

# Getting ready for TERRE Questions & Answers

From webinars 7 & 16 April 2020

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#### **Go-Live & timelines**

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- Do we expect to see further delays to the Go-Live date, due to the impact on the industry of Coronavirus (COVID-19)? Either because we in the UK are not ready, RTE in France won't be ready, or because a decision is made that it is not a good time to make such a large change impacting several countries?
  - At the mid-April Joint European Stakeholder Group (JESG) meeting, NGESO seemed to say that it was actively considering a delay to TERRE Go-Live because of COVID-19. Is this correct and, if so, can you say any more about this now?

During these unprecedented times, NGESO remains focused on delivering our core operational role. We are continually reviewing all programmes, to safeguard our people and to avoid interruption to our core operational processes.

#### Announcement by NGESO on 24 April

GB implementation of access to the European Replacement Reserve (RR) market is delayed until the **end of October at the earliest**.

- 2. Will NGESO's use of TERRE be delayed until RTE goes live, or will TERRE launch in GB regardless of RTE?
- The French TSO, Réseau de Transport d'Électricité (RTE), has confirmed that they are also aiming for Go-Live in October. NGESO is therefore aiming for a Go-Live which will be coupled to RTE's Go-Live.

An earlier, decoupled, GB-only Go-Live was an option, but we are not planning for this.

- 3. What is the dependency on RTE's readiness to go in TERRE? Do you have a view on RTE's progress?
- RTE, has already taken the decision to delay implementation. NGESO cannot deploy access to the European RR market using the Libra platform until it is also deployed in France.

The dependency is the ability to Go-Live with interconnectors. We will share more information on RTE's readiness when we have that.





| 4. | How many GW of readiness will you need for Go-<br>Live?  | There is no limit at the moment. NGESO will provide further details.   |
|----|--|--|
| 5. | Is it possible to understand what is within each drop? Specifically drop three as this is showing as 'tbc' and spans both June and July. | The Drops represent internal NGESO system changes. Drops 1 & 2 will deliver the functionalities required for TERRE Go-Live. The final drop is to enable automation of some processes within NGESO systems. |
| 6. | What is the dependency, if any, on Drop 3 to testing, Cut-over and Dress Rehearsal?  | There is no dependency of Drop 3 on testing or dress rehearsal to meet the Go-Live date. Drop 3 is required to deliver some automation capabilities within NGESO systems post-Go-Live.                     |





## **TERRE and the Balancing Mechanism (BM)**

>> Contents

| 1. | Systems and processes are being tested with a Go-<br>Live of 30 June in mind. Apart from this, you are<br>saying there is no difference to participating in<br>TERRE versus BM, as prices would be 'pay-as-bid'<br>for both. Is this right? | No, TERRE bid prices will only be 'pay-as-bid' when using TFRs or desired flow ranges, which will not be used at Go-Live. BM will use pay-as-bid prices, whereas TERRE will use 'pay as cleared' prices. Go-Live is now expected to be in October at the earliest. |
|----|---|--|
| 2. | Is TERRE the primary despatch option for the Control Room, and BM a secondary option for despatch?  | BM will continue to be the primary despatch option. TERRE will be a secondary option, as it is a Replacement Reserve.  |
| 3. | Will TERRE be more expensive than BM? If someone can participate in TERRE, can they participate in the BM?  | Yes, TERRE will be more expensive than BM.  If a provider can participate in TERRE, then there is an option for them to participate in BM. However, it is not mandated to submit offers in BM if operating in TERRE.   |





| Te | sting and data  | >> Contents  |  |
|----|---|--|--|
| 1. | How will the Balancing Mechanism Report Service (BMRS) be tested with market participants?  | BMRS will be tested with participants after bilateral testing between NGESO and ELEXON is completed. Initially, ELEXON will issue sample data to enable participants to review the formats. Once the test environment is ready, a link will be provided for participants to subscribe, and instructions will be provided.  The test BMRS system will provide data to market participants in the same way the live system does currently.   |  |
| 2. | Will the data be made available through TIBCO?  | The data in the live system will be published through TIBCO and data push. ELEXON intends to test these channels as well during testing.  If you would like to be involved in the testing of how participants consume data, please let us know.  |  |
| 3. | How will TIBCO/data push be presented to market participants?   | It will be presented in the same way; the mechanics are the same, there are just new data messages.  Please see the ELEXON user guide on BMRS API data push. The TIBCO formats are in the IDD Part 1.  |  |
| 4. | Will TERRE activations be published close to real time via an ELEXON Application Programming Interface (API) and Push Service, similar to how BM bid-offer-acceptances (BOAs) are published today?        | TERRE activations will be published as close to real-<br>time as possible. ELEXON has the same obligations<br>to publish within 15 minutes as it has for BM data,<br>although typically it is published faster than this.  |  |
| 5. | Have you done any modelling on the capacity and despatch volumes you expect to see in TERRE? Being decoupled, does that mean that any TERRE utilisation will in effect replace volumes despatched via BM? | NGESO has conducted some analysis on expected volumes in TERRE, including estimates for worst/medium/high-case turnout scenarios.  Being decoupled could mean that any TERRE utilisation will in effect replace volumes despatched via BM. TERRE will be used as a complementary market to BM, not as a primary market.  |  |
| 6. | Will there be further testing slots available after this tranche of testing?  | NGESO: Testing will be conducted on an ongoing basis when market participants plan to join TERRE after Go-Live. Meanwhile, to partake in the initial phases of testing, please send an email to express your interest to be included in our test partner group; your ability to participate depends on whether your systems are set up to the correct specifications and if the timings align.  ELEXON: No further TERRE testing is planned for ELEXON's interfaces with industry. After Go-Live, RR data will be available from BMRS and will also be included in Settlement Administration Agent (SAA) reports. Any new market participants who are going through the market entry process with us will be able to receive dummy SAA files as part of their qualification testing. |  |





7. How can market participants access test BMRS TERRE related data such as RR BOAs, etc., to aid preparations and adjust internal tools for Go-Live?

This will be provided as part of the testing process. During the early stages of testing, ELEXON will provide sample TERRE files, once they have validated them in their bilateral testing with NGESO. During the later phase of testing, ELEXON will be able to include connectivity testing, such as subscribing to APIs.





| Interconnectors >>> Contents |  |   |
|------------------------------|--|---|
| 1.                           | Is testing with interconnectors included in the test scope?  | NGESO are currently re-evaluating the scope regarding what will be tested with interconnectors. This will be confirmed with further information soon.   |
| 2.                           | Can you use Interconnector Units for TERRE?  | Interconnector units cannot be despatched or issue instructions. They are therefore unable to be used in the BM.  |
| 3.                           | Will NGESO limit interconnector capacities in TERRE? If so, by how much?   | NGESO are aiming to make best use of interconnector capacity. Any limits to capacity will be determined by operational reasons.   |
| 4.                           | Will the interconnector capacities offered into TERRE be published to TERRE participants? (Ideally before TERRE bid submissions) | Yes, the ETC values will be published, but this will be post-event, i.e. after the auction period. This information will be available on the transparency platform, and the remaining ETC values will be published on BMRS. |
| 5.                           | Have interconnector costs been taken into account when processing the bids?  | Interconnector costs are not included in the algorithm. We will be taking into account the loss factor but not costs.   |





| Bids >> Content |   |   |
|-----------------|---|---|
| 1.              | How far in advance can RR bids be submitted? Is it as for other Electronic Data Transfer (EDT) submissions i.e. ~ 5 days in advance? Or is it hour by hour?   | Five days in advance.   |
| 2.              | Can a bid be both 'linked' and 'multiple' at the same time?   | Yes. If the bid type is multiple, use the same bid ID to link the parts.  |
| 3.              | Can bids be exclusive across times (X and Y bids)?  | Yes, bids can be exclusive.   |
| 4.              | Is the minimum run time 15 minutes?   | Yes.  |
| 5.              | Will formatting be exactly the same? The same as BM bid-offer-acceptances?  | The format will be the same, other than BOA instructions including an RR flag to identify it is an RR instruction.  |
| 6.              | Relating to gate closures for the auction is this going to be 60 minutes ahead of the auction period for Go-Live, and then change to 55 minutes? When is the change to 55 minutes likely to happen?   | This is still being debated with European TSOs and our steering group. There is no fixed date agreed yet regarding when 55 minutes will be implemented. However, participants will be informed well in advance when the date is confirmed.  |
| 7.              | If BMUs submit bids at Gate Closure, and then RR bids 5 minutes later, and both are accepted, which action then has priority? BM or RR?   | Submissions are accepted separately into BM and RR. However, in relation to BOA instructions issued by NGESO, BM actions will have priority; BM bid/offers are issued prior to the RR instruction. From a settlement perspective, RR will have priority. In RR, settlement is for the whole amount. |
| 8.              | What are the implications of changing a Physical Notification (PN) after submitting a TERRE bid, if the PN means you can no longer deliver the TERRE instruction? For example, with an auction period covering 10:00-11:00, the bids are sent at 09:00, but PNs can still be changed for the period 10:30-11:00 up until 09:30. | If the PN changes in between, this will change the shape of the BOA.  ELEXON will settle based upon the notifications they receive. Changes of the PN by the participant won't have an impact on settlement, as delivery is measured from gate closure when it is received.                         |
| 9.              | Can exclusive bids be a mix of 'divisible' and 'indivisible' for the same period?   | Yes, bids can be divisible and indivisible for the same period.   |
| 10.             | Do linked bids have to all be in the same direction? Will this prevent storage from linking a charge and discharge in different periods?  | Linked bids in the same direction is enforced. You can have two bids linked in one direction for one delivery period, and two bids linked in the other direction for the other delivery period.   |
| 11.             | If an RR Bid fails Level 2 Validation (from the Libra platform), is there a way to access these rejection reasons?  | Yes, bids that are rejected by the Libra platform will be added to the MOL file that will be submitted to ELEXON for each auction period. The MOL file (XML format) will include the reason for the rejection and will be published in the BMRS portal.   |
| 12.             | Is there an online guide available with details of submission?  | Yes, the EDT specification on the website provides details about the RR bid data. Also, the data validation and rules document will be published on our website once initial testing has been completed.  |





| 13. | Is there are timeline for a more modern API for EDT/EDL (e.g. WebServices/REST API?)   | There is an API available, using web services for data submission. The API is available for market participants to be used and tested. Participants will need to go through testing and on-boarding process to be able to use API process (starts with prequalification).  |
|-----|--|--|
| 14. | What does the minimum quantity refer to in the case of a fully divisible bid?  | Divisible bids are set to true, and can go to the minimum quantity.  |
| 15. | How does the acceptance of an RR bid interact with BM BOAs? Can the RR bid submission contradict dynamic data for BM?  | Documentation has been published on the <a href="ELEXON website">ELEXON website</a> . An RR schedule document is also available outlining how RR instructions interact with BM BOAs. RR bid submissions should not contradict BM dynamic data.   |
| 16. | NGESO's 'Wider Access' API is only open to secondary BMU, which limits the ability to use it for some participants. When will this be made available to Primary BMU? | Currently, this facility is available for units with a capacity of up to 100MW.  |
| 17. | Do current BM units automatically qualify or will they have to register separately as well?  | The units currently in BM still have to pre-qualify, but they do not need to undertake the same extensive process as new units.  You can email to NGESO the list of current units you would like to pre-qualify. This will take a number of weeks, rather than up to a permitted five months to be completed, subject to EDT changes.  |
| 18. | Will the Wider Access API allow for bids of up to 300MW or more? Will we be able to use multiple assets of up to 300 MW each?  | The API does not have any MW restrictions. The limit applies to the size of the BMU (Primary or Secondary) that is recommended for use of the API. At present, this route is limited to a combination of units with capacity totalling up to 100MW. A proposed total limit of 300MW is being reviewed. However, NGESO expects to maintain the 100 MW threshold for any single Market Participant asset. NGESO has previously indicated its intention to change the capacity limits for use of the new Wider Access API and Operational Metering provision for small BMUs. To make these changes formal, NGESO will update the Communication Standards and will submit a proposal for consultation by the Grid Code Panel. This will document how the standard will be applied, according to thresholds on size of primary and secondary BM units and sites. NGESO anticipates this process of consultation and approval will be completed by September 2020. There are also lower limits. Combined assets need to total at least 1MW. ELEXON's settlement metering requires that each sub-component of a Secondary BMU needs to be at least 100KW. |





| 19. | Is RR compatible with the other NGESO Reserve Services?   | Yes, RR is compatible with other NGESO Reserve Services. There are certain rules applied in the TERRE process. If you are participating in another ancillary service with NGESO, such as Short-Term Operating Reserve (STOR), offers made during the STOR window will be restricted to ensure energy for TERRE is specific and not used for another market. |
|-----|---|---|
| 20. | Will the RR BOA profile be within the 15 minute block, or will the ramps overlap the neighbouring blocks? | This is addressed in P344 documentation and ELEXON TERRE documents. The standard expectation for the profile is 5 minutes ramping, 5 minutes flat and 5 minutes down. The ramping times are subject to the ramp rates for individual units. Further details are found in the documentation.   |





Settlement >> Contents 1. What happens to the TERRE volume that gets This is a niche example. The RR volumes will need to be clarified, even if the RR instructions are on top ignored if it overlaps with an RR BOA or RR Instruction (RRI)? What if that TERRE instruction is of the BOA. Settlement will create an RR schedule at set the clearing price? gate closure to cut it into. TERRE volumes will take precedent in this scenario, and any volumes outside will be settled at BOA price. 2. If a unit is instructed downwards through TERRE and This will depend where the PN was. If a unit is bid then upwards through a subsequent BOA, would that downwards through TERRE, NG will have the option BOA price be at the offer price for BO pair -1 or +1? to make an offer, and then the offer will fall into the appropriate bands and settled as expected. Please contact ELEXON for further details regarding this example, and please provide explanatory diagrams. 3. Are you able to make the code for calculating the RR At present, there are no plans for the code to be Schedule publicly available? made publicly available. The methodology, illustrating a process map of how RR schedules are derived, has been published. 4. What is the thought process behind the decision to NGESO didn't want to create additional barriers to not incentivise the standard "shape" of the TERRE entry to stop other participants entering the market product? with different ramp times. The functionality exists, so this can be reviewed at a later date if required. These RR-related data items can potentially be 5. Will the volumes that go into the calculation of Net Imbalance Volume (NIV) be the RR activation entered into Imbalance Price and NIV calculations: volume, or the RR schedule that was instructed To represent the **sum of RR Activations** for GB (including the additional volume)? Total Volume of GB Need Met To represent the sum of additional volumes created to fulfil RR Activations within GB o RR aggregated unpriced **system-buy** action o RR aggregated unpriced system-sell action Will the deviated volume outside delivered RR block 6. Yes, BMU will be expected to follow the profile as be subject to GB's imbalance price? instructed by National Grid. However, the BMU will be expected to deliver volumes as per the RR Schedule. Note, in the majority of cases, the RR Instruction from NGESO and the RR Schedule derived by Settlement will be the same. Difference will only occur as an exception (e.g. the BMU cannot physically deliver a RR Activation). If volumes deviate from the RR Schedule, this is classed as non-delivery. To incentivise BMU to follow the instructed profiles, deviation from the profile will be exposed to the imbalance price (note that this is consistent with BM non-delivery).





7. Will there be two entries into ELEXON's non-delivery calculation, depending upon if the non-delivery happens on fulfilling the GB need or non-GB need?

Yes. For non-delivery, ELEXON takes the derived instructed shape and overlay the standard product shape. We can then work out what is "paid" RR Activation volume and what is the "unpaid" additional volumes.

We can then identify what was not delivered. Additional volumes enter the calculation at £0, while the product shape enters the calculation at the TERRE clearing price. Effectively, there is a 'needs met' portion and additional volume portion. These are just new inputs into the original calculations.

8. If the unit's MEL prevents a full RR trade from being despatched, will it be partially despatched or cancelled?

Yes, RR instructions will be partially despatched and capped by MEL, and will not be cancelled.

From a settlement perspective, the BMU is paid for the full activation. However, the RR schedule will look at the BMU dynamic data and see it cannot physically be delivered. Therefore, it will use a default standard set of instructions to fulfil the full RR activation, which will result in non-delivery volumes for the BMU.

The RR schedule methodology document on the ELEXON website provides more technical details.





Other >> Contents 1. Would the pre-qualification process be different for The pre-qualification process is slightly different parties currently active in the BM? dependent on whether the participant is a Virtual Lead Party (VLP) or has existing BM units. For existing BM units, they can email Commercial.operation@nationalgrideso.com, who can make the necessary changes and then inform the participant when the qualification is completed. 2. Is there a detailed interface specification available for The interface specifications are available on the Libra, so that at least participants may understand: NGESO website. Documentation about the rules regarding file submissions and data validations for a) Rules, and the are provided in the EDT specification. b) Updates processes? Will Libra or NGESO record the source of RR power NGESO captures the fuel type in Pre-Qualification. procured through TERRE - i.e. storage, CCGT, If NGESO buys RR through TERRE from a GB diesel - to understand associated carbon / emissions provider, their metered output will be included in the better? existing actual 'generation by fuel type' report, under whatever fuel type category they have registered with NGESO. NGESO also produces a report in MODIS that provides information on fuel types used. MODIS (ETR-EFS) report 16.1b (AGPT) sends the above information. All TSOs involved in TERRE will be producing this ETR report which is publicly available. Where the RR is delivered by a continental provider, it would just be included as part of the net interconnector transfer. If it's a net import, this is included in the BM 'generation fuel type' report, but not in the ETR-EFS ENTSO-e report. The MODIS ETR-EFS AGPT report does not include the interconnector data. The separate report from BM on generation by fuel type does include the interconnector import categories. ELEXON receives this data from NGESO, per settlement period, as an aggregated generation value by fuel type. This is required for the European Transparency Regulation platform. ELEXON publishes generation by Fuel Type, but will not identify TERRE volume by fuel type as such. 4 What are the Web Interfaces from BM to the market You will receive information exchanges, such as data participant used for? and BOA instructions, via the web interfaces. Market participants have the option to submit via the web API instead of EDT.