



Flexible Power

Flexibility Services

CUSTOMER PORTAL GUIDE

March 2021 v1



Internal Use

Better future, quicker

Introduction

This document will take Flexible Power participants through a step by step process to submit their first declarations and can thereafter be used for reference if having any difficulties. The way the Flexible Power system has been developed includes a safe environment called 'UAT' which allows for testing and training. The initial instructions in the process direct a new participant to familiarise themselves with the systems and process in this environment before completing on the live system.

- The UAT Environment (for testing only) is found at: <https://uat.flexiblepower.co.uk/>
- Production (live site, dispatching will result in sending a dispatch order to the participants): <https://flexiblepower.co.uk>
- Please use Chrome or IE browser to access the platform. The platforms cannot be used on Safari

1. Accessing the Portal for the first time

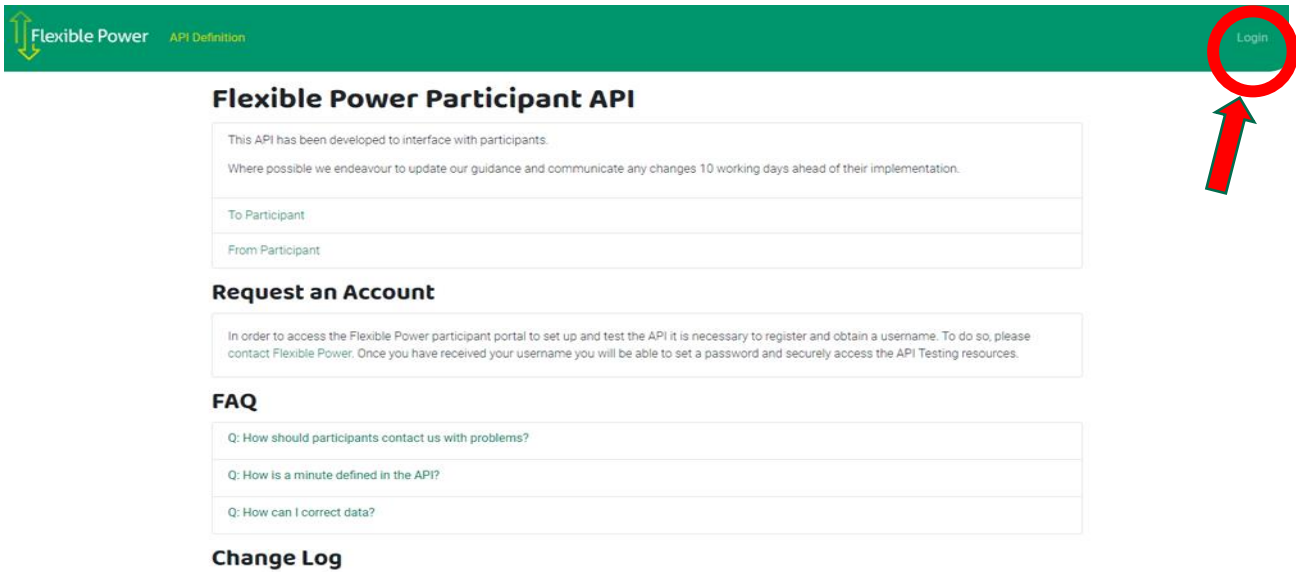
New participants requiring access to the Flexible Power customer portal can do so by providing the following information to flexibility@spenergynetworks.co.uk :

- Organisation / Company name
- Zones in which they wish to declare capacity
- Initial Contact Person's name and email address

An account will then be created for the user in the User Acceptance Testing (UAT) environment and Flexible Power will send a notification when this has been completed.

The Participant should then visit; <https://uat.flexiblepower.co.uk/>

Follow the 'Login' link at the top right corner of the page



Flexible Power API Definition [Login](#)

Flexible Power Participant API

This API has been developed to interface with participants.
Where possible we endeavour to update our guidance and communicate any changes 10 working days ahead of their implementation.

To Participant
From Participant

Request an Account

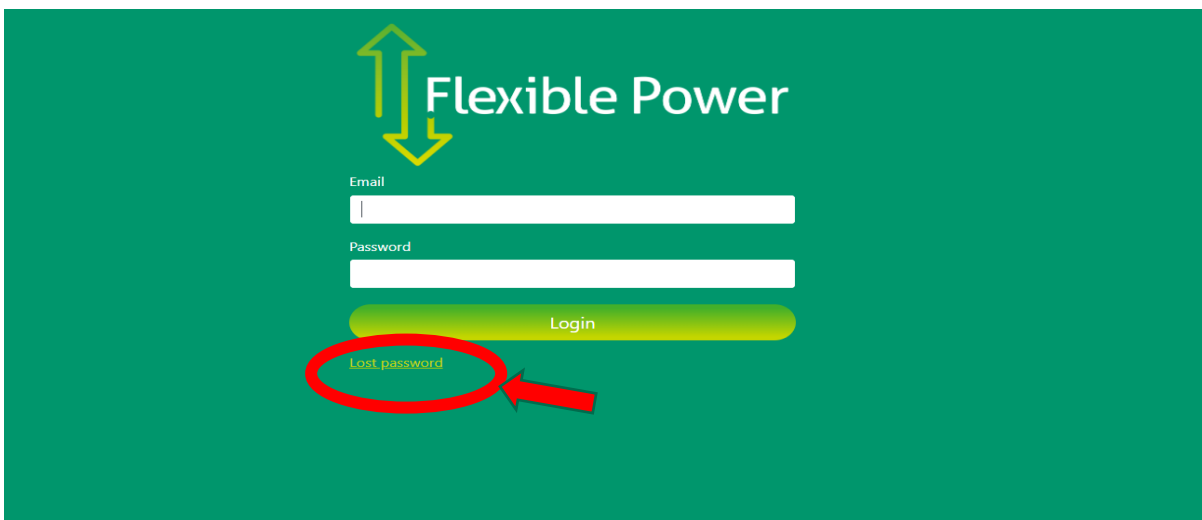
In order to access the Flexible Power participant portal to set up and test the API it is necessary to register and obtain a username. To do so, please contact Flexible Power. Once you have received your username you will be able to set a password and securely access the API Testing resources.


FAQ

Q: How should participants contact us with problems?
Q: How is a minute defined in the API?
Q: How can I correct data?

Change Log

This link will take the user to a page that has a box to input email address and password. On the first time visiting this page the user should use the 'lost password' link and input the email address previously provided in the email requesting registration



 Flexible Power

Email

Password

Login

[Lost password](#)

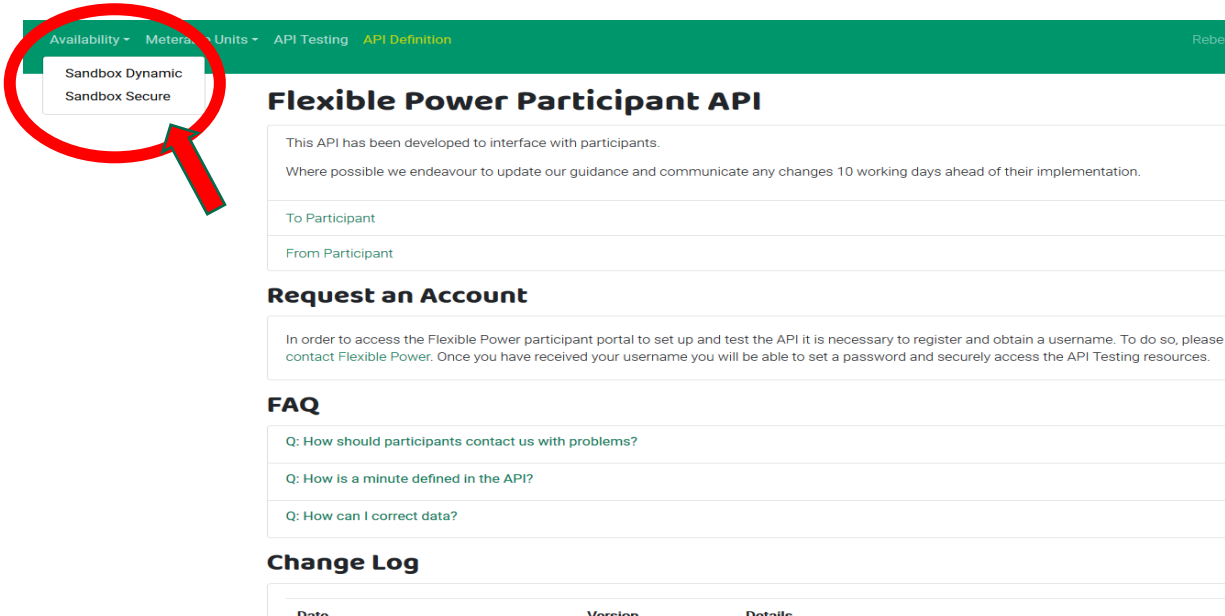
Please check the email account for an email from Flexible Power with a reset link to create the user's password. (please note, only one user account per organisation is typically provided in the UAT environment, but multiple are permitted when set up in Production)

An email from Flexible Power will allow the user access to the Participant Portal to ensure that the API is fully functioning and to familiarise themselves with the various actions around the declarations processes.

1. Creating Declarations

Click on the 'Availability' menu and four zones should be shown in the drop down.

Select 'Sandbox' from the drop-down menu of Zones. In 'Production' environment this will list the zones in which the participant has capacity. Please note that the zone is designated as a 'Dynamic' service zone but this the principals are the same for all services.



Availability - Meterable Units - API Testing - API Definition

Sandbox Dynamic
Sandbox Secure

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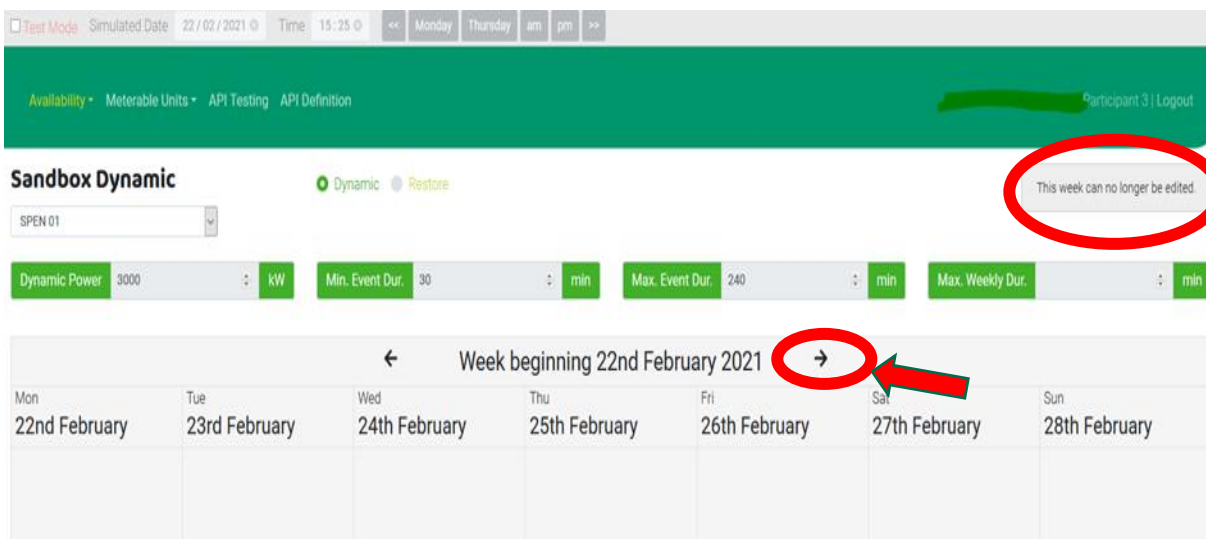
FAQ

Q: How should participants contact us with problems?
Q: How is a minute defined in the API?
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Change Log

Date	Version	Details
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There is an information dialogue in the top right that tells you whether the current viewed week is available for editing. Navigate the weeks using the arrows next to the date to find the editable week.



Test Mode Simulated Date 22/02/2021 Time 15:25 Monday Thursday am pm

Availability - Meterable Units - API Testing - API Definition Participant 3 | Logout

Sandbox Dynamic

Dynamic Restore

SPEN 01

Dynamic Power 3000 kW Min. Event Dur. 30 min Max. Event Dur. 240 min Max. Weekly Dur. min

← Week beginning 22nd February 2021 →

Mon	Tue	Wed	Thu	Fri	Sat	Sun
22nd February	23rd February	24th February	25th February	26th February	27th February	28th February

Test Mode Simulated Date 22/02/2021 Time 15:25 << Monday Thursday am pm >>

Availability Meterable Units API Testing API Definition Participant 3 | Logout

Sandbox Dynamic Dynamic Restore
 This week can only be edited until the end of Wednesday 24th February 2021.

SPEN 01

Dynamic Power 3000 kW Min. Event Dur. 30 min Max. Event Dur. 240 min Max. Weekly Dur. min

← Week beginning 1st March 2021

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1st March	2nd March	3rd March	4th March	5th March	6th March	7th March

Alternatively, to make any week editable, you can use the "test Mode". Turn on the test mode in the top left and reduce the date until the week becomes editable. This function is only available in UAT and is present to simplify testing.

Test Mode Simulated Date 22/02/2021 Time 15:36 << Monday Thursday am pm >>

Select a programme in the top left (restore/dynamic/secure). Each zone will only have a maximum of two programmes to choose from. 'Restore' is available in all zones, and then either 'Dynamic' or 'Secure' as they are mutually exclusive.

Dynamic Restore

Test Mode Simulated Date 22/02/2021 Time 15:36 << Monday Thursday am pm >>

Availability Meterable Units API Testing API Definition Participant 3 | Logout

Sandbox Dynamic Dynamic Restore
 This week can only be edited until the end of Wednesday 24th February 2021.

SPEN 01

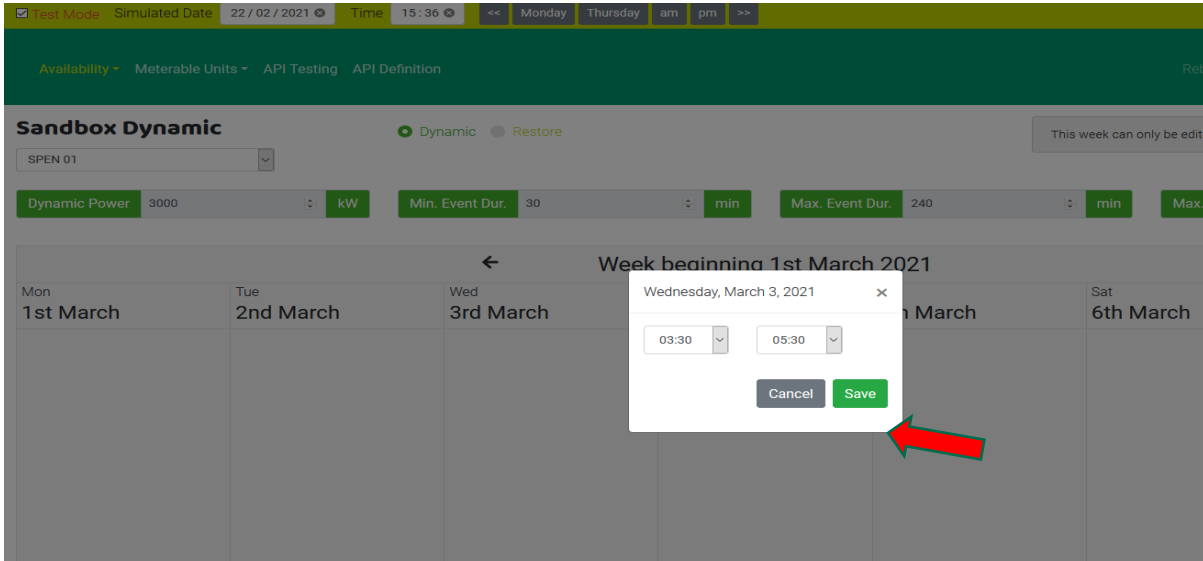
Dynamic Power 3000 kW Min. Event Dur. 30 min Max. Event Dur. 240 min Max. Weekly Dur. min

← Week beginning 1st March 2021

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1st March	2nd March	3rd March	4th March	5th March	6th March	7th March

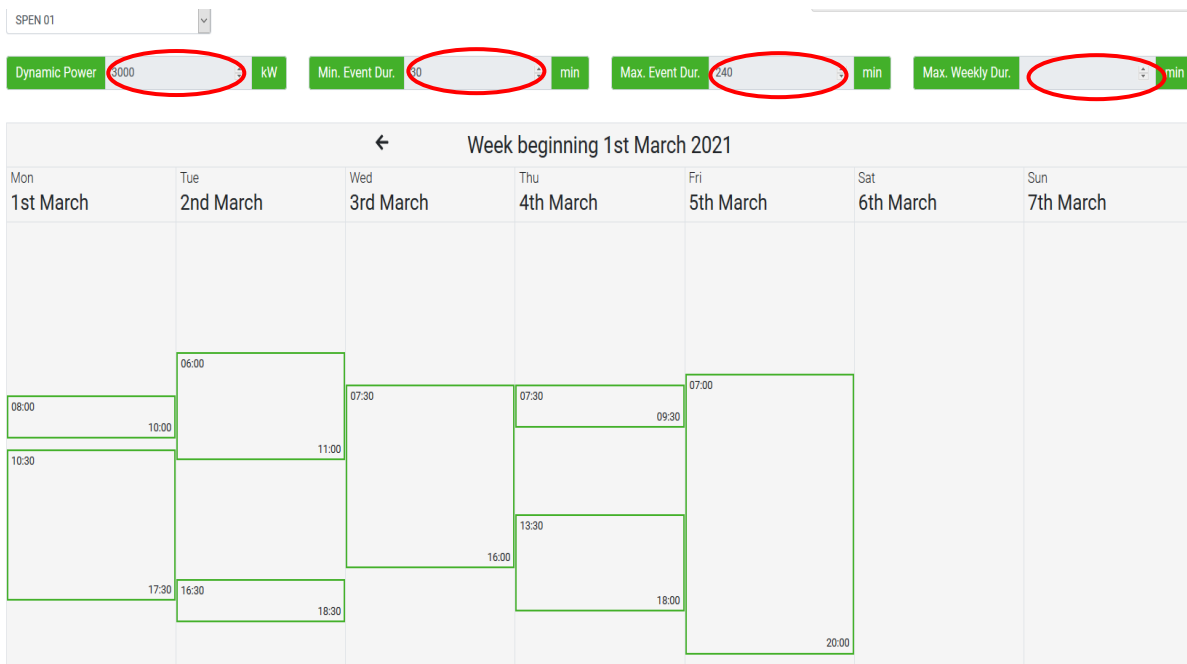
Click somewhere (under the day you prefer) in the calendar to create a declaration on a day.

Complete the form the add a declaration (press save at the end). Please make a declaration longer than 2 hours for the purpose of this test.

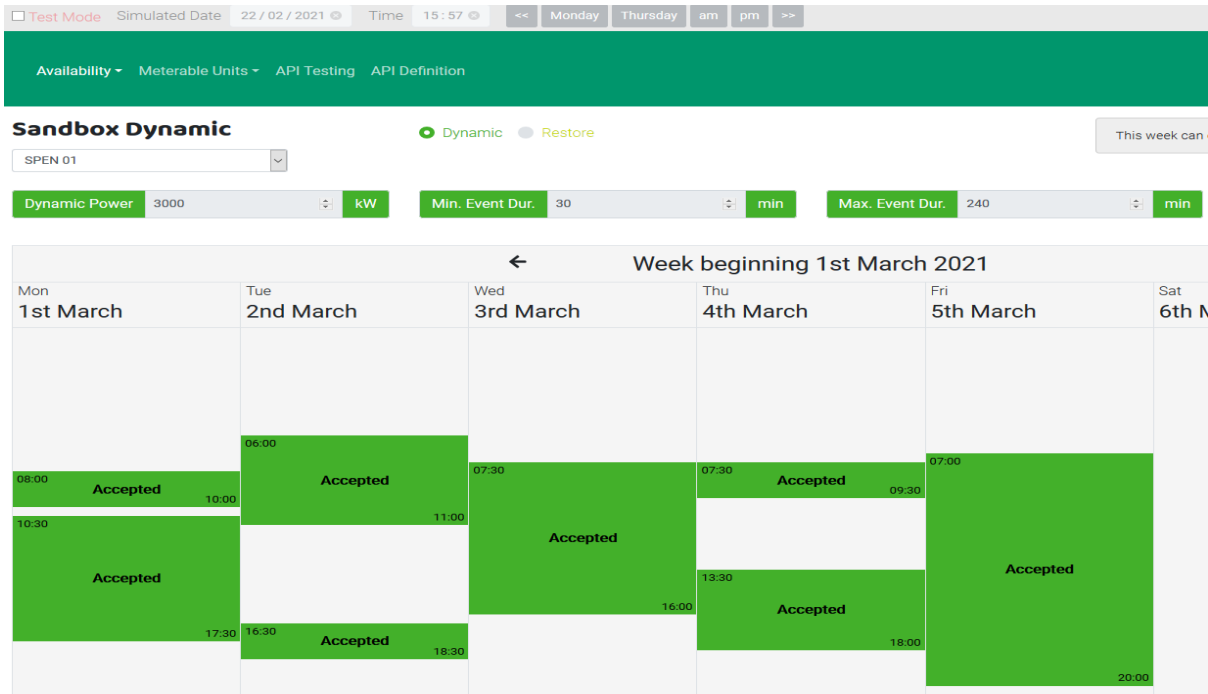


The declaration should display as an empty block, circled in blue below. The declaration will be unsuccessful if the declared capacity is 0 W. Declared windows can be edited or deleted simply by clicking on them again.

Continue adding windows until a full week of simulated declarations has been created. Set weekly values. Please note that if you wish to make a declaration the power value (kW) needs to show a positive value. If left at zero, no declaration will be submitted. The remaining weekly values are provided for the participant to protect processes, assets or fuel reserves to ensure that DSR service parameters stay within a range that is acceptable.



This is the limit of what a Participant can achieve with ‘self-testing’ as they are unable to carry out the weekly acceptance that will be done by Flexible Power and SPEN’s Console Operators on a Thursday morning. We have however shown a sample screen below of what accepted windows appear like to help familiarise participants with the formatting.



4. Sites and Baselines

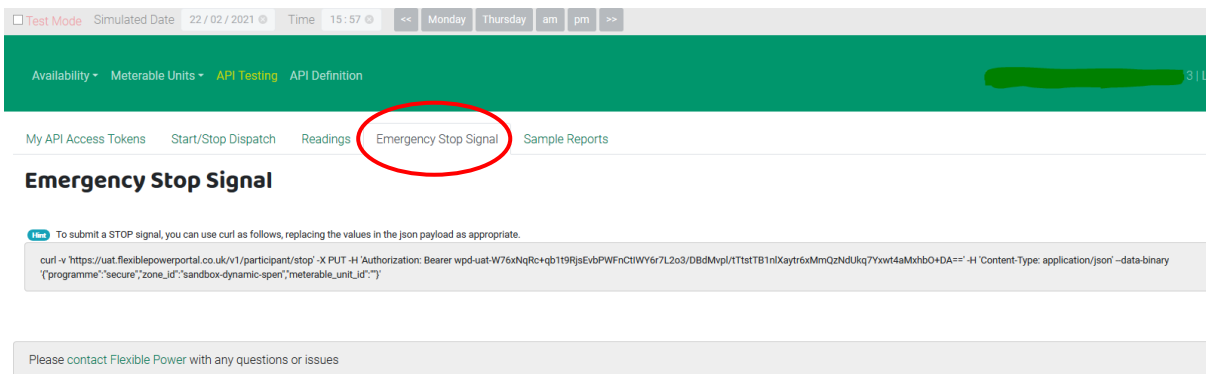
After testing has been completed and participants are set up in the full Production environment they will have access to all the zones in which they wish to declare capacity. For each zone a single declaration is required, but this can consist of multiple assets and sites for which a single baseline will be used to measure the delivery during DSR events. When first setting up a zone it is necessary for participants to state their own estimated baseline which will be used for the first month of operation. During the first month, Flexible Power will collect the metering data provided for that zone in order to automatically calculate and update the monthly baseline thereafter.

Participants are required to provide details relating to all the sites that are incorporated into the single minute by minute metering signal that is sent to Flexible Power. It is necessary to set up a site in UAT testing. To do so you first need to navigate to the ‘Availability’ page in the ‘Sandbox’ zone.

2. Emergency Stop by Participants:

An optional signal is provided for participants that is not mandatory in order to provide Flexible Power with DSR capacity. It is provided as a facility to participants who would appreciate the capability to ensure sites can rapidly 'opt out' in the event of an emergency. This is not intended to be used as a regularly accessed facility to decide whether or not to deliver DSR based on commercial outcomes or convenience. It has been provided so that in the event of unexpected events occurring during an accepted availability window or armed period there is a single point control where a participant can cease an event or prevent a dispatch which could otherwise have a negative impact on their core activities.

Participants can issue an emergency stop using the template curl command in <https://uat.flexiblepower.co.uk/testing> 'Emergency Stop Signal' tab for the programme secure and the zone that the secure declaration was made in. As this signal is sent via the API it is entirely up to a Participant as to what form of trigger will



The screenshot shows a web interface for testing. At the top, there is a navigation bar with tabs: 'My API Access Tokens', 'Start/Stop Dispatch', 'Readings', 'Emergency Stop Signal' (which is circled in red), and 'Sample Reports'. Below the navigation bar, the page title is 'Emergency Stop Signal'. A blue information box contains the text: 'To submit a STOP signal, you can use curl as follows, replacing the values in the json payload as appropriate.' Below this, a curl command is provided: `curl -v 'https://uat.flexiblepowerportal.co.uk/v1/participant/stop' -X PUT -H 'Authorization: Bearer wpd-uat-W76xNqRc+qb119RjsEbvPWFncIIWY6r7L2o3/DBdMvpU/TTst1B1nXaytr6xMmQzNdUkq7Yxvt4aMxb0+DA=-' -H 'Content-Type: application/json' -data-binary '{"programme":"secure","zone_id":"sandbox-dynamic-spen","meterable_unit_id":""}'`. At the bottom of the page, there is a grey box with the text: 'Please contact Flexible Power with any questions or issues'.

initiate the signal and from what type of device. When the signal is received, Flexible Power will record that time as the end of expected delivery for that day is during a DSR event and withdraw availability for the issue of any events in that zone. This will be automatically reset for the following day, so if a Participant's issues at site can't be resolved they would be expected to contact Flexible Power to request a longer period of 'opt-out'. It does however provide the Participant time to prioritise their resources to address and assess any issues without the pressure of having to try and contact Flexible Power.

3. Reports

The layout of UAT environment is the same as that in Production, but although it is possible to view the 'Reports' page by clicking on the appropriate tab in the navigation bar, it is not possible to provide any reports as these will be created dynamically, drawing on metering data contained in the vault.

In order that participants can familiarise themselves with the format of the reporting there are sample reports that have been created and hosted in the API testing section

Event Earnings report

Test Mode Simulated Date 22/02/2021 Time 15:57 << Monday Thursday am pm >>

Availability Meterable Units **API Testing** API Definition

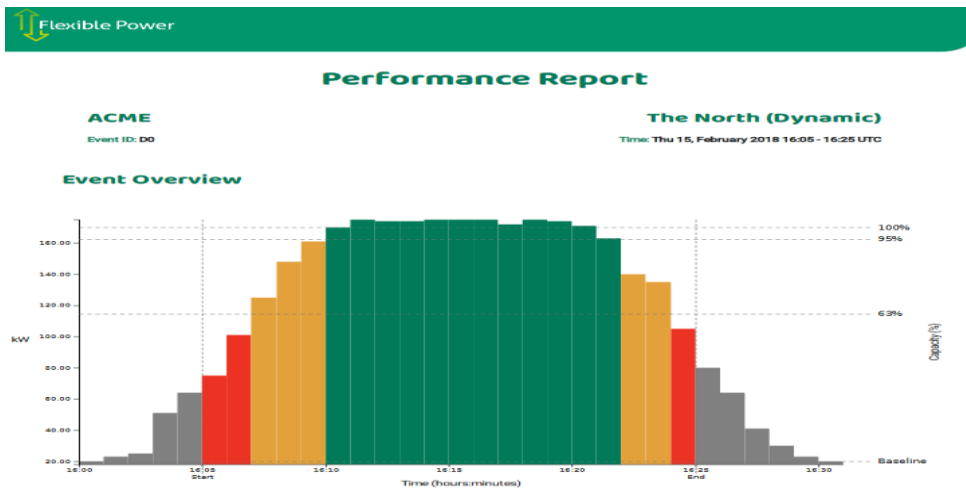
My API Access Tokens Start/Stop Dispatch Readings Emergency Stop Signal **Sample Reports**

Sample Reports

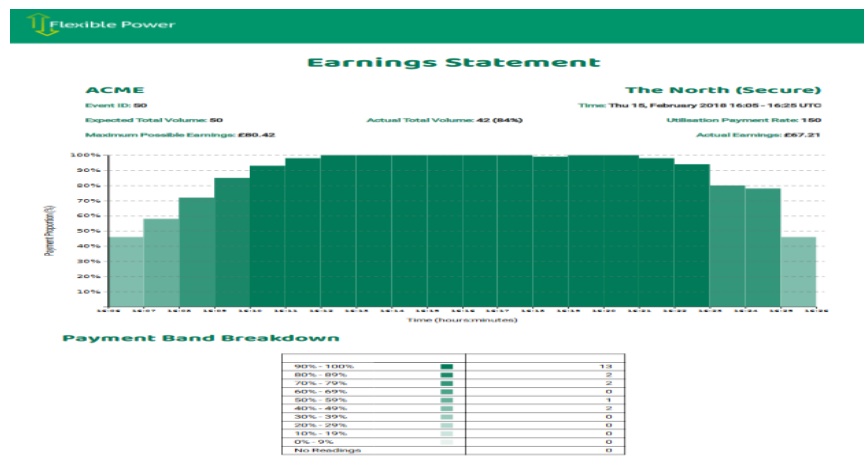
- Performance
- Earnings
- Invoice

Please contact Flexible Power with any questions or issues

Event Performance Report



Event Earning Report



Monthly Self Billing Invoice



Invoice

ACME
 1 The Street
 A Town
 A Region
 AB1 3CD
 United Kingdom

To: London Power Distribution
 10 Downing Street
 London
 SW1A 2AA
 UK
 VAT: GB999 9999 73

Invoice Number: ACM1-NRTH-2018-02
 Date: July 1st, 2020
 Purchase Order Number: P123456
 CMZ Name: north
 Billing Period: May 2020
 Version: 2018-02-12T12:00:00Z
 Payee Sort Code: 11-22-33
 Payee Account Number: 12345678
 Payee VAT Number: 123456789

Event Summary

Programme	Event Id	Dispatch Group	Date	Volume Delivered (%)	Payment (£)
Secure	S0		15 Feb, 2018	60	67.21
Restore	S1	Dispatch Group 1	20 Feb, 2018	100	2.56
Subtotal					69.77

Average Volume Delivered

Programme	Average Volume Delivered (%)
Secure	60
Restore	99

Availability / Arming Summary

Programme	Week Commencing	Dispatch Group	Total Availability / Arming Window	Zone Rate	Reconciliation %	Payment (£)
Secure	2018-02-12		1.0	110.00 £/h	100	55.00
Secure	2018-02-19		2.0	222.00 £/h	50	222.00
Secure	2018-02-19	Dispatch Group 1	3.0	333.00 £/h	70	333.00
Subtotal						610.00
Reduction						-257.00
TOTAL						353.00