
"Other GSP": null,
"GSP Group": "London",
"Primary Despatch Email Address": null,
"Secondary Despatch Email Address": null,
"Primary Despatch Phone Country": "United Kingdom",
"Primary Despatch Phone Number": "9876543210",
"Secondary Despatch Phone Country": "United Kingdom",
"Secondary Despatch Phone Number": "9876543210",
"Despatch Fax Number Country": null,
"Despatch Fax Number": null,
"Category": "Secondary BMU",
"Supplier of Electricity": null,
"Application Contact Name": "John Smith",
"Application Contact Email": "John.smith@nationalgrid.com",
"Application Contact Number": "1212121212",
"Application Contact Country": "United Kingdom",
"Application Contact Country Code": "44",
"Manned Location Telephone Number": "1234567890",
"Manned Location Telephone Country": "United Kingdom",
"Manned Location Telephone Country Code": "44",
"DNO Connection Point": "ABC",
"EIC Resource Code (Type W)": "ABC",

"FPN Flag": "No",
"Assets": [
  "0000106758"
],
"Unit Services": [
  {
    "Active Network Management": "Yes",
    "Allocated Volume": 122,
    "Cease Time": 11,
    "Cease Time (s)": 1,
    "Time to Full Delivery (in mins)": 1,
    "Time to Full Delivery (s)": 10,
  }
]
```

```
    "Maximum Utilisation Period": 11,
    "Minimum Non Zero Time": 11,
    "Operational Metering Available": "Yes",
    "Ramp Down Rate": null,
    "Ramp Up Rate": 0,
    "Recovery Period": 11,
    "Response Time": 1,
    "Response Time (s)": 10,
    "Minimum Activation Period": 1,
    "Service End Date": "2032-12-21 12:00:00",
    "Service Start Date": "2022-12-21 07:00:00",
    "Service Status": "Approved",
    "Unit of Measurement": "MW",
    "Telephony Available from": null,
    "Telephony Available to": null,
    "Service Provision": null,
    "Service Name": "Dynamic Regulation HF",
    "Service Code": "DRH",
    "First Authorised Signatory": null,
    "Second Authorised Signatory": null,
    "Third Authorised Signatory": "Steve J"
  }
]
},
"BM Registrations": [
  {
    "Unit Key": 2000000000000333,
    "Control Point ID": "demo123",
    "Trading Agent ID": "demo123",
    "BM Contract Type": "BELLA",
    "Elexon Unit Settlement Id": "No",
    "Control Telephony Installed": "Yes",
    "Control Telephony Number": "1234567890",
    "Control Telephony Country": "United Kingdom",
    "Control Telephony Country Code": "44",
    "System Telephony Installed": "Yes",
    "System Telephony Number": "1234567890",
    "System Telephony Country": "United Kingdom",
    "System Telephony Country Code": "44",
    "Connected via OFTO": "Yes",
    "OFTO Control Point Building Name": "CP Name",
    "OFTO Control Point Street": "CP Street",
```

```
"OFTO Control Point City": "CP City",
"OFTO Control Point Post Code": "ABC123",
"OFTO Control Point County": "CP County",
"OFTO Control Point Country": "United Kingdom",
"OFTO Manager Name": "Smual Smith",
"OFTO Manager Email": "XYZ@mail.com",
"OFTO Manager Telephone": "1234567890",
"OFTO Manager Telephone Country": "United Kingdom",
"OFTO Manager Telephone Country Code": "44",
"OFTO Joint System Telephone Number": "1234567890",
"OFTO Joint System Telephone Country": "United Kingdom",
"OFTO Joint System Telephone Country Code": "44",
"eGAMA Party Name": "Samuel Smith",
"eGAMA Party Building Name": "Building Name",
"eGAMA Party Street": "Street",
"eGAMA Party City": "City",
"eGAMA Party Post Code": "XYZ123",
"eGAMA Party County": "Breshy",
"eGAMA Party Country": "United Kingdom",
"eGAMA Contact Name": "Joseph Kay",
"eGAMA Contact Telephone Number": "1234567890",
"eGAMA Contact Telephone Country": "United Kingdom",
"eGAMA Contact Telephone Country Code": "44",
"eGAMA Contact Email": "mail@mail.com",
"Is SAA Metering capacity being used?": "Yes",
"SAA Max Deliverable Demand Capacity": 20,
"SAA Max Deliverable Generation Capacity": 20,
"SAA Nameplate Capacity": 40
},
{
  "Unit Key": 200000000000333,
  "Control Point ID": "demo123",
  "Trading Agent ID": "demo123",
  "BM Contract Type": "BELLA",
  "Elexon Unit Settlement Id": "No",
  "Control Telephony Installed": "Yes",
  "Control Telephony Number": "1234567890",
  "Control Telephony Country": "United Kingdom",
  "Control Telephony Country Code": "44",
  "System Telephony Installed": "Yes",
  "System Telephony Number": "1234567890",
  "System Telephony Country": "United Kingdom",
  "System Telephony Country Code": "44",
```

```
"Connected via OFTO": "Yes",
"OFTO Control Point Building Name": "CP Name",
"OFTO Control Point Street": "CP Street",
"OFTO Control Point City": "CP City",
"OFTO Control Point Post Code": "ABC123",
"OFTO Control Point County": "CP County",
"OFTO Control Point Country": "United Kingdom",
"OFTO Manager Name": "Smual Smith",
"OFTO Manager Email": "XYZ@mail.com",
"OFTO Manager Telephone": "1234567890",
"OFTO Manager Telephone Country": "United Kingdom",
"OFTO Manager Telephone Country Code": "44",
"OFTO Joint System Telephone Number": "1234567890",
"OFTO Joint System Telephone Country": "United Kingdom",
"OFTO Joint System Telephone Country Code": "44",
"eGAMA Party Name": "Samuel Smith",
"eGAMA Party Building Name": "Building Name",
"eGAMA Party Street": "Street",
"eGAMA Party City": "City",
"eGAMA Party Post Code": "XYZ123",
"eGAMA Party County": "Breshy",
"eGAMA Party Country": "United Kingdom",
"eGAMA Contact Name": "Joseph Kay",
"eGAMA Contact Telephone Number": "1234567890",
"eGAMA Contact Telephone Country": "United Kingdom",
"eGAMA Contact Telephone Country Code": "44",
"eGAMA Contact Email": "mail@mail.com",
"Is SAA Metering capacity being used?": "Yes",
"SAA Max Deliverable Demand Capacity": 20,
"SAA Max Deliverable Generation Capacity": 20,
"SAA Nameplate Capacity": 40
```

```
}
```

```
]
```

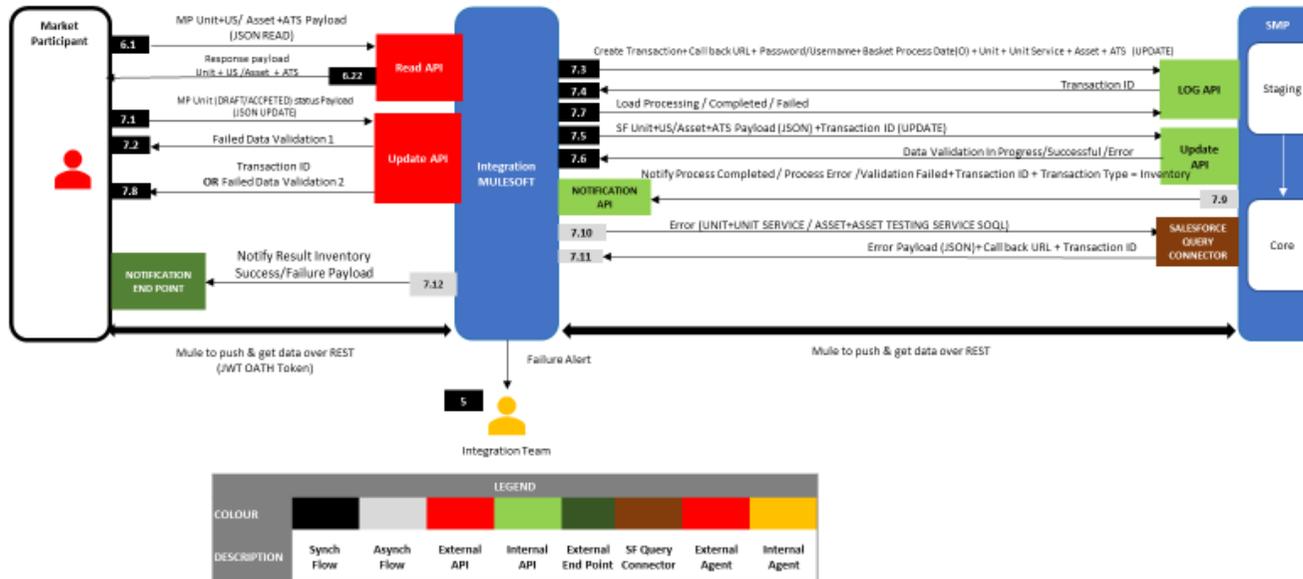
```
}
```

```
]
```

```
}
```

API: Update Inventory

Overview



#	Dataflow	Transfer Type	Payload
6.1	Submit Select Unit/Asset Request	Request	
6.22	Response Payload	Response	Asset Transaction JSON file providing: JSON file with Unit/Asset details
7.1	Submit Unit Transaction	Request	JSON Unit Payload
7.3	Transaction Response	Response	One of: <ul style="list-style-type: none"> Failed Data Validation Transaction ID
7.12	Notification	Request	Unit Transaction JSON file providing: <ul style="list-style-type: none"> Successful records with SMP Unit ID Unsuccessful records with errors

Specification

Request

The request is a simple JSON payload made up of 2 sections:

Key	Value
<pre>{ <Notify Block>, "Unit": { <Update Unit>, "Assets": [<Asset ID>,</pre>	<p>Information required for SMP API to notify of transaction completion – see “Model – Notify” for key-value pairs contained in <Notify Block></p> <p>Section containing information on the Unit (and if Unit is in Accepted Status, its associated Unit Services)to be updated in SMP.It will consist of one instance <Update Unit>. See “Model – Update Unit” for key-value pairs. The ‘Unit Key’ value must refer to the Unit that the user wishes to update. This value can be obtained using the ‘Select Unit’ API.</p>

```

    <Asset ID>,
    ...
  ],
  "Unit Services":
  { <Update Unit
  Services>
  },
  "Assets":
  { <Update Assets>},
  "Asset Testing
  Services":
  { <Update Asset
  Testing Services>
  }
}
}

```

Complementary to this will be an Array of the Asset IDs which refer to the Assets to be included in the unit. All Asset IDs the user wants to be aligned to the unit must be included i.e. including assets that are currently aligned. These values can be obtained using the 'Select Asset' API. All Assets must have associated MPAN Pair records created – see Create MPAN Pairs section for more detail. If the Unit Category = Primary BMU, Secondary BMU or Additional Supplier BMU the user will need to include additional information relating to Balancing Mechanism registration. See the payload model and sample payload for details.. If the User wishes to update Asset(s) aligned to the Accepted Unit all details must be included for that Asset and associated Asset Testing Services. These values can be obtained using the 'Select Asset' API. If Unit is in "Accepted" status and the user wishes to update an Asset aligned to that unit, details for other Units associated to that Asset must be included in the payload.

If the user is sending a payload consisting of Units where the Status is equal to "Accepted", the user must include all mandatory fields in the payload. They will only be able to edit the array of Assets aligned to the unit, and the values for the tags detailed below:

Record	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
Asset	Generation Capacity	Number(15,3)	50	XXXXXXXXXXXXXXXXXX.XX	Unit: MW Mandatory if "Asset Type" = "Generation Unit"
Asset	Demand Capacity	Number(15,3)	50	XXXXXXXXXXXXXXXXXX.XX	Unit: MW Mandatory if "Asset Type" = "Demand Unit"
Unit Service	Allocated Volume	Number (16,2)	50	XXXXXXXXXXXXXXXXXX.XX	
Asset Testing Service	Date Approved by ITE	Date	23/06/2022	DD/MM/YYYY	

Asset Testing Service	Tested Capacity	Number(16,2)	50	XXXXXXXXXXXXXXXXXX.XX
-----------------------	-----------------	--------------	----	-----------------------

If no change is detected in the payload compared to the pre-existing properties of the above fields, the transaction will be rejected with a status of 'Validation Failed'. If the changes made require manual approval by the NESO Registrations team and these are rejected, the transaction will also be rejected with a status of 'Validation Failed'.

Response

A successful response is a JSON payload made up of 2 sections

```
{
  <Transaction Block>,      Information to notify of transaction information – see “Model –
                             Transaction” for key-value pairs contained in <Transaction Block>

  "Unit":                  Optional Section containing information on the Unit that was to be
  {                          updated into SMP.It will consist of one instance <Unit>. See “Model –
    <Unit>,                  Unit” for key-value pairs.
    "Assets":                Complementary to this will be an Array of the Asset IDs which refer to
    [                          the Assets included in the unit.
      <Asset ID>,
      <Asset ID>,
      ...
    ]
  }
}
```

Notify

After an Update Inventory transaction has completed, the resulting notification will consist of a JSON payload made up of 1 section

Information to notify of transaction information – see “Model – Transaction” for key-value pairs contained in <Transaction Block>

Payload Models

Model – Notify

NDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
M	Notification Address	Text(255)	https://api.myco.com/SMPNotify/		
O	Notification Username	Text(255)	MyUsername		
O	Notification Password	Text(255)	MyPassword		
M	Action Type	Text (10)	“Update”	“Update”	
M	Basket Effective From Date	Date(YYYY-MM-DD)	“2030-07-01”	YYYY-MM-DD	Date value given must be ≥ Today + 10. This will be the date updates to records in the payload will take effect from.
O	hasMore	Boolean	True	true, false	If selected as “true”, User will be able to submit another payload as part of the same transaction

The use of 'hasMore' is intended to give the user the option to submit multiple payloads for the same transaction, to be used if the number of records in one payload exceeds the limits for the amount that can be processed. Currently we advise including hasMore as 'True' if the number of assets in the payload for 1 Unit exceeds 50,000, or if there are more than 10 units, or if the number of assets across all units exceeds 50,000.

Model – Update Unit

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
M	Unit Key	Number(15,0)	230000000000110		Must be associated with a Unit owned by the User's account
M	Unit Status	Picklist	Draft	Draft, Submitted, Accepted	If 'Submitted' is selected the Unit will be locked for editing prior to Approval by the NESO Registration team. Units where status = "Accepted" cannot be included in payloads with Units with other statuses
M	Assets	Array	0000106116	Comma Separated Values	Must be associated with the User's account
M	Applicable Market	Picklist	Balancing Services	See Appendix Picklist – Asset Markets	
M	Unit Name	Text(80)	Test_Unit111	Obtainable through Select Unit API	
O	Company Unique Identifier	Number	10007818	Obtainable through Select Unit API	
O	Unit ID	Text	ABCD-123	Obtainable through Select Unit API	
O	Account Name	Text	Test Limited	Obtainable through Select Unit API	
O	Company ID	Text(30)	08211691	Obtainable through Select Unit API	

M	Unit Type	Picklist(Multi-Select)	Demand Unit	See Appendix Picklist – Unit Types	
M	Category	Picklist	Primary BMU	See Appendix Picklist – Categories	
M	Effective From Date	Date	2025-10-28	YYYY-MM-DD	Must be today or later
O	Effective To Date	Date	2025-10-28	YYYY-MM-DD	Must be today or later
M	Fuel Type	Picklist	Batteries	See Appendix Picklist – Fuel Types	
O	Other Fuel Type	Text(255)	My Fuel Type	Mandatory if Fuel Type = Other	
O	Generation Capacity	Number(15, 3)	297	XXXXXXXXXXXXXXXXXX.YY	Unit: Mandatory if “Unit Type” = “Generation Unit”.
O	Demand Capacity	Number(15, 3)	228	XXXXXXXXXXXXXXXXXX.YY	Unit: Mandatory if “Unit Type” = “Demand Unit”.
M	Connection Type	Picklist	Flexible	See Appendix Picklist – Connection Type	
M	Connected to DNO	Picklist	true	See Appendix Picklist – Boolean	
O	DNO	Picklist	SP Energy Networks	See Appendix Picklist - DNO	Mandatory if “Connected to DNO” = true
O	Supplier of Electricity	Picklist	Yes, No	See Appendix Picklist – Are you a Supplier of Electricity	
O	Connection Point Voltage	Picklist	400	See Appendix Picklist – Connection Point Voltage	Unit: KV Mandatory If Applicable Market = “Balancing Services”
O	Other Connection Point Voltage	Number(16, 2)	100	XXXXXXXXXXXXXXXXXX.YY	Unit: KV Mandatory if “Connection Point Voltage” = “Other”

O	Postcode	Text(8)	RG1 2HT		Mandatory If Applicable Market = "Balancing Services" "
O	Latitude	Number(2,15)	-3.584902	+/- XXX.XXXXXXXXXXXXXXXXXX	Accepts -90 to +90 Mandatory If Applicable Market = "Balancing Services" "
O	Longitude	Number(3,15)	51.707079	+/- XX.XXXXXXXXXXXXXXXXXX	Accepts -180 to +180 Mandatory If Applicable Market = "Balancing Services"
O	Nearest Node	Text(6)	abha		Mandatory If Applicable Market = "Balancing Services"
O	GSP	Picklist (Multi-Select)	ABHA_1	See Appendix Picklist - GSP	Mandatory If Applicable Market = "Balancing Services"
O	Other GSP	Text(10)	New GSP		Mandatory if "GSP" = "Others"
O	GSP Group	Picklist	Eastern England	See Appendix Picklist – GSP Group	Mandatory If Applicable Market = "Balancing Services"
O	Primary Despatch Email Address	Email	hello@email.com		
M	Primary Despatch Phone Country	Picklist	United Kingdom	See Appendix - Picklist Country (Telephone)	
M	Primary Despatch Phone Number	Text(10)	7554456564		
O	Secondary Despatch Email Address	Email	hello@email.com		
M	Secondary Despatch Phone Country	Picklist	United Kingdom	See Appendix - Picklist Country (Telephone)	
M	Secondary Despatch Phone Number	Text(10)	7676567657		
O	Despatch Fax Number Country	Picklist	United Kingdom	See Appendix - Picklist Country (Telephone)	
O	Despatch Fax Number	Text(10)	7554456564		

<input type="radio"/>	Application Contact Name	Text(80)	John Hill	Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
<input type="radio"/>	Application Contact Email	Email	hello@email.com	Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
<input type="radio"/>	Application Contact Number	Phone	7554456564	Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
<input type="radio"/>	Application Contact Country	Text(40)	United Kingdom	Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
<input type="radio"/>	Application Contact Country Code	Text(10)	44	Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
<input type="radio"/>	Manned Location Telephone Number	Phone	7554456564	
<input type="radio"/>	Manned Location Telephone Country	Text(40)	United Kingdom	
<input type="radio"/>	Manned Location Telephone Country Code	Text(10)	44	
<input type="radio"/>	DNO Connection Point	Text(255)	ABC	
<input type="radio"/>	FPN Flag	Picklist (Yes; No)	Yes	Mandatory if Category = Primary BMU, Secondary BMU, Additional Supplier BMU. Not allowed if Category = Non-BMU
<input type="radio"/>	EIC Resource Code (Type W)	Text(16)	ABC	Not allowed if Category = Non-BMU

Model – Update Unit BM Registration Information

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
O	Control Point ID	Text	CP-000007		Control Point Must be in Submitted or Accepted Status. NESO BM Registration Team can supply Control Point IDs
O	Trading Agent ID	Text	TA-000009		Trading Agent Must be in Submitted or Accepted Status. NESO BM Registration Team can supply Trading Agent IDs
O	Elexon Unit Settlement Id	Text (11)	No		

O BM Contract Type Picklist BEGA BELLA; BEGA; BCA; NA

O	Control Telephony Installed	Picklist	Yes	Yes; No	
O	Control Telephony Number	Text (40)	1234567890		Mandatory only if 'Control Telephony Installed' ='Yes'
O	Control Telephony Country	Text (40)	United Kingdom		Mandatory only if 'Control Telephony Installed' ='Yes'
O	Control Telephony Country Code	Text (10)	44		Mandatory only if 'Control Telephony Installed' ='Yes'
O	System Telephony Installed	Picklist	Yes	Yes; No	
O	System Telephony Number	Text (40)	1234567890		Mandatory only if 'System Telephony Installed' ='Yes'
O	System Telephony Country	Text (40)	United Kingdom		Mandatory only if 'System Telephony Installed' ='Yes'
O	System Telephony Country Code	Text (10)	44		Mandatory only if 'System Telephony Installed' ='Yes'

O	Connected via OFTO	Picklist	Yes	Yes; No
O	OFTO Control Point Building Name	Text (100)	CP Name	Only If 'Connected via OFTO' =Yes
O	OFTO Control Point Street	Text (100)	CP Street	Only If 'Connected via OFTO' =Yes
O	OFTO Control Point City	Text (50)	CP City	Only If 'Connected via OFTO' =Yes
O	OFTO Control Point Post Code	Text (10)	ABC123	Only If 'Connected via OFTO' =Yes
O	OFTO Control Point County	Text (50)	CP County	Only If 'Connected via OFTO' =Yes
O	OFTO Control Point Country	Text (50)	United Kingdom	Only If 'Connected via OFTO' =Yes
O	OFTO Manager Name	Text (150)	Samual Smith	Only If 'Connected via OFTO' =Yes
O	OFTO Manager Email	Email (80)	XYZ@mail.com	Only If 'Connected via OFTO' =Yes
O	OFTO Manager Telephone	Text (40)	1234567890	Only If 'Connected via OFTO' =Yes
O	OFTO Manager Telephone Country	Text (40)	United Kingdom	Only If 'Connected via OFTO' =Yes
O	OFTO Manager Telephone Country Code	Text (10)	44	Only If 'Connected via OFTO' =Yes
O	OFTO Joint System Telephone Number	Text (40)	1234567890	Only If 'Connected via OFTO' =Yes
O	OFTO Joint System Telephone Country	Text (40)	United Kingdom	Only If 'Connected via OFTO' =Yes

O	OFTO Joint System Telephone Country Code	Text (10)	44		Only if 'Connected via OFTO' =Yes
O	eGAMA Party Name	Text (150)	Samuel Smith		
O	eGAMA Party Building Name	Text (100)	Building Name		
O	eGAMA Party Street	Text (100)	Street		
O	eGAMA Party City	Text (50)	City		
O	eGAMA Party Post Code	Text (10)	XYZ123		
O	eGAMA Party County	Text (50)	Breshy		
O	eGAMA Party Country	Text (50)	United Kingdom		
O	eGAMA Contact Name	Text (150)	Joseph Kay		
O	eGAMA Contact Telephone Number	Text (40)	1234567890		
O	eGAMA Contact Telephone Country	Text (40)	United Kingdom		
O	eGAMA Contact Telephone Country Code	Text (10)	44		
O	eGAMA Contact Email	Email (80)	mail@mail.com		
O	Is SAA Metering capacity being used?	Picklist	Yes	(Yes; No)	Only if Unit category is

					Secondary BMU and Additional Supplier BMU
O	SAA Max Deliverable Demand Capacity	Number (15, 3)	20		Only if 'Is SAA Metering capacity being used'=Yes
O	SAA Max Deliverable Generation Capacity	Number (15, 3)	20		Only if 'Is SAA Metering capacity being used'=Yes
O	SAA Nameplate Capacity	Number (15, 3)	40		Only if 'Is SAA Metering capacity being used'=Yes

Model – Unit Service

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
O	Active Network Management	Picklist	Yes	Yes; No	
M	Allocated Volume	Number (16, 2)	12	XXXXXXXXXXXXXXXXXX	Must be ≥ the value of the Service Minimum Threshold of the relevant Service
O	Cease Time	Number (2, 0)	20	xx	
O	Time to Full Delivery (in mins)	Number (17, 1)	15	XXXXXXXXXXXXXXXXXX.X	
O	Maximum Utilisation Period	Number (2, 0)	5	XX	

O	Minimum Non Zero Time	Number (3, 0)	5	XXX
O	Operational Metering Available	Picklist	Yes	Yes; No
O	Ramp Down Rate	Number (16, 2)	20	XXXXXXXXXXXXXXXXXX.XX
O	Ramp Up Rate	Number (16, 2)	20	XXXXXXXXXXXXXXXXXX.XX
O	Recovery Period	Number (3, 0)	12	XXX
O	Response Time	Number (2, 0)	12	XX
O	Service End Date	Datetime	2032-02-01T00:00:00Z	YYYY-MM-DDTHH:MM:SSZ
O	Service Start Date	Datetime	2032-02-01T00:00:00Z	YYYY-MM-DDTHH:MM:SSZ
O	Service Status	Picklist	Approved	(Draft; Approved; Rejected; Withdrawn; Suspended; Incomplete; Submitted; Signature in progress; Acknowledged)
O	Unit of Measurement	Picklist	MW	(MW; MVAR)
O	Telephony Available from	Picklist	00:30;	See Appendix – Telephony Available From/To
O	Telephony Available to	Picklist	03:30;	See Appendix – Telephony Available From/To
O	Service Provision	Picklist	Generator	(Generator; Supplier; Through Zero)
O	Service Name	Picklist	Dynamic Containment HF	Values available from the Select Service Catalog API response - 'Ancillary Service Name' payload tag
O	Service Code	Text (3)	DCH	Values available from the Select Service Catalog API response - 'Service Code' payload tag
O	First Authorised Signatory	Text (20)	Smith Jones	
O	Second Authorised Signatory	Text (20)	Smith Jones	
O	Third Authorised Signatory	Text (20)	Smith Jones	

Model – Unit

This Model includes all fields in Model – Update Unit plus the following:

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload.

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
O	Account Name	Text(255)	My Company		
O	Error Message	Long Text		O	Error Message

Model – Transaction

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
O	Transaction ID	Text(10)	0000000418		Will be null if payload fails basic validation
M	Transaction Status	Text(10)	Process Completed	See Transaction State Diagram	
M	Transaction Type	Text(10)	Unit	“Unit”	
M	Action Type	Text(10)	Update	“Unit”	

Payload Samples

Request

Example 1: Non-Balancing Mechanism Unit in Draft Status

```
{
  "Notification Address": "https://api.mycompany.com/SMPNotification",
  "Notification Username": "MyUsername",
  "Notification Password": "MyPassword",
  "Basket Effective From Date": "2029-12-29",
  "Action Type": "Update",
  "Units":
  {
    "Assets": [
      {
        "Unit Key": "0000106116",
        "Unit Key": 230000000000110,
        "Unit Status": "Draft",
        "Unit Type": "Generation Unit;Demand Unit",
        "Effective From Date": "2024-06-19",
        "Fuel Type": "Batteries",
        "Other Fuel Type": "ABC",
        "Generation Capacity": 297,
        "Demand Capacity": 200,
        "Connection Type": "Flexible",
        "Connected to DNO": true,
        "DNO": "Electricity North West",
        "Connection Point Voltage": "Other",
        "Other Connection Point Voltage": 40.2,
        "Postcode": "RG1 7QE",
        "Longitude": "-3.584902",
        "Latitude": "51.707079",
        "Nearest Node": "abha",
        "GSP": "ABHA_1",
        "Other GSP": "",
        "GSP Group": "Eastern England",
        "Primary Despatch Email Address": "Contact1@xyztestenergy.co.uk",
        "Primary Despatch Phone Country": "United Kingdom",
        "Primary Despatch Phone Number": "7554456564",
        "Secondary Despatch Email Address": "Contact2@xyztestenergy.co.uk",
        "Secondary Despatch Phone Country": "United Kingdom",
        "Secondary Despatch Phone Number": "7676567657",
        "Despatch Fax Number Country": "United Kingdom",
        "Despatch Fax Number": "4645654643",
        "Category": "Non- BMU",
      }
    ]
  }
}
```

Example 2: Balancing Mechanism Unit in Draft Status

```
{
  "Notification Address": "https://api.mycompany.com/SMPNotification",
  "Notification Username": "MyUsername",
  "Notification Password": "MyPassword",
  "Basket Effective From Date": "2029-12-29",
  "Action Type": "Update",
  "Units": [
    {
```

```
"Assets": [
    "0000220200"
],
"Account Name": "ABC LTD",
"Company ID": "10446550",
"Company Unique Identifier": 10009615,
"Unit Name": "Test BM Unit",
"Unit ID": null,
"Applicable Market": "Balancing Services",
"Unit Type": "Generation Unit;Demand Unit",
"Unit Status": "Draft",
"Effective From Date": "2029-06-19",
"Effective To Date": null,
"Fuel Type": "Other",
"Other Fuel Type": "Other",
"Generation Capacity": 0.01,
"Demand Capacity": 0.09,
"Connection Type": "Flexible",
"Connected to DNO": true,
"DNO": "ESB Networks",
"Connection Point Voltage": "400",
"Other Connection Point Voltage": 50,
"Postcode": "RG1 7QE",
"Longitude": "-3.584902",
"Latitude": "51.707079",
"Nearest Node": "abha",
"GSP": "ABHA_1;Others",
"Other GSP": "ABD_1",
"GSP Group": "Eastern England",
"Primary Despatch Email Address":
"contact@xyztestenergy.co.uk",
"Secondary Despatch Email Address":
"contact2@xyztestenergy.co.uk",
"Primary Despatch Phone Country": "United Kingdom",
"Primary Despatch Phone Number": "7554456564",
"Secondary Despatch Phone Country": "United Kingdom",
"Secondary Despatch Phone Number": "7676567657",
"Despatch Fax Number Country": "United Kingdom",
"Despatch Fax Number": "4645654643",
"Category": "Primary BMU",
"FPN Flag": "Yes",
"Supplier of Electricity": "No",
"Unit Key": 230000000010279,
"Application Contact Name": "John Smith",
"Application Contact Email": "john.smith@nationalgrid.com",
"Application Contact Number": "1212121212",
"Application Contact Country": "United Kingdom",
"Application Contact Country Code": "44",
"Manned Location Telephone Number": "1234567890",
"Manned Location Telephone Country": "United Kingdom",
"Manned Location Telephone Country Code": "44",
"DNO Connection Point": "ABC",
"EIC Resource Code (Type W)": "ABC",
"BM Registration": {
    "Unit Key": 23000000000096,
    "Control Point ID": "CP-000002",
    "Trading Agent ID": "TA-000001",
    "Elxon Unit Settlement Id": "No",
    "Control Telephony Installed": null,
    "Control Telephony Number": null,
    "Control Telephony Country": null,
    "Control Telephony Country Code": null,
    "System Telephony Installed": null,
    "System Telephony Number": null,
    "System Telephony Country": null,
    "System Telephony Country Code": null,
}
```

```

    "BM Contract Type": "BELLA",
    "Connected via OFTO": null,
    "OFTO Control Point Building Name": "CP Name",
    "OFTO Control Point Street": "CP Street",
    "OFTO Control Point City": "CP City",
    "OFTO Control Point Post Code": "ABC123",
    "OFTO Control Point County": "CP County",
    "OFTO Control Point Country": "United Kingdom",
    "OFTO Manager Name": "Smual Smith",
    "OFTO Manager Email": "xyz@mail.com",
    "OFTO Manager Telephone": "1234567890",
    "OFTO Manager Telephone Country": "United Kingdom",
    "OFTO Manager Telephone Country Code": "44",
    "OFTO Joint System Telephone Number": "1234567890",
    "OFTO Joint System Telephone Country": "United Kingdom",
    "OFTO Joint System Telephone Country Code": "44",
    "eGAMA Party Name": "Samuel Smith",
    "eGAMA Party Building Name": "Building Name",
    "eGAMA Party Street": "Street",
    "eGAMA Party City": "City",
    "eGAMA Party Post Code": "XYZ123",
    "eGAMA Party County": "Breshy",
    "eGAMA Party Country": "United Kingdom",
    "eGAMA Contact Name": "Joseph Kay",
    "eGAMA Contact Telephone Number": "1234567890",
    "eGAMA Contact Telephone Country": "United Kingdom",
    "eGAMA Contact Telephone Country Code": "44",
    "eGAMA Contact Email": "mail@mail.com",
    "Is SAA Metering capacity being used?": null,
    "SAA Max Deliverable Demand Capacity": null,
    "SAA Max Deliverable Generation Capacity": null,
    "SAA Nameplate Capacity": null
  }
}
]
}

```

Example 3: Unit in Accepted Status

```

{
  "Notification Address": "HTTPS://www.callback.xyztestenergy.co.uk",
  "Notification Username": "XYZ Test Energy",
  "Notification Password": "*****",
  "Basket Effective From Date": "2024-04-01",
  "Action Type": "Update",
  "Units": [{
    "Unit Name": "My unit 1",
    "Account Name": "ABC LTD",
    "Company ID": "13390812",
    "Company Unique Identifier": "10007733",
    "Unit ID": "22222",
    "Applicable Market": "Balancing Services",
    "Unit Type": "Demand Unit",
    "Unit Status": "Accepted",
  }
]
}

```

```

    "Effective From Date": "2024-03-29",
    "Effective To Date": null,
    "Fuel Type": "Biomass",
    "Other Fuel Type": null,
    "Generation Capacity": 0,
    "Demand Capacity": 123456719012345.33,
    "Connection Type": "Firm",
    "Connected to DNO": false,
    "DNO": null,
    "Connection Point Voltage": "275",
    "Other Connection Point Voltage": null,
    "Postcode": "11111111",
    "Longitude": "-3.584902",
    "Latitude": "51.707079",
    "Nearest Node": "ABC",
    "GSP": "ABHA_1",
    "Other GSP": null,
    "GSP Group": "Eastern England",
    "Primary Despatch Email Address": null,
    "Secondary Despatch Email Address": null,
    "Primary Despatch Phone Number": "1111111111",
    "Primary Despatch Phone Country": "United Kingdom",
    "Secondary Despatch Phone Number": "1111111111",
    "Secondary Despatch Phone Country": "United Kingdom",
    "Despatch Fax Number Country": null,
    "Despatch Fax Number": "United Kingdom",
    "Category": "Primary BMU",
    "Supplier of Electricity": null,
    "Unit Key": "200000000000333",
    "Assets": [
        "0000106753"
    ],
    "Unit Services": [
        {
            "Active Network Management": "Yes",
            "Allocated Volume": 122,
            "Cease Time": 11,
            "Cease Time": 11,
            "Cease Time (s)": 1,
            "Time to Full Delivery (in mins)": 1,
            "Time to Full Delivery (s)": 10,
            "Maximum Utilisation Period": 11,
            "Minimum Non Zero Time": 11,
            "Operational Metering Available": "Yes",
            "Ramp Down Rate": null,
            "Ramp Up Rate": 0,
            "Recovery Period": 11,
            "Response Time": 1,
            "Response Time (s)": 10,
            "Minimum Activation Period": 1,
            "Service End Date": "2032-12-21 01:00:00",
            "Service Start Date": "2022-12-21 07:00:00",
            "Service Status": "Approved",
            "Unit of Measurement": "MW",
            "Telephony Available from": "00:30",
            "Telephony Available to": "00:30",
            "Service Provision": "Generator",
            "Service Name": "Negative Balancing Reserve",
            "Service Code": "NBR",
            "First Authorised Signatory": "Smith Jones",
            "Second Authorised Signatory": null,
            "Third Authorised Signatory": null
        }
    ]
},
{
    "Unit Name": "Secondary Unit 12",

```

```
"Account Name": " ABC LTD ",
"Company ID": "11012159",
"Company Unique Identifier": "10007725",
"Unit ID": "AG-02C",
"Applicable Market": "Balancing Services",
"Unit Type": "Generation Unit;Demand Unit",
"Unit Status": "Accepted",
"Effective From Date": "2024-03-30",
"Effective To Date": null,
"Fuel Type": "Biomass",
"Other Fuel Type": null,
"Generation Capacity": 80,
"Demand Capacity": 80,
"Connection Type": "Firm",
"Connected to DNO": false,
"DNO": null,
"Connection Point Voltage": null,
"Other Connection Point Voltage": null,
"Postcode": null,
"Longitude": "-3.5904902",
"Latitude": "4.5904902",
"Nearest Node": null,
"GSP": "ABHA_1",
"Other GSP": null,
"GSP Group": "London",
"Primary Despatch Email Address": null,
"Secondary Despatch Email Address": null,
"Primary Despatch Phone Country": "United Kingdom",
"Primary Despatch Phone Number": "9876543210",
"Secondary Despatch Phone Country": "United Kingdom",
"Secondary Despatch Phone Number": "9876543210",
"Despatch Fax Number Country": null,
"Despatch Fax Number": null,
"Category": "Secondary BMU",
"Supplier of Electricity": null,
"Unit Key": "200000000000444",
"Assets": [
    "0000106758"
],
"Unit Services": [
    {
        "Active Network Management": "Yes",
        "Allocated Volume": 122,
        "Cease Time": 11,
        "Cease Time": 11,
        "Cease Time (s)": 1,
        "Time to Full Delivery (in mins)":1,
        "Time to Full Delivery (s)":10,
        "Maximum Utilisation Period": 11,
        "Minimum Non Zero Time": 11,
        "Operational Metering Available": "Yes",
        "Ramp Down Rate": null,
        "Ramp Up Rate": 0,
        "Recovery Period": 11,
        "Response Time": 1,
        "Response Time (s)": 10,
        "Minimum Activation Period": 1,
        "Service End Date": "2032-12-21 01:00:00",
        "Service Start Date": "2022-12-21 07:00:00",
        "Service Status": "Approved",
        "Unit of Measurement": "MW",
        "Telephony Available from": "00:30",
        "Telephony Available to": "00:30",
        "Service Provision": "Generator",
        "Service Name": "Negative Balancing Reserve",
        "Service Code": "NBR",
        "First Authorised Signatory": "Smith Jones",
```

```

        "Second Authorised Signatory": null,
        "Third Authorised Signatory": null
    }
]
},
{
    "Unit Name": "New unit 4567",
    "Account Name": " ABC LTD ",
    "Company ID": "11012159",
    "Company Unique Identifier": "10007725",
    "Unit ID": "AG-01B",
    "Applicable Market": "Balancing Services",
    "Unit Type": "Generation Unit;Demand Unit",
    "Unit Status": "Accepted",
    "Effective From Date": "2024-03-30",
    "Effective To Date": null,
    "Fuel Type": "Multi Fuel type",
    "Other Fuel Type": null,
    "Generation Capacity": 150,
    "Demand Capacity": 150,
    "Connection Type": "Firm",
    "Connected to DNO": false,
    "DNO": null,
    "Connection Point Voltage": null,
    "Other Connection Point Voltage": null,
    "Postcode": null,
    "Longitude": null,
    "Latitude": null,
    "Nearest Node": null,
    "GSP": "ABHA_1",
    "Other GSP": null,
    "GSP Group": "East Midlands",
    "Primary Despatch Email Address": null,
    "Secondary Despatch Email Address": null,
    "Primary Despatch Phone Country": "Algeria",
    "Primary Despatch Phone Number": "9876543210",
    "Secondary Despatch Phone Country": "Afghanistan",
    "Secondary Despatch Phone Number": "9876543210",
    "Despatch Fax Number Country": null,
    "Despatch Fax Number": null,
    "Category": "Secondary BMU",
    "Supplier of Electricity": null,
    "Unit Key": "200000000000555",
    "Assets": [
        "0000106758",
        "0000106759"
    ],
    "Unit Services": [
        {
            "Active Network Management": "Yes",
            "Allocated Volume": 122,
            "Cease Time": 11,
            "Cease Time": 11,
            "Cease Time (s)": 1,
            "Time to Full Delivery (in mins)":1,
            "Time to Full Delivery (s)":10,
            "Maximum Utilisation Period": 11,
            "Minimum Non Zero Time": 11,
            "Operational Metering Available": "Yes",
            "Ramp Down Rate": null,
            "Ramp Up Rate": 0,
            "Recovery Period": 11,
            "Response Time": 1,
            "Response Time (s)": 10,
            "Minimum Activation Period": 1,
            "Service End Date": "2032-12-21 01:00:00",
            "Service Start Date": "2022-12-21 07:00:00",
        }
    ]
}

```

```

        "Service Status": "Approved",
        "Unit of Measurement": "MW",
        "Telephony Available from": "00:30",
        "Telephony Available to": "00:30",
        "Service Provision": "Generator",
        "Service Name": "Negative Balancing Reserve",
        "Service Code": "NBR",
        "First Authorised Signatory": "Smith Jones",
        "Second Authorised Signatory": null,
        "Third Authorised Signatory": null
    },
    {
        "Active Network Management": "Yes",
        "Allocated Volume": 122,
        "Cease Time": 11,
        "Cease Time": 11,
        "Cease Time (s)": 1,
        "Time to Full Delivery (in mins)":1,
        "Time to Full Delivery (s)":10,
        "Maximum Utilisation Period": 11,
        "Minimum Non Zero Time": 11,
        "Operational Metering Available": "Yes",
        "Ramp Down Rate": null,
        "Ramp Up Rate": 0,
        "Recovery Period": 11,
        "Response Time": 1,
        "Response Time (s)": 10,
        "Minimum Activation Period": 1,
        "Service End Date": "2032-12-21 01:00:00",
        "Service Start Date": "2022-12-21 07:00:00",
        "Service Status": "Approved",
        "Unit of Measurement": "MW",
        "Telephony Available from": "00:30",
        "Telephony Available to": "00:30",
        "Service Provision": "Generator",
        "Service Name": "Negative Balancing Reserve",
        "Service Code": "NBR",
        "First Authorised Signatory": "Smith Jones",
        "Second Authorised Signatory": null,
        "Third Authorised Signatory": null
    }
]
},
"Assets":
[
    {
        "Asset Id": "0000106721",
        "Asset Name": "BS Test Asset 3",
        "Asset Owner Name": "ABC LTD",
        "Asset Owner Account Unique Identifier": "10007725",
        "Asset Owner Company ID": "11012159",
        "Asset Agent Name": null,
        "Asset Agent Company ID": null,
        "Asset Agent Account Unique Identifier ": "10048332",
        "Asset Type": "Generation Unit",
        "Asset Status": "Versioned",
        "Applicable Market": "Balancing Services",
        "Effective From Date": "2024-03-05",
        "Effective To Date": "2024-04-03",
        "Fuel Type": "Biomass",
        "Other Fuel Type": null,
        "Generation Capacity": 60,
        "Demand Capacity": null,
        "Connection Type": "Firm",
        "Connected to DNO": false,
        "DNO": null,
    }
]

```

```
"DNO Unique Reference Number": null,
"Connection Point Voltage": null,
"Other Connection Point Voltage kV": null,
"Connection Method": null,
"Postcode": "12345",
"Longitude": 73.01,
"Latitude": 72.01,
"Nearest Node": "sdf",
"GSP": "ABHA_1",
"Other GSP": null,
"GSP Group ID": "East Midlands",
"Primary Despatch Phone Country": "United Kingdom",
"Primary Despatch Phone Number": "3333333333",
"Secondary Despatch Phone Country": "United Kingdom",
"Secondary Despatch Phone Number": "4444444444",
"Fax Despatch Phone Country": null,
"Fax Despatch Phone Number": null,
"Operational Metering Availability": "Yes",
"Asset Size": null,
"Site Contact Name": null,
"Site Contact Number": null,
"Site Street Address": "St",
"Site City": "qw",
"Site State or County": "qwe",
"Site Country": "qw",
"Agent or Applicant Operational Email": null,
"Agent or Applicant Operational Phone": null,
"Asset Testing Service": null
},
{
  "Asset Id": "0000106721",
  "Asset Name": "BS Test Asset 3",
  "Asset Owner Name": " ABC LTD ",
  "Asset Owner Account Unique Identifier": "10007725",
  "Asset Owner Company ID": "11012159",
  "Asset Agent Name": "OPEN LIMITED",
  "Asset Agent Company ID": "04037885",
  "Asset Agent Account Unique Identifier": "10048311",
  "Asset Type": "Generation Unit",
  "Asset Status": "Accepted",
  "Applicable Market": "Balancing Services",
  "Effective From Date": "2024-04-04",
  "Effective To Date": "2024-04-05",
  "Fuel Type": "Biomass",
  "Other Fuel Type": null,
  "Generation Capacity": 60,
  "Demand Capacity": null,
  "Connection Type": "Firm",
  "Connected to DNO": false,
  "DNO": null,
  "DNO Unique Reference Number": null,
  "Connection Point Voltage": null,
  "Other Connection Point Voltage kV": null,
  "Connection Method": null,
  "Postcode": "12345",
  "Longitude": 73.01,
  "Latitude": 72.01,
  "Nearest Node": "sdf",
  "GSP": "ABHA_1",
  "Other GSP": null,
  "GSP Group ID": "East Midlands",
  "Primary Despatch Phone Country": "United Kingdom",
  "Primary Despatch Phone Number": "3333333333",
  "Secondary Despatch Phone Country": "United Kingdom",
  "Secondary Despatch Phone Number": "4444444444",
  "Fax Despatch Phone Country": null,
  "Fax Despatch Phone Number": null,
```

```
"Operational Metering Availability": "Yes",
"Asset Size": null,
"Site Contact Name": null,
"Site Contact Number": null,
"Site Street Address": "St",
"Site City": "qw",
"Site State or County": "qwe",
"Site Country": "qw",
"Agent or Applicant Operational Email": null,
"Agent or Applicant Operational Phone": null,
"Asset Testing Service": null
},
{
  "Asset Id": "0000106759",
  "Asset Name": "Asset 2 29 Mar",
  "Asset Owner Name": " ABC LTD ",
  "Asset Owner Account Unique Identifier": "10007725",
  "Asset Owner Company ID": "11012159",
  "Asset Agent Name": null,
  "Asset Agent Company ID": null,
  "Asset Agent Account Unique Identifier": "10048234",
  "Asset Type": "Generation Unit;Demand Unit",
  "Asset Status": "Accepted",
  "Applicable Market": "Balancing Services",
  "Effective From Date": "2024-03-29",
  "Effective To Date": null,
  "Fuel Type": "CCGT",
  "Other Fuel Type": null,
  "Generation Capacity": 70,
  "Demand Capacity": 70,
  "Connection Type": "Firm",
  "Connected to DNO": false,
  "DNO": null,
  "DNO Unique Reference Number": null,
  "Connection Point Voltage": null,
  "Other Connection Point Voltage kV": null,
  "Connection Method": null,
  "Postcode": "70",
  "Longitude": 70,
  "Latitude": 70,
  "Nearest Node": "70",
  "GSP": "ABTH_1",
  "Other GSP": null,
  "GSP Group ID": "East Midlands",
  "Primary Despatch Phone Country": "United Kingdom",
  "Primary Despatch Phone Number": "9876543210",
  "Secondary Despatch Phone Country": "United Kingdom",
  "Secondary Despatch Phone Number": "9876543210",
  "Fax Despatch Phone Country": null,
  "Fax Despatch Phone Number": null,
  "Operational Metering Availability": "Yes",
  "Asset Size": null,
  "Site Contact Name": null,
  "Site Contact Number": null,
  "Site Street Address": "70",
  "Site City": "70",
  "Site State or County": "70",
  "Site Country": "70",
  "Agent or Applicant Operational Email": null,
  "Agent or Applicant Operational Phone": null,
  "Asset Testing Service": [
    {
      "Date Approved by ITE": "2024-03-30",
      "Service Name": "Dynamic Regulation HF",
      "Service Code": "DRH",
      "Tested Capacity": 90,
      "Unit of Measurement": "MW"
    }
  ]
}
```

```

    },
    {
      "Date Approved by ITE": "2024-03-30",
      "Service Name": "Static FFR",
      "Service Code": "SFR",
      "Tested Capacity": 80,
      "Unit of Measurement": "MW"
    }
  ]
}

```

Response - Success

```

{
  "Transaction ID": "CL-0000001135",
  "Transaction Status": "Load Completed",
  "Transaction Type": "Inventory",

  "Action Type": "Update"
}

```

Response - Failure

```

{
  "Transaction ID": null,
  "Transaction Status": "Load Failed",
  "Transaction Type": "Inventory",

  "Action Type": "Update",
  "Unit":
  {
    "Error Message": "Postcode: Missing Mandatory Field"
  }
}

```

Notification - Failure

```

{
  {
    "Transaction Type": "Inventory",
    "Transaction ID": "CL-0000001135",
    "Transaction Status": "Process Error",
    "Action Type": "Update",
    "Units":
    [
      {
        "Unit Key": "2000000000000333",
        "Error Message": "Unit Name: Missing Mandatory Field",
        "Unit Service":
        [

```

```

        {
            "Unit Service Name":"MyUnitService01",
            "Error Message":"Unit Service Name: Missing Mandatory Field"
        }
    ]
}
],
"Assets":[
    {
        "Asset Id": "0000106721",
        "Error Message":"Operational Metering Availability: Missing Mandatory
Field",
        "Asset Testing Services":
        [
            {
                "Asset Testing Service Name":"MyUnitService01",
                "Error Message":"Asset Testing Service Name: Missing Mandatory
Field"
            }
        ]
    }
]
}
]
}

```

Notification - Success

```

{
  "Transaction Type": "Inventory",
  "Transaction ID":"CL-0000000143
  "Transaction Status": "Process Completed",
  "Action Type":"Update"
}

```

API: Update Inventory – Delta

Overview

This functionality has been developed to enable the Market Participant to update their inventory without the need to submit the details of parameters that they do not wish to update. They can include the Asset Keys of the Asset they want to add to a Unit under “AddAssets” and those they want to remove from a Unit under “RemoveAssets”.

If the Allocated Volume of a Unit Service needs to change, this value can be included under “Unit Services”.

If the Generation/Demand Capacity of an Asset needs to change, this can be included under “Assets”. If an Asset is being aligned to a Unit with a Unit Service that request Asset Testing Service information, this can be included under "Asset Testing Service".

Payload Samples

Request

Example 1: Add or Remove Assets

```
{
  "Notification Address": "https://neso-smp-mock-testing-khhu6t.internal-9gmr6n.gbr-e1.cloudhub.io/api/v1/sample",
  "Notification Username": "MyUsername",
  "Notification Password": "MyPassword",
  "Basket Effective From Date": "2029-12-29",
  "Action Type": "Update",
  "Units": [
    {
      "Unit Key": 230000000000097,
      "AddAssets": [
        "0000150267"
      ],
      "RemoveAssets": [
        "0000150265"
      ],
      "Unit Services": [
        {
          "Service Name": "Dynamic Containment LF",
          "Allocated Volume": 22
        }
      ]
    }
  ],
  "Assets": [
    {
      "Asset Id": "0000150266",
      "Generation Capacity": 30,
      "Demand Capacity": 40,
      "Asset Testing Service": [
        {
          "Service Name": "Dynamic Regulation HF",
          "Tested Capacity": 9,
          "Date Approved by ITE": "2026-02-16"
        }
      ]
    }
  ]
}
```

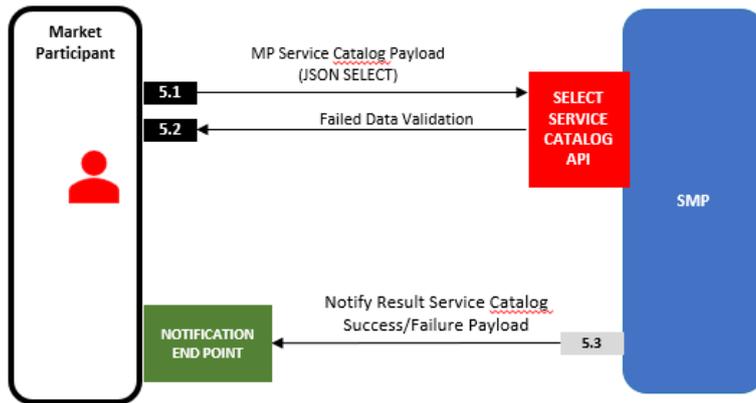
Example 2: Modify Asset Values

```
{
  "Notification Address": "https://api.mycompany.com/SMPNotification",
  "Notification Username": "MyUsername",
  "Notification Password": "MyPassword",
  "Basket Effective From Date": "2029-12-29",
  "Action Type": "Update",
  "Units": [
    {
```

```
"Unit Key": 200000000000443
},
],
"Assets": [
  {
    "Asset Id": "123456789"
    "Generation Capacity": 60
    "Demand Capacity": null
    "Asset Testing Service": [
      {
        "Service Name": "Dynamic Regulation HF",
        "Tested Capacity": 90,
        "Date Approved by ITE": "2024-03-30"
      },
      {
        "Service Name": "Static FFR",
        "Tested Capacity": 80,
        "Date Approved by ITE": "2024-03-30"
      }
    ]
  }
]
}
```

API: Select Service Catalog

Overview



#	Dataflow	Transfer Type	Payload
5.1	Submit Service Catalog Request	Request	
5.2	Transaction Response	Response	<ul style="list-style-type: none"> Transaction ID
5.3	Notification	Request	Service Catalog Transaction JSON file providing: <ul style="list-style-type: none"> JSON file with Service Catalog details

Payload Samples

Notification - Success

```

{
  "Transaction Type": "Service Catalog",
  "Transaction Status": "Success",
  "Action Type": "Select",
  "Service Catalog": [
    {
      "Ancillary Service Name": "RDP MW Dispatch",
      "Service Effective From": "2022-12-21",
      "Service Effective To": "2032-12-21",
      "Service Type": "Reserve",
      "Service Code": "RDP"
    }
  ]
}

{
  "Ancillary Service Name": "Dynamic Moderation HF",
  "Service Effective From": "2022-12-21",
}
  
```

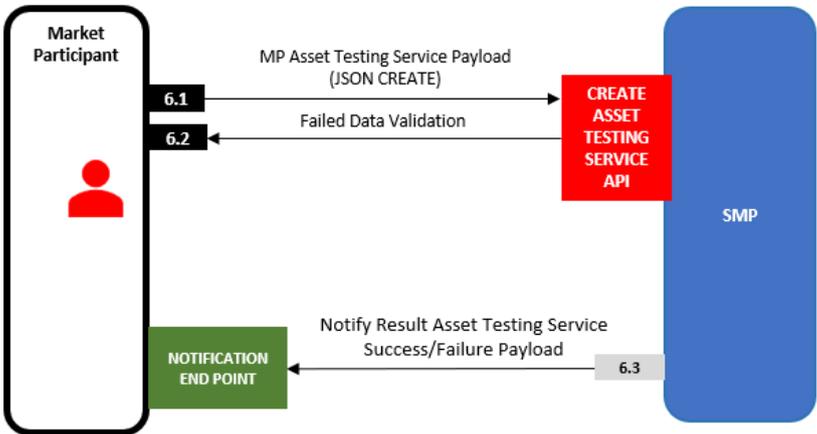
```

    "Service Effective To": "2022-12-21",
    "Service Type": "Response",
    "Service Code": "DMH"
  }
]
}

```

API: Create Asset Testing Service

Overview



#	Dataflow	Transfer Type	Payload
6.1	Submit Asset Testing Service Transaction	Request	JSON Asset Payload
6.2	Transaction Response	Response	One of: <ul style="list-style-type: none"> Failed Data Validation Transaction ID

6.3	Notification	Request	<p>Asset Testing Service Transaction JSON file providing:</p> <ul style="list-style-type: none"> • Successful records with SMP Asset Testing Service ID • Unsuccessful records with errors
-----	--------------	---------	--

Specification

Request

The request is a simple JSON payload made up of 2 sections:

Key	Value
<pre>{ <Notify Block>, "Asset Testing Services": [{<Create Asset Testing Service>}, {<Create Asset Testing Service >}] }</pre>	<p>Information required for SMP API to notify of transaction completion – see “Model – Notify” for key-value pairs contained in <Notify Block> Section containing information on the Assets to be loaded into SMP. It will consist of one or more instance of <Create Asset Testing Service >. See “Model – Create Asset Testing Service” for key-value pairs.</p>

Response

A successful response is a JSON payload made up of 2 sections

<pre>{ <Transaction Block>, "Asset Testing Services": [{<Asset Testing Service Block>}, {<Asset Testing Service Block>}] }</pre>	<p>Information to notify of transaction information – see “Model – Transaction” for key-value pairs contained in <Transaction Block></p> <p>Optional Section containing information on the Asset Testing Services to be loaded into SMP. It will consist of one or more instance of <Asset Testing Service Block>. See “Model – Create Asset” for key-value pairs.</p>
---	--

Notify

After a Create Asset Testing Service transaction has completed, the resulting notification will consist of a JSON payload made up of 2 sections

<pre>{ <Transaction Block>, "Asset Testing Services": [{<Asset Testing Service Block>}, {<Asset Testing Service Block>}] }</pre>	<p>Information to notify of transaction information – see “Model – Transaction” for key-value pairs contained in <Transaction Block> Section containing information on the Asset Testing Services to be loaded into SMP. It will consist of one or more instance of <Asset Testing Service Block>. See “Model – Asset” for key-value pairs.</p>
---	---

}

Payload Models

Model – Notify

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
M	Notification Address	Text(255)	https://api.myco.com/SMPNotify/		
O	Notification Username	Text(255)	MyUsername		
O	Notification Password	Text(255)	MyPassword		

Model – Create Asset Testing Service

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values / Pattern	Other Validation Rule
M	Asset Id	Text(10)	7294652834		
M	Date				
M	ApprovedDate by ITE		23/06/2022	DD/MM/YYYY	
M	Service Name	Text (255)	Dynamic Containment LF	Obtainable through 'Select Service Catalog' API	
M	Tested Capacity	Number(16,2)	156.2		

Model – Transaction

INDEX: M/O specifies if it is Mandatory or Optional to provide value in the Payload

M/O	Tag	Data Type	Example	Allowed Values	Other Validation Rule
-----	-----	-----------	---------	----------------	-----------------------

O	Transaction ID	Text(10)	CL-0000001135	Will be null if payload fails basic validation
M	Transaction Status	Text(10)	Process Completed	See Transaction State Diagram
M	Transaction Type	Text(10)	Asset Testing Service	"Asset", "Unit", "Asset Testing Service"
M	Action Type	Text(10)	Create	"Create"

Payload Samples

Request

```
{
  "Notification Address": "https://api.mycompany.com/SMPNotification",
  "Notification Username": "MyUsername",
  "Notification Password": "MyPassword",
  "Action Type": "Create",
```

```

"Asset Testing Service": [{
  "Asset ID": "0000101618",
  "Tested Capacity": "5",
  "Date Approved by ITE": "2023-05-10",
  "Service Name": "Dynamic Containment LF"
},{
  "Asset ID": "0000101619",
  "Tested Capacity": "90",
  "Date Approved by ITE": "2023-03-01",
  "Service Name": "Dynamic Moderation LF"
},{
  "Asset ID": "0000101638",
  "Tested Capacity": "50",
  "Date Approved by ITE": "2023-01-30",
  "Service Name": "Dynamic Regulation HF"
}]
}

```

Response - Success

```

{
  "Transaction ID": "CL-0000001135",
  "Transaction Status": "Load Completed",
  "Transaction Type": "Asset Testing Service",
  "Action Type": "Create"
}

```

Response - Failure

```

{
  "Transaction ID": "CL-0000001135",
  "Transaction Status": "Load Failed",
  "Transaction Type": "Asset Testing Service",
  "Action Type": "Create",
  "Asset Testing Service": [
    {
      "Asset ID": "0000101618",
      "Service Name": "Dynamic Containment LF",
      "Error Message": "Service Name: Missing Mandatory Field"
    },
    {
      "Asset ID": "0000101619",
      "Service Name": "Dynamic Moderation LF",
      "Error Message": "Service Name: Missing Mandatory Field"
    }
  ]
}

```

Notification - Failure

```

{
  "Transaction ID": "CL-0000001135",
  "Transaction Status": "Process Completed",
  "Transaction Type": "Asset Testing Service",
  "Action Type": "Create",
  "Asset Testing Services":
    {
      "Asset ID": "0000101618",
      "Tested Capacity": "5",
      "Date Approved by ITE": "2023-05-10",
      "Service Name": "Dynamic Containment LF",
      "Error Message": "Service Name: Missing Mandatory Field"
    }
}

```

Notification - Success

```
"Transaction ID":"CL-0000001135",
"Transaction Status":"Process Completed",
"Transaction Type":"Asset Testing Service",
"Action Type":"Create",
"Asset Testing Service": [
  {
    "Asset ID": "0000101618",
    "Tested Capacity": "5",
    "Date Approved by ITE": "2023-05-10",
    "Service Name": "Dynamic Containment LF"
  }
  {
    "Asset ID": "0000101619",
    "Tested Capacity": "90",
    "Date Approved by ITE": "2023-03-01",
    "Service Name": "Dynamic Moderation LF"
  }
]
}
```

Appendix A: Picklist Tables

Boolean

Allowed Values

true, false

Operational Metering Availability

Allowed Values

Yes, No

Asset Markets

Allowed Values

Balancing Services, RDP MW Dispatch

Unit Markets

Allowed Values

Balancing Services

Unit Types

Allowed Values

Generation Unit, Demand Unit

Fuel Type

Allowed Values

Batteries, Biomass, BM (SVA/VLP/Battery), CCGT, Coal, Diesel, DSF: Distributed generation (export), DSF: Distributed generation (on-site), DSF: Storage (export), DSF: Storage (on-site), Gas Reciprocating Engines, Interconnector, Load Response, Multi Fuel type, Non-Pump Storage Hydro, Nuclear, OCGT, Pump Storage, Solar, Wind, Other

Categories

Allowed Values

Primary BMU, Secondary BMU, Additional Supplier BMU, Non-BMU

Are you a Supplier of Electricity

Allowed Values

Yes, No

Connection Type

Allowed Values

Firm, Flexible

Connection Method

Allowed Values

Distribution, Private Lines, Transmission

DNO

Allowed Values

Electricity North West, ESB Networks, Northern Ireland Electricity Networks, Northern Powergrid, SP Energy Networks, Scottish and Southern Electricity Networks, UK Power Networks, National Grid Electricity Distribution

Connection Point Voltage (kV)

Allowed Values

400, 275, 132, 33, 11, 6.6, 3.3, Other

Capability

Allowed Values

None, Industrial and Commercial Demand Side Flexibility, Domestic Demand Side Flexibility

Meter Refresh

Allowed Values

1s Refresh Rate, >1s and <=30s Refresh Rate, >30s and <=60s Refresh Rate

GSP

Allowed Values

ABHA_1, ABNE_3, ABTH_1, ALDW_31, ALDW_32, ALNE_3, ALVE_1, AMEM_1, ARBR_3, ARMO_3, AXMI_1, AYRR_3, BAGA_3, BAIN_3, BARK_3, BEAU_3, BEDD_1, BERW_3, BESW_1, BICF_1, BIRK_1, BISW_1, BLYT_6, BOAG_3, BOLN_1, BONN_3, BOTW_1, BPGR_3, BRAC_3, BRAI_1, BRAP_3, BRAW_1, BRED_1, BRFO_1, BRID_3, BRIM_1, BRK1_1, BRL1_1, BRL3_1, BRLE_2, BROA_3, BROR_3, BROX_3, BRWA_1, BUMU_3, BURW_1, BUSH_1, BUST_1, CAAD_3, CAML_6, CANT_1, CAPE_1, CARI_1, CARE_1, CARR_12, CASK_3, CASS_3, CATY_3, CEAN_5, CELL_1, CHAP_3, CHAR_3, CHAS_3, CHIC_1, CHS2_1, CHS3_1, CHTE_1, CITR_1, CLAC_5, CLAY_3, CLYM_3, COAT_3, COCK_3, COUA_3, COVE_1, COWL_1, COYL_3, CRAI_3, CREB_1, CROO_3, CULJ_3, CUMB_3, CUPA_3, CURR_5, DEES_1, DEVM_3, DEVO_3, DEWP_3, DOUN_3, DRAK_1, DRAX_1, DRCR_3, DRUM_3, DUBE_3, DUDH_3, DUGR_3, DUMF_3, DUMF_5, DUNB_3, DUNF_3, DUNO_3, DYCE_3, EALI_6, EASO_1, ECCL_3, ECLA_1, EERH_3, EKIL_3, EKIS_3, ELDE_3, ELGI_3, ELLA_1, ELS2_1, ELSA_1, ENDE_1, ERSK_3, EXET_1, FASN_3, FAUG_3, FAWL_1, FECK_6, FERB_1, FERB_6, FIDD_3, FIDF_1, FLEE_1, FRAS_3, FROD_1, FWIL_3, GALA_3, GIFF_3, GLAG_3, GLLU_3, GLNI_3, GLOU_1, GLRO_3, GORG_3, GOVA_3, GRAN_6, GREN_1, GRIW_1, GRMO_3, GRTO_6, GRUB_3, HACK_6, HAGR_3, HARI_1, HARK_13, HARM_6, HAWI_3, HAWP_6, HCK1_1, HELE_3, HEYS_1, HUNF_3, HURS_1, HUTT_1, IMPP_3, INCE_1, INDQ_1, INKE_3, INNE_3, IROA_1, IRON_1, IVER_1, IVER_6, JOHN_3, JORD_3, KAIM_3, KEAD_1, KEAR_1, KEAR_3, KEIT_3, KEMI_1, KIBY_1, KIER_3, KIIN_3, KILB_3, KILB_5,

KILO_3, KILS_3, KILT_3, KILW_3, KINO_1, KINT_3, KIRK_1, KITW_1, LACK_6,
LAIR_3, LALE_1, LAND_1, LEGA_1, LEMR_1, LEVE_3, LING_3, LINM_3,
LINT_6, LISD_1, LITT_1, LODR_6, LOVE_1, LUNA_3, LYND_3, MACC_2,
MACD_3, MANN_1, MAYB_3, MEAD_1, MELK_1, MILC_3, MILH_1, MITY_1,
MOSW_3, MYBS_3, NAIR_3, NEAR_3, NECH_11, NECH_12, NEEP_3,
NETS_3, NEW1_1, NEWX_6, NFLE_1, NHYD_6, NINF_1, NORL_3, NORT_2,
NORW_1, NURS_1, OCKH_1, OFFE_3, OLDB_1, OSBA_1, PADI_1, PAIS_3,
PART_3, PEHG_3, PEHS_5, PELH_1, PEMB_1, PENE_1, PENN_1, PENT_1,
PENW_1, PERS_3, PITS_31, PITS_32, POOB_3, POPP_3, PORA_3, PORD_3,
PYLE_1, RAIN_1, RANN_3, RASS_1, RATS_1, RAVE_3, RAYL_1, REBR_3,
REDH_3, REDM_3, RICH_1, ROCH_1, ROCK_1, RUGE_1, RYEH_1, SACO_3,
SALH_1, SANX_3, SEAB_1, SEL1_1, SELL_1, SFEG_5, SFEM_5, SFIL_3,
SHEC_3, SHEE11, SHIN_5, SHRE_1, SHRU_3, SIGH_3, SJOW_1, SKLG_1,
SLOY_5, SMAN_1, SPAV_3, SPEN_1, SSSI_3, STAH_1, STAL_1, STAY_1,
STEW_1, STHA_3, STIR_3, STLE_3, STMO_1, STOB_1, STRI_3, SUND_1,
SWAN_1, SYDI_1, TARL_3, TAUN_1, TAYN_3, TELR_3, TEMP_3, THOM_6,
THSO_3, THUR_6, TILB_11, TILB_12, TINP_31, TINP_32, TODP_6, TONG_5,
TOTT_1, TRAW_1, TREM_3, TUMB_3, TYNE_1, TYNE_5, UPPB_1, UPPB_3,
USKM_1, USKM_3, WALP_1, WARL_1, WASF_1, WATS_1, WBOL_6, WBUR_1,
WFIE_3, WGEO_3, WHAM_1, WHGA_1, WHHO_3, WHSO_2, WHTL_3,
WIBA_3, WIEN_1, WILL_1, WILT_6, WIM2_1, WIMB_11, WIOW_3, WISD_1,
WISD_6, WISH_3, WMEL_1, WOHI_3, WTHU_3, WWEY_1, WYLF_1,
WYMO_1, Others

GSP Group

Allowed Values

Eastern England, East Midlands, London, Merseyside and Northern
Wales, West Midlands, North Eastern England, North Western England,
Northern Scotland, Southern Scotland, South Eastern England,
Southern England, Southern Wales, South Western England, Yorkshire

Country (Telephone)

Allowed Values

United Kingdom, Afghanistan, Albania, Algeria, American Samoa, Andorra, Angola, Anguilla, Antarctica, Antigua and Barbuda, Argentina, Armenia, Aruba, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, British Indian Ocean Territory, British Virgin Islands, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Cayman Islands, Central African Republic, Chad, Chile, China, Christmas Island, Cocos Islands, Colombia, Comoros, Cook Islands, Costa Rica, Croatia, Cuba, Curacao, Cyprus, Czech Republic, Democratic Republic of the Congo, Denmark, Djibouti, Dominica, Dominican Republic (+1809), Dominican Republic (+1829), Dominican Republic (+1849), East Timor, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Falkland Islands, Faroe Islands, Fiji, Finland, France, French Polynesia, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar, Greece, Greenland, Grenada, Guam, Guatemala, Guernsey, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Isle of Man, Israel, Italy, Ivory Coast, Jamaica, Japan, Jersey, Jordan, Kazakhstan, Kenya, Kiribati, Kosovo, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macao, Macedonia, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Mauritania, Mauritius, Mayotte, Mexico, Micronesia, Moldova, Monaco, Mongolia, Montenegro, Montserrat, Morocco, Mozambique, Myanmar, Namibia, Nauru, Nepal, Netherlands, Netherlands Antilles, New Caledonia, New Zealand, Nicaragua, Niger, Nigeria, Niue, North Korea, Northern Mariana Islands, Norway, Oman, Pakistan, Palau, Palestine, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Pitcairn, Poland, Portugal, Puerto Rico (+1787), Puerto Rico (+1939), Qatar, Republic of the Congo, Reunion, Romania, Russia, Rwanda, Saint Barthelemy, Saint Helena, Saint Kitts and Nevis, Saint Lucia, Saint Martin, Saint Pierre and Miquelon, Saint Vincent and the Grenadines, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Sint Maarten, Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Suriname, Svalbard and Jan Mayen, Swaziland, Sweden, Switzerland, Syria, Taiwan, Tajikistan, Tanzania, Thailand, Togo, Tokelau, Tonga, Trinidad and Tobago, Tunisia, Turkey,

Turkmenistan, Turks and Caicos Islands, Tuvalu, U.S. Virgin Islands, Uganda, Ukraine, United Arab Emirates, United States, Uzbekistan, Vanuatu, Vatican, Venezuela, Vietnam, Wallis and Futuna, Western Sahara, Yemen, Zambia, Zimbabwe

Telephone Available From/To

Allowed Values

Appendix B: General Errors

When errors are encountered in an API request, a technical error payload will be sent. The table below includes the list of error codes, descriptions and details which can be received.

HTTPS Error Code	Issue	Details
401 Unauthorized	Invalid token	<p>The token has failed validation. This may be for one of the following reasons:</p> <ul style="list-style-type: none">• Token was not generated by NESO• Token has been modified so the signature fails validation• Token has expired• Token is incomplete
400 Bad Request	Invalid Grant	<p>The token provided does not have a valid grant for this application. This may be because you haven't been granted access privileges for this API. Or Username or password Incorrect</p>
400 Bad Request	Bad Request	<p>If there is issue with the Payload, e.g. Mandatory fields are missing or wrong, e.g.</p> <ul style="list-style-type: none">• Invalid datatype• Parameter has invalid length/format
404 Not Found	Not Found	<p>Wrong URL used</p>
500 Internal Server Error	Internal Server Error	<p>An unknown error has occurred within the API Endpoint. If this recurs, please contact support</p>

Appendix C: Version History

Version	Date	Scope of Change
1.00	25 th Nov 2022	First External Release
1.00a	1 st Dec 2022	Update to Diagram Keys
1.01	6 th Jan 2023	Minor updates
1.01a	24 th Jan 2023	Updates to Data Models and Payload Samples
1.02	20 th Jun 2023	New APIs for Select Service Catalog and Create Asset Testing Services
1.03	8 th Apr 2024	New APIs for Select Asset and Unit
1.04	29 th Jul 2024	New API for Update Inventory
1.05	19 th Sep 2024	Rebranded for NESO
1.06	16 th May 2025	Updated model and payloads for BM Registration information.
1.07	16 th Aug 2025	Updated model and payload for BM Registration information.
1.08	29 th Oct 2025	New API for Create MPAN Pair
1.09	Dec 2025	Removed References to Demand Flexibility Service