# national**gridESO**

# Wider Access and TERRE Questions & Answers

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## This document

The purpose of this document is to provide support for navigating processes, created to facilitate Wider Access (WA) for participation in:

- GB Balancing Mechanism (BM)
- European Replacement Reserve (RR) market being created by the Trans-European Replacement Reserve Exchange (TERRE) industry project



**Definitions** >> Contents

#### **Aggregator**

A Data Aggregator (DA) sums up volumes – Annualised Advance (AA) or Estimated Actual Consumption (EAC) for each supplier – and sends this information into central systems

#### API

Application Programming Interface

#### BM

Balancing Mechanism – a suite of systems which facilitate the GB electricity market

#### **BMU**

Balancing Mechanism Unit – a market participant which provides services to the BM

#### **BOA**

Bid Offer Acceptance – Instructions issued to Participants via the Electronic Despatch Logging system

#### **BSC**

Balancing and Settlement Code

#### **CUSC**

Connection and Use of System Code

#### DNO

**Distribution Network Operator** 

#### **EBGL**

Electricity Balancing Guideline – one of the new ENCs

#### EDI

Electronic Despatch and Logging

#### EDT

Electronic Data Transfer

#### **ELEXON**

Administers the BSC on behalf of the UK electricity industry – known as the BSC Company (BSCCo)

#### **ENC**

European Network Codes

#### **ENCC**

**Electricity National Control Centre** 

#### **FFR**

Firm Frequency Response

#### GC

Grid Code

#### Libra

New European platform for the RR market being created by the TERRE industry project

#### **NGESO**

National Grid Electricity System Operator

#### Ofgem

Office of Gas and Electricity
Markets – Government-appointed
regulator

#### **PAS**

Platform for Ancillary Services

#### RR

Replacement Reserve – a new European Market

#### **SBMU**

Secondary BMU – registered by a VLP to provide TERRE Balancing Services

#### SOGL

System Operator Guideline – one of the new ENCs

#### **STOR**

**Short-Term Operating Reserve** 

#### TERRE

Trans-European Replacement Reserve Exchange – industry project to establish the European RR market

#### **VLP**

Virtual Lead Party – registers SBMUs for the purposes of bidding into the European RR market

#### Wider Access

Removal of barriers for smaller providers to participe in the GB BM



Pre	-Qualification	>> Contents
1.	Where can I find information about becoming a Virtual Lead Party (VLP) and registering Secondary Balancing Mechanism Units (SBMUs)?	You can find information under the Meeting documents tab on the European Network Codes (ENC) page on our website (under the Codes tab).  You can also find slides and a Q&A document which were provided after a webinar on 15 January 2019.
2.	How long does the application process take?	The total time for development submission and approval of an application can be up to five months.  NGESO has an initial eight weeks to confirm that the first submission of an application contains all of the correct data.  NGESO then has up to three months to evaluate the application and confirm that the unit(s) meet the prequalification criteria.  If the application is incomplete, NGESO will request the missing information. The applicant then has another four weeks to submit the additional information. This would extend the process to up to six months.
3.	Is this the application process for accessing the BM for all market participant units (BMUs), or is it just the process for Virtual Lead Parties (VLPs?)	The application process is the same for all BMUs and VLPs.
4.	When can VLPs start registering?	Qualification by VLPs under the Balancing & Settlement Code (BSC) has been open since 28 Feb 2019.  Qualification for provision to the GB BM will be live from December 2019.  As new market participants, VLPs will also need to meet the requirements of the Connection and Use of System Code (CUSC). This will follow approval of modification CMP295 by Ofgem during 2019.
5.	If a single asset from an aggregated portfolio BMU is re-registered under another BMU, could the application still take up to six months?	Yes. This is known as a post-approval change in the EBGL.  The process and timescales are the same as for a new application.
6.	Do existing BMU assets need to register separately for participation in the Trans-European Replacement Reserve Exchange (TERRE)?	Existing BMUs will not need to re-register with ELEXON.  However, they will need to inform NGESO of their intention to participate in the TERRE market. They will need to log onto the Pre-Qualification portal and opt in to participate in the Replacement Reserve (RR) market.  This is similar to when an existing BMU signs a Framework Agreement for STOR, FFR, etc., where they provide information about their unit(s) such as location, capacity and fuel type.



Pre-Qualification		>> Contents	
7.	When a BMU becomes a VLP, do they participate in either the GB BM or TERRE, or both?	When registering to become a VLP, there will be the option to participate in either the GB BM or TERRE, or in both markets.  Where a VLP represents BMUs which produce more than 50 MW combined, the Grid Code (GC) requires that the VLP is an active participant in the BM once they have registered.	
8.	Is there the flexibility to have different technologies registered under one SBMU?	Yes, sub-units with different technology types are permitted to be registered as part of the same Secondary or Additional BMU.  It is the provider's responsibility to ensure that the dynamic data, along with data submitted as part of the Aggregator Impact Matrix (AIM), is complied with, regardless of the composition of the BMU.	
9.	What is being done to help guide entrants through the process?	This document has been provided in response to requests for clarification. It is intended to be part of the suite of documents to guide market participants through the process.  Additional information is available on the Balancing Mechanism Wider Access page of our website.  We have also added Balancing Services Guide to our website. This provides guidance on the different routes that are available for providing services to NGESO.  Finally, there is further guidance on becoming a Virtual Lead Party.	
10.	Does NGESO plan to speed up the registration timescales to allow allocation and re-allocation of flexible assets to happen more quickly across markets?	Currently for STOR and FFR, we have the appendix process which allows reallocation to take place with a few days notice.  The process will not be as brief for STOR and WA from December 2019 or for TERRE in 2020. This is because NGESO's downstream systems and ELEXON's systems need to be updated to reflect the new make-up of units. The exact timing of how long the reallocation process will take is being determined.	



Pre-Qualification >> Contents

11. What are the necessary steps for registration, and is WA still on track for December 2019?

Yes, WA will go live in December 2019. Under the System Operator Guideline (SOGL), the main steps for registration are:

- 1. Applicant creates an account on the <u>Pre-Qualification portal</u>
- Applicant creates and submits their application, including information on their company and asset(s)
- 3. From the date of submission, NGESO has up to eight weeks to review the application and, if applicable, share the information with the relevant DNOs
- 4. Also from the date of submission, NGESO then has up to a further three months to complete the registration of the unit(s) to allow them to participate in the selected market(s)

Registration involves entering unit information into systems, completing registration with ELEXON, finalising communication links (EDL / EDT) and operational metering.



# **Communication and Despatch**

>> Contents

1. Will a VLP be able to hold an Energy Account instead of a Virtual Balancing Account. What would the benefits be?

Under the BSC modification P344 arrangements, a party that is registered solely as a VLP will be allocated a Virtual Balancing Account.

A party cannot hold an Energy Account and a Virtual Balancing Account at the same time. The Energy Account will supersede the latter.

However, under the BSC, a party can have multiple roles. If a VLP wants to have an Energy Account, it can register an additional role, such as a Trading Party, through the BSC qualification process.

The trading party role has additional obligations and costs. For example, trading parties pay a higher base monthly fee. They also contribute to cost recovery for ELEXON through Funding Share calculation.

Will VLPs and SBMUs use Electronic Data Transfer (EDT) and Electronic Logging & Despatch (EDL)? VLPs will need to use EDT/EDL.

However, smaller individual BMUs will be able to participate using the new Wider Access API.

3. What are the timescales for the Platform for Ancillary Services (PAS) to go live? Will testing be required with the customer before go-live?

NGESO's PAS programme has delivered the Ancillary Services Despatch Platform (ASDP). This is already live and is despatching Fast Reserve Instructions for the Control Room.

Another release is planned for September 2019. This will enable the Control Room to despatch STOR instructions to non-BM service providers.

STOR is impacted by EBGL which takes effect at the end of 2019. A further release for adhering to that regulation will go live for that timescale.



API development		>> Contents
1.	How does a market participant obtain security credentials?	They need to request their Client ID and Client Secret from the WiderAccessAPI mailbox, once they are ready to store them securely.  A trusted third party Certificate Authority (CA) should provide services to distribute the Public Key and generate the Private Key.  NGESO does not recommend a specific CA. Market participants should satisfy themselves that their chosen CA has sufficient controls to administer grant, revoke and renewal processes in line with industry standards for SHA256-RSA-2048.  Market participants are responsible for keeping certificates secure.
2.	Is the market participant responsible for storing their Client ID and Client Secret?	Yes, NGESO will also store the market participant's Client ID and Client Secret in the Credential Store Framework (CSF) Key for Oracle. This contains the encrypted username and passwords to be used by the services.  This is an Oracle industry standard system process. It resides in the Oracle Web Service Manager security framework.
3.	Does NGESO have a recommendation on storage of Client ID and Client Secret?	Yes, NGESO recommends the same level of security used in the Oracle framework.  Market participants should store their Client ID and Secret on a credential store or in a vault. The APIs will need to retrieve the information from this store or vault in run time, and should only be retrieved then.  These credentials should never be stored outside of a store or vault. Neither should they be included in, for example, the application code or configuration file.
4.	How can a token be obtained in order to consume the APIs?	A token can be obtained by sending a POST request to the Identity Provider which includes the Client ID and Client Secret.  The process is described by the OAuth 2 authorisation protocol. A detailed description of the process has been included in the APIs specification, in the section titled OAuth 2 Tokens.
5.	Will an annual penetration test be necessary?	NGESO recommends that market participants conduct annual penetration testing, and satisfy themselves that their API is secure and compliant with Cyber Essentials.  NGESO can also provide a form for conducting a self-assessment. The market participant can use this to confirm to NGESO how they have done this.



API development		>> Contents
6.	Will data validation still stand for Electronic Data Transfer (EDT) and Electronic Despatch & Logging (EDL)?	Yes, the same business validation is still used in the Balancing Mechanism (BM).  The same Data and Communications document is applicable to both traditional lease lines and to the WA API. Only the means of communication is changing.  The API has security and light format validation of incoming messages.
7.	What is the testing certification process?	The certification part within the Pre-Qualification and Registration process covers the process of integrating, testing and certifying of the user's plant and apparatus to be used for EDT and EDL, and to provide operational metering.  1. Market participants self-certify to confirm that they meet the minimum technical parameters to participate in the electricity market  2. They then build the capability according to the specifications shared by NGESO  3. They then test their build with NGESO to prove that they are successfully integrated  Active BMUs can Bid and Offer volumes and prices to NGESO. Under the Grid Code, BM Units (BMUs) registered with NGESO must submit an accurate indication of its intended level of generation, in the form of a Physical Notification (PN) submitted via EDT. NGESO uses EDL to communicate acceptances to BMUs. EDL is also used by BMUs to submit short-term changes to Maximum Export Limit (MEL) and Maximum Import Limit (MIL), and for real-time dynamic parameter submissions.
8.	What is the timescale for the testing certification process before WA go-live?	There is a window until September 2019 where participants need to connect and test their APIs in order to go live as soon as NGESO does.
9.	Will the IT interface include the API and also operational data?	NGESO is working on ways to make it easier for parties to submit their data to us.  Two separate systems have been developed:  • Data Concentrator for submitting operational metering data  • Web Based API for submitting operational dynamic data such as PNs, Bids and Offers
10.	If we a market participant use the web-based API, do they also need to maintain EDT/EDL?	No, the API is an alternative mechanism to the EDT/EDL route, which has been designed to reduce some of the barriers to entry which exist in accessing the BM.  The API will be a complete equivalent and any capability that is provided through EDT/EDL will also be provided via the API. As both routes provide the same access, there is no need to have both the new API and traditional EDT/EDL.



AP	API development >> Contents		
11.	How will the API interface with the existing BM?	The API will interface with the BM in exactly the same way as the current EDT/EDL systems do.	
12.	How will use of the API affect despatch of units?	There will be no impact on the despatch of units.  This will continue to be on an economic and system security basis, and will be determined irrespective of the connection mechanism.	
13.	Are there any advantages to using the API in terms of dynamic data provision?	The only advantage of using the API as a connection mechanism to the BM is that, for some market participants, it may be simpler and more cost-effective to connect.	
14.	What about failure and redundancy requirements?	There are currently no requirements to provide a secondary fallback site. However, if a market participant wishes to provide one, this can be taken into account.	
15.	How is the API being rolled out internally to the Control Room?	The Control Room will see no difference between units which are communicating data through the API or via EDT/EDL.	



Op	perational Metering	>> Contents
1.	Will the operational metering requirements also be relaxed as part of Wider Access?	NGESO is considering the various levels of communication standards required based on SBMU size. We will provide more information in due course. In the meantime, if you have any questions please send them to commercial.operation@nationalgrideso.com.
2.	The new data concentrator is for smaller providers generating less than 100MW. Is that threshold measured at BMU level or at control point level?	The threshold is at the control point level.  NGESO is considering the various levels of communication standards required based on SBMU size and will provide more information soon.
3.	What's an edge router?	This is referred to in our Operational Metering for Small (<100MW) BM Participants. It is simply a term to represent the point of internet connection.



Wider Access		>> Contents	
1.	When will Wider Access go-live?	Registration for Wider Access in currently on track to go live December 2019.	
2.	How should the different dynamics of each sub-unit with potentially different technologies be represented?	The aggregation of different sub-units should be reflected with the existing set of submission parameters available within the Balancing Mechanism. These parameters are described within the Grid Code.	



TE	RRE	>> Contents	
1.	When will TERRE go-live?	NGESO has submitted a derogation request to delay the go-live of TERRE, from Dec 2019 to June 2020. We await Ofgem's decision.	
		For more information on the reasons for this derogation request, please see our open letter to the industry.	
2.	Will TERRE require the participant to hold interconnector capacity in order to be considered for the delivery of services?	No, interconnector capacity will be included as part of the TERRE product when a provider is successful in a TERRE auction. This is known as an implicit auction.	
3.	Do the current delivery timelines mean that VLPs will be unable to complete registration until November or December 2019. Will delays to any part of the process mean that VLPs will be unable to participate from golive?	Market participant are able to register as VLPs under the BSC with ELEXON in parallel with creating and submitting their pre-qualification application to NGESO.	
		However, one of the prerequisites of pre-qualifying is acceding to the CUSC, which is currently not available for VLPs. This is awaiting approval from Ofgem of CMP295. A decision is due in October 2019.	
		While the codes state that NGESO has up to five months to complete a market participant's registration process, we expect it to be completed in a shorter amount of time.	
4.	Timescales for registration are lengthy. What is NGESO doing to improve the speed for providers?	Currently, we update our Control Room systems every two months. This involves a lead time to build and check the new data.	
		There is a risk that, when a registration is completed within five months, this may not fall within the BM update window.	
		We are investigating whether Control Room updates can be implemented more frequently, and therefore ensure that we registrations can be completed in a more timely manner.	
5.	Does conducting end-to-end testing for TERRE but not for Wider Access create any risk for providers?	The end-to-end testing associated with the TERRE project is about ensuring that the new bid formats are working correctly as well as testing connectivity with the new European LIBRA platform.	
		Wider Access will be facilitated mostly using existing systems. As long as the web-based API is tested and is successfully working, then there is no risk for providers.	