Effective Date: 01 April 30 August 2021

Version Number: 4920.0

Published in accordance with Standard Condition C16 of National Grid Electricity System Operator Transmission Licence

# **Version Control**

20.03.01	1.0	Initial version				
21.09.01	1.1	Revision to initial version to incorporate new intentions on the procurement of Fast Reserve				
01.05.02	2.0	Annual revision incorporating updates to information provision and Licence Condition references				
01.05.03	3.0	Revision following annual review				
28.11.03	3.1	Revision to incorporate introduction of Maximum Generation Service, POT, and the development of demand side services				
01.05.04	4.0	Revision following annual review				
04.10.04	4.1	Revision to incorporate changes as a result of CAP071: the development of Maximum Generation Service				
01.01.05	4.2	Revision to incorporate changes relating to BETTA				
15.07.05	4.3	Revision to incorporate changes as a result of CAP076: Treatment of System to Generating Intertripping Schemes				
02.09.05	5.0	Revision to incorporate changes relating to the provision of warming data; and the informal annual review				
06.04.06	6.0	Revision following annual review				
01.11.06	7.0	Revision to incorporate the replacement of the Warming & Hot Standby service with BM Start Up service				
01.04.07	8.0	Revision to incorporate Short Term Operating Reserve (STOR)				

01.04.09	9.0	Revision following annual review			
01.04.11	10.0	Revision following annual review			
01.04.13	11.0	Revision following annual review			
01.01.14	12.0	Revision to incorporate changes for Supplemental Balancing Reserve and Demand Side Balancing Reserve			
01.04.14	13.0	Revision to incorporate Commercial Frequency Management as part of the annual review			
01.04.16	14.0	Revision following annual review			
01.04.17	15.0	Revision to remove Demand Side Balancing Reserve and add Demand Turn Up			
1.04.18	16.0	Revision following annual review			
1.04.19	17.0	Revision following annual review			
11.05.20	18.0	Revision following annual review and additional consultation			
01.04.21	19.0	Revision following annual consultation			
30.08.21	20.0	Revision following NTC Consultation reviewing the commercial compensation methodology for interconnector capacity management			

The Guidelines have been developed in consultation with the Authority. The Guidelines may only be modified in accordance with the processes set out in Standard Condition C16 of the National Grid Electricity System Operator Transmission Licence. We will continuously monitor the validity of the Guidelines and intend, in discussion with the Authority, to periodically review the form of the Guidelines and, where appropriate, make such revisions as are necessary.

In the event that it is necessary to modify the Guidelines in advance of issuing the annual updated version of this document, then this will be done in accordance with Standard Condition C16.

The latest version of this document is available, together with the relevant change marked version (if any), electronically from our website:

https://www.nationalgrideso.com/balancing-services/c16-statements-and-consultations

Alternatively, a copy may be requested from:

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# **CONTENTS**

#### PART A Introduction

1. Purpose of Document

# PART B General Principles

- 1. Balancing Services
- 2. Procurement Principles
- 3. Taking Actions Outside the Balancing Mechanism

# PART C Balancing Services Required

- 1. Types of Balancing Services
- 2. Description of Commercial Ancillary Services
- 3. Demand Side Providers and Small Generators

#### PART D Procurement Mechanisms

- 1. Procurement Process
- 2. Procurement Communication Media
- 3. Procurement Summary

#### PART E Information Provision

- 1. General Provisions
- 2. Information Provision Contact
- 3. Information Provision Detail
- 4. Volumes of Balancing Services
- 5. Information Provision Summary
- 6. Future Developments

#### PART A: INTRODUCTION

#### 1. Purpose of Document

This document sets out the Procurement Guidelines ("the Guidelines") which National Grid Electricity System Operator Limited (NGESO) is required to establish in accordance with Standard Condition C16 of NGESO's Transmission Licence. The purpose of these Guidelines is to set out the kinds of Balancing Services which we may be interested in purchasing, together with the mechanisms by which we envisage purchasing such Balancing Services within the next financial year.

The Guidelines are not prescriptive of every possible situation that we are likely to encounter, but rather represent a generic statement of the procurement principles we expect to follow.

The remainder of this document is structured in four parts. Part B sets out the broad definitions of Balancing Services, the general principles we expect to follow in procuring such services, the relationship between various Balancing Services and a description of actions that will be taken outside of the Balancing Mechanism (BM). Part C describes the types of Balancing Services we expect to procure and Part D sets out the procurement mechanisms we expect to utilise in procuring such Balancing Services. Part E contains historical Balancing Services volumes and describes other information we will provide to ensure that appropriate signals are available to market participants and other interested parties.

In the event that it is necessary to modify the Guidelines in advance of issuing the annual updated version of this document, then this will be done in accordance with Standard Condition C16 of the NGESO's Transmission Licence.

The Guidelines have been developed in consultation with the Authority and Industry Participants. The Guidelines may only be modified in accordance with the processes set out in Standard Condition C16 of NGESO's Transmission Licence. We will continuously monitor the validity of the Guidelines and intend, in discussion with the Authority, to periodically review the form of the Guidelines and, where appropriate, make such revisions as are necessary.

The Guidelines make reference to a number of definitions contained in the Grid Code and Balancing and Settlement Code. In the event that any of the relevant provisions in the Grid Code or Balancing and Settlement Code are amended, it may become necessary for us to modify the Guidelines in order that they remain consistent with the Grid Code and/or Balancing and Settlement Code.

In any event, where our statutory obligations or the provisions of the Grid Code are considered inconsistent with any part of these Guidelines, then the relevant statutory obligation and/or Grid Code provision will take precedence.

Unless defined in the Guidelines, terms used herein shall have the same meanings given to them in the Electricity Transmission Licence, the Grid Code and/or the Balancing and Settlement Code as the case may be.

The latest version of this document is available electronically from our website. Alternatively, a copy may be requested from the Head of Markets. Full contact details are set out in Part E of this document.

#### PART B: GENERAL PRINCIPLES

### 1. Balancing Services

The services that we need to procure in order to operate the transmission system constitute Balancing Services.

The Transmission Licence defines Balancing Services as:

- (a) Ancillary Services;
- (b) Offers and Bids made in the Balancing Mechanism; and
- (c) other services available to the licensee which serve to assist the licensee in co-ordinating and directing the flow of electricity onto and over the GB transmission system in accordance with the Act or the standard conditions and/or in doing so efficiently and economically, but shall not include anything provided by another transmission licensee pursuant to the STC.

In addition to the above definitions and separate to the transmission licence, replacement reserve shall also constitute as a balancing service.

#### **Ancillary Services:**

These services are described in Connection Condition 8 of the Grid Code and are classed as either System Ancillary Services provided only by Generators and HVDC System Operators or Commercial Ancillary Services which can be provided by any party.

#### **Balancing Mechanism Offers and Bids:**

These are commercial services offered by generators and suppliers and procured through arrangements set out in Paragraph 5.1, Section Q of the Balancing and Settlement Code. They represent a willingness to increase or decrease the energy output from Balancing Mechanism Units (BMUs) in exchange for

payment. Accepted services are used to control the national and local balance of generation and demand.

#### Other Services:

These are commercial services that can be entered into with any party, which are classified neither as Ancillary Services nor as BM Offers and Bids.

#### Replacement Reserve:

This is a commercial service offered by, generators, suppliers and virtual lead parties and represent a willingness to increase or decrease the energy output from Balancing Mechanism Units in exchange for payment. Accepted services are used to balance generation and demand across participating TSO's participating in project TERRE

#### 2. **Procurement Principles**

The ESO is incentivised by new licence conditions to establish a Forward Plan and to report on progress throughout the year. Full details of our incentives including monthly performance reporting is available on the ESO <u>website</u>.

In line with our incentives, when procuring Balancing Services, we will apply the following principles.

- Without prejudice to the factors below and after having taken relevant price and technical differences into account, we shall contract for Balancing Services in a non-discriminatory manner.
- In contracting for the provision of Balancing Services we will purchase from the most economical sources available to us having

regard to the quality, quantity and nature of such services at that time available for purchase.

- The types of issues considered with regards to quality and nature are best explained via an example. When considering a requirement for frequency response from two potential providers we will have regard to the quality, quantity and nature of frequency response available for purchase. In assessing the quality of the service we will consider, for example, the historical performance of the provider. In assessing the nature of the service we will consider, for example, whether the nature of the provider's frequency response service is dynamic or static.
- We will seek to procure Commercial Ancillary Services via an appropriate competitive process (identified in Table 1) or market mechanism, as described in Part D of this document. In such instances, we shall provide a statement indicating the processes and terms under which contracts will be awarded. Copies of these statements are available from the Information Provision Contact listed in Part E of this document.
- The requirement for Commercial Ancillary Services will be published on our website.
- We do not plan to procure any new, or additional volumes of existing Commercial Ancillary Services contracts outside of a competitive process or market mechanism. Our longer-term strategy is to reduce the number of existing Commercial Ancillary Services contracts that were procured outside of a competitive process or market mechanism.

- We shall advertise the requirement for Commercial Ancillary Services as appropriate through the communication media set out in Part D of this document.
- If a third party requires Balancing Services, and if we secure provision of such services on their behalf, the associated costs of provision will be fully recharged to the party requiring such services.
- Where the ESO conducts Ancillary Services trials that involve additional provider contracts, we will publish the timelines, purpose and results of these trials in the Market Information Reports, or through the Network Innovation <u>publications</u>, both published on the ESO website.
- The ESO may use trials to test new approaches. The ESO will seek to ensure that trial arrangements are fair and do not materially distort established markets where ever possible. Bilaterally agreed (bespoke) trial arrangements should only be remunerated 'at cost' and/or should be time or cost limited unless or until the opportunity to participate has also been opened up to the rest of the market.

# 3. Taking Actions Outside the Balancing Mechanism

We will need to procure Ancillary Services and "Other Services" for:

- System Security Services may be procured outside the BM if we consider that there will be insufficient Offers and Bids available within the BM to balance the system and maintain security of supply.
- Cost Services may be procured outside the BM if we consider that it would provide an economic alternative to purchasing services through the BM.

- Differentiation Services may be procured outside the BM if the required technical characteristics are not available through BM Offers and Bids.
- Our consideration of whether to undertake actions within or outside the BM will be based on a forecast of the level and cost of services expected to be available within the BM. Contracts will be entered into outside the BM when we anticipate a shortage of appropriate Offers and Bids in the BM to meet system security requirements, or if we consider that such contracts will lead to a reduction in overall cost or provide technical characteristics that are not available through BM Offers and Bids. The principles by which we will forecast the sufficiency or otherwise of Offers and Bids in the BM, and technical characteristics, are set out in the Balancing Principles Statement.
- Ancillary Service Agreements are normally entered into prior to Gate Closure such that prices and service capability are agreed well before they are exercised. Typically, Ancillary Service Agreements provide for the services to be exercised within Gate Closure timescales and for payments to be made in addition to those made within the BM. An example of this type of payment is the Frequency Response capability payment which is contracted for in advance and then made when a provider is placed in a state where it is capable of deviations in its output as a result of deviations in system frequency.
- We sometimes buy or sell electricity (in advance of the Balancing Mechanism process), called "forward trading". It helps us balance the system and manage system issues ahead of real time. We use two different trading mechanisms:

- Forward Trading negotiated bilateral contracts, which can be tailored to suit the parties' needs, which are used to resolve system issues, such as voltage constraints, thermal constraints or stability.
- System management contracts agreements for services that help us manage system issues; we use these mainly for longer term system requirements or accessing non-BM generation or demand. These are often optional contracts that are enacted at day ahead.
- You'll find more detail on our website at www.nationalgrideso.com. Look under Balancing services, and then Trading.
- Where standard energy related products do not provide for our specific requirements, we will seek to amend the standard trading instrument by agreement. For example, for the provision of a MW profile from a specific BMU provider, we may choose to use a Grid Trade Master Agreement Schedule 7A transaction to ensure that energy is delivered according to that MW profile. This could be used to synchronise or desynchronise BMUs with dynamics that extend outside the BM.
- To manage interconnector flows to help manage system issues such as stability or import/export constraints, NGESO may need to limit changes to the interconnector scheduled flow occurring during the intraday market, or in the day ahead market where an intraday market does not exist. We achieve this by using the following mechanism:
  - Intraday Trading Limits (ITL) / Network Transfer Capacity (NTC)
     bilateral or trilateral agreement to limit the amount of capacity released into the day ahead or intraday auction. This can also be used to prevent a previously traded position from being unwound back in the other direction.

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#### PART C: BALANCING SERVICES REQUIRED

# 1. Types of Balancing Services

There are two broad types of Ancillary Service, as defined in the Grid Code, System Ancillary Services and Commercial Ancillary Services.

#### **System Ancillary Services**

These are divided into two parts, comprise Part 1 System Ancillary Services that are mandatory services required from all licensed Generators and HVDC System Owners, and Part 2 System Ancillary Services are services provided by some Generators, on a site by site basis, to meet specific system requirements where agreement is reached.

System Ancillary Services comprise the services as set out in and described in Connection Condition 8.1 of the Grid Code:

- All Large and some medium power stations\_are required to provide Part 1 System Ancillary Services to ensure the provision of a minimum technical capability to provide reactive power and frequency sensitive generation.
- If agreement is reached some generators are required to provide the Part 2 System Ancillary Services of Black Start, frequency control by means of Fast Start and System to Generator Operational Intertripping.

#### Future Requirements for Part 2 System Ancillary Services

We are interested in discussing arrangements with potential new providers of the Black Start Capability service, and in line with our published Black Start Strategy and Procurement Methodology, we will seek to introduce competition to our procurement process wherever economic and efficient to do so. There is no requirement for any additional Fast Start Capability beyond the current provision from all existing providers. Requirement for System to Generator Operational Intertripping Schemes will be dependent upon future system development and new connections to the Transmission System. There is currently no additional requirement for the Maximum Generation service.

#### Potential for further Dynamic Products

In the future, the ESO aims to deliver a new suite of faster-acting frequency response services (Dynamic moderation and Dynamic regulation) to support our operations as the electricity system is decarbonised and to ensure that these new services enable a level playing field for all technologies. Dynamic Containment is the first of our new end-state services that we will be releasing to mitigate this risk, as with Dynamic Containment these services will be procured on a daily basis.

# **Commercial Ancillary Services**

Commercial Ancillary Services, described in Connection Condition 8.2 of the Grid Code, are provided by a User (or other person) if an agreement has been reached, under an Ancillary Services Agreement or Bilateral Agreement. The capability of these Commercial Ancillary Services is set out in the relevant Ancillary Services Agreement or Bilateral Agreement.

We have a requirement for the following categories of Commercial Ancillary Services. A more detailed description of the types and mechanism for these services are provided in section 2.

 Reserve: is required to operate the transmission system securely, and provides the reserve energy required to meet the demand when there are shortfalls or surpluses in generation, due to demand changes or generation breakdowns.

- Response: is a service we use to keep the system frequency close to 50Hz. Fast acting generation and demand services are held in readiness to manage any fluctuation in the system frequency, which could be caused by a sudden loss of generation or demand.
- Reactive Power: we manage voltage levels across the grid to
  make sure we stay within our operational standards and avoid
  damage to transmission equipment. Voltage levels are controlled by
  reactive power, and we pay providers to help manage voltage levels
  on the system by controlling the volume of reactive power that they
  absorb or generate.
- Constraint management services: Running the transmission network also requires actions to protect equipment, enable access to the system, keep within the Security and Quality of Supply Standards (SQSS) and prevent the loss of large parts of the network. In order to do this, we sometimes ask a service provider to reduce, or constrain, the amount of electricity it's producing. When we do that, we still need the electricity it would have produced so we can balance the system but we can't move it in or out of a certain area. We make up the difference by buying energy from another provider in a different part of the transmission network. It can also happen the other way around: we might need to produce more energy in some areas, which means we need to reduce production elsewhere. Where appropriate, changes to loss of mains protection may be procured to reduce or prevent a constraint. We break down constraints into three groups:
  - Thermal Constraints
    - Intraday Trading Limits (ITL) / Network Transfer
       Capacity (NTC) are used to manage thermal
       constraints to maintain system security
  - Voltage Constraints
  - o Stability Constraints

As part of our Network Development Roadmap we are developing services to allow us to compare commercial solutions with regulated

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asset build and find the most economic solution. Pathfinder projects will be used to procure services on an ad-hoc basis ahead of this new approach being included in the Network Options Assessment (NOA) methodology.

The assessment principles that we intend to apply across the Pathfinders are published in our annual NOA methodology, however as we are undertaking a learning by doing approach, if a different approach is identified as appropriate, this will be clearly highlighted as part of the tender documents and updated in the subsequent NOA methodology review.

The principles we will apply are:

- Setting out our requirements, which may vary by location and/or year.
- A total cost for tendered options will be calculated along with their contribution to the requirements.
- Their cost will be made up of the price submitted for an options availability and/or utilisation, and any other costs to consumers such as, the cost of infrastructure assets (which are recovered through TNUoS) or the costs of procuring capacity during outage periods.
- Their contribution may depend on their location or voltage level, or be weighted according to the specific requirements of the pathfinder.
- TO-build assets will be assessed alongside tendered options in a similar way, but with their total cost made up of their capital costs to build the asset, operating costs, and any other costs to consumers such as the cost of energy losses (which are not directly faced by the TO).
- All options will be checked against defined criteria such as minimum size, availability, start date and technical specifications before progressing into the economic assessment.
- Where the requirements could also be solved through alternative actions, such as using units in the Balancing Mechanism, these alternatives will also be considered in the assessment. If tendered

options and TO-build options do not offer a benefit against these alternative actions, the result may be to procure less than the stated requirement.

 The lowest-cost solution which meets the requirements of the pathfinder will be accepted. In some tenders this may be a portfolio of several options which meet the requirements when operating together. This solution will be verified with any necessary technical study

Optional Downward Flexibility Management (ODFM): is a service which allows the ESO to access downward flexibility that is not currently accessible in real time and expand our ability to control output from providers we cannot currently access through the Balancing Mechanism and the Platform for Ancillary Services, this will be treated as a last resort service

 Maximum Generation (Maxgen): This is a commercial non-firm service that the System Operator procures to maintain the integrity of the GB Transmission System in emergency circumstances.
 Details of provision, availability and utilisation are provided in section 4.2 of the CUSC.

#### 2. Description of Commercial Ancillary Services

In line with the Monthly Balancing Service Statement (MBSS), the descriptions of Ancillary Services below divide the services into "mandatory", "commercial", and "tendered" service types. Tendered services are attributed to our tendered services frameworks, for example Firm Frequency Response, Fast Reserve and STOR. Mandatory services are Part 1 System Ancillary Services required under the Grid Code for Ancillary Services or as part of their connection agreement, for example reactive power, and some types of generator intertrip. Commercial services cover Ancillary Service contracts that are not part of our tendered services frameworks, for example Black Start.

#### 2.1 Commercial Ancillary Services we expect to procure

#### Reserve

#### STOR - tendered

Short-term Operating Reserve (STOR) allows us to have extra power in reserve for when we need it through an increased output from generation or a reduction in consumption from demand sources. It helps us meet extra demand at certain times of the day or if there's an unexpected drop in generation. The requirement for STOR is dependent upon the demand profile at any time. The STOR product is split into six seasons, which specify the Availability Windows where STOR is required each day. STOR is procured on a daily basis for the next day, starting April 2021 You can find more detail about STOR, and the timetable for future tenders, on our website at www.nationalgrideso.com. Look under Balancing services, and then Reserve services.

#### Fast Reserve - tendered

Fast Reserve provides the rapid and reliable delivery of active power through an increased output from generation or a reduction in consumption from demand sources, following receipt of an electronic dispatch instruction from NGESO. Fast Reserve service must commence within two minutes following instruction, at rates of 25MW or greater per minute and providing a minimum of 25MW. NGESO currently breaks down the Fast Reserve into two categories: Optional Fast Reserve for BM and Non-BM suppliers, and non-tendered Fast Reserve. You can find more detail about Fast Reserve on our website at www.nationalgrideso.com. Look under Balancing services, and then Reserve services.

#### Other Reserves – commercial moving to tendered

We currently have several other reserve services (see section 2.2) that we are not actively procuring and are under review. The aim is to move away from services procured outside of competitive mechanisms, so we do not intend to procure additional volume under the current frameworks. However, the full suite of reserve products will be reviewed as per our recent Road Map publication in 2019.

#### Response

#### Firm Frequency Response - tendered

We procure Firm Frequency Response as and when required. Additional response, is also procured through the Mandatory Frequency Response Market in the Balancing Mechanism. More information about frequency response and the services we procure can be found on our website. Look under Balancing Services, then <u>Frequency Response Services</u>.

During 2020 we will be looking to procure new frequency response products, these products will be procured through competitive tenders. Further details of the new products will be released on the markets website.

#### **Reactive Power**

#### Obligatory Reactive Power Service – mandatory

The vast majority of reactive power is procured through the Obligatory Reactive Power Service, a Part 1 System Ancillary Service, or through localised constraint management actions and tenders. A wider review of Reactive Power will be undertaken, likely from 2021, once learnings from a series of ongoing projects are understood. These projects include Power Potential (accessing dynamic voltage support from embedded providers), NOA Pathfinder tenders (identifying alternatives to network asset investment) and network boundary transfer discussions with the DNOs.

 You can find more detail about reactive power on our website at www.nationalgrideso.com. Look under Balancing services, then Reactive power services

#### Constraint management services

Import and export constraints - commercial

Voltage constraints - commercial

Stability constraints - commercial

System to generator intertrip - commercial

We expect that we will require constraint management services to manage voltage constraints and thermal or transient stability import and export constraints. We will also need to arm existing system to generator intertrips to manage power flows across the network. The requirement for constraint management services is driven by system conditions, the network outage plan, and system faults. These contracts are normally procured outside of market mechanisms because of insufficient market participants and locational nature of the requirement.

#### **Dynamic Containment**

Dynamic Containment (DC) is designed to operate post-fault, i.e. for deployment after a significant frequency deviation in order to meet our most immediate need for faster-acting frequency response. Dynamic Containment will be procured on a daily basis.

For further information on how to get involved please visit:

https://www.nationalgrideso.com/industry-information/balancingservices/frequency-response-services/dynamic-containment?overview"

**Optional Downward Flexibility Management (ODFM)**: is a service which allows the ESO to access downward flexibility that is not currently accessible in real time and expand our ability to control output from providers we cannot currently access through the Balancing Mechanism and the Platform for Ancillary Services, this will be treated as a last resort service

2.2 Existing Commercial Ancillary Services we don't expect to procure this year

Reserve

#### Other Reserves - commercial

This includes the other contracted reserve services that help to offset the cost of managing reserve in the BM. Following our procurement principles, we do not plan to procure any additional volumes of the following services above what we already have contracted. We are reviewing our reserve product suite in 2019 with a view to move to a market based approach. Details of the reserve types presented here can be found on our website. Look for Balancing services, list of all balancing services. Services classed as Other Reserves include:

- Hydro Optional Spin Pump
- Hydro Rapid Start
- BM Warming
- non-tender Fast Reserve no low frequency trigger
- \*\_Demand turn-up service is a tendered service, but we do expect it to be part of the reserve product suite review. In addition to the review we expect that some elements of demand turn up to be part of the Optional Demand Flexibility Management service

# Response

#### Other Response - commercial moving to tendered

We intend to remove the following frequency response products from active procurement and meet the requirement in a more transparent and competitive way. We are working with all affected parties to transition them to new routes to market.

- Enhanced Frequency Response
- Interconnector Response
- Non-tendered Fast Reserve with low frequency trigger

For further information NGESO about our plans for future response services please see the <u>response section</u> of our website, and the Future of balancing services <u>product roadmaps</u>.

#### **Reactive Power**

#### Enhanced Reactive Power Service (ERPS)- removing

We have signalled our preference to remove Enhanced Reactive Power Service, which is run every six months in line with the CUSC, from our suite of services in lieu of locational tenders and other projects in the voltage space, i.e. Power Potential and NOA Pathfinders. This matter is currently being considered within a modification working group, the outcome of the modification process will determine whether it should be removed or updated. For the avoidance of doubt bi-annaul (six months) tenders will run until any decision to remove the service is made.

#### **Maximum Generation**

We don't expect to procure additional Maximum Generation contracts this year, but we will maintain existing contracts for use in emergency. Information relating to the utilisation is published on the BMRS in line with the requirements defines in part B section (e) of the Balancing Principles statement. The fees, timeframe of instruction and volume of energy delivered is published on the ESO website in accordance with section 4.2.12.3 of the CUSC. Costs and volumes associated with the use of Maximum Generation service are included in the calculation of BSAD in line with requirements defined in Part B section 1.2 of the BSAD methodology Statement. The volume of energy delivered as a result of the use of Maximum Generation will be included in the calculation of ABSVD and treated in accordance the procedure defined in the ABSVD methodology statement.

Optional Downward Flexibility Management (ODFM): is a service which allows the ESO to access downward flexibility that is not currently accessible in real time and expand our ability to control output from providers we cannot currently access through the Balancing Mechanism and the Platform for Ancillary Services, this will be treated as a last resort service.

#### **Dynamic Containment**

Dynamic Containment (DC) is designed to operate post-fault, i.e. for deployment after a significant frequency deviation in order to meet our most immediate need for faster-acting frequency response. Dynamic Containment will be procured on a daily basis.

For further information on how to get involved please visit:

<a href="https://www.nationalgrideso.com/industry-information/balancing-services/frequency-response-services/dynamic-containment?overview">https://www.nationalgrideso.com/industry-information/balancing-services/frequency-response-services/dynamic-containment?overview</a>

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#### 2.2 Prohibited Activities

We have been given discretion with regard to the procurement of Balancing Services, subject to a licence obligation to operate the transmission system in an efficient, economic and co-ordinated manner and under the umbrella of an incentive scheme.

We should be able to make the best use of the range of tools available to us including (but not limited to) energy contracts and option contracts called both inside and outside of the BM.

In addition to the licence obligation to operate the transmission system in an efficient, economic and co-ordinated manner, we are also prohibited from purchasing or otherwise acquiring electricity except pursuant to the procurement or use of Balancing Services in connection with operating the transmission system and doing so economically and

efficiently (or with the consent of the Authority) with the result that we are prohibited from speculative trading.

# 3. <u>Demand Side Providers and Small Generators</u>

We are interested in procuring Balancing Services from demand side providers subject to technical and dynamic considerations (where demand side providers, include demand reducers, demand increasers and small generators embedded on site). Demand side providers provide Commercial Ancillary Services as defined in section 1 above. The types of Balancing Services that we are interested in procuring from demand side providers are the same as shown in the list of Commercial Ancillary Services provided 2.1. Demand side providers are encouraged to participate in the standard market tender process we use to procure the Commercial Ancillary Services. Non-BM providers already participate in Frequency Response, STOR, Fast Reserve and other reserve services and account for around 20% of our total Ancillary Services costs. Our Power Potential innovation project aims to create new markets for distributed energy resources, more information can be found on our website.

#### PART D: PROCUREMENT MECHANISMS

#### 1. Procurement Process

#### System Ancillary Service

System Ancillary Services are mandatory for all licensed Generator or required by some licenced Generators in certain circumstances, these are agreed the bilateral contracts.

#### Commercial Ancillary Services

As indicated in Part B of these Guidelines, we will seek to contract for Balancing Services via some form of market mechanism. Where possible we will not enter into new contracts procured outside of market mechanisms for the provision of Commercial Ancillary Services. In some circumstances, such as constraint management services, we may need to enter into non-tendered contracts where the requirement is often location dependant and there are insufficient market participants. We will maintain existing non-tendered contracts only where it is economic to do so and while new market based frameworks are in development. Further information is available from the <u>future of balancing services</u> section of our website.

#### Market mechanism

This will normally be a tender based process for the selection and award of service contracts. In each case, the mechanism will include:

- a statement of our service requirements;
- the issuing of invitation to tender documentation, providing sufficient information to allow the provision of a service offer to be made, including standard contract terms and conditions;
- arrangements for governance of the process;

- a statement of principles and criteria that we will consider when evaluating the awarding of contracts; and
- a report providing information on previous tenders.

#### **Bilateral Contracts**

Wherever possible we will use a market approach to the procurement of Commercial Ancillary Services, but in some situations bilateral contracts may be required where limited competition exists in the supply of a service (taking into account locational factors where necessary). This may be due to special technical requirements of the desired service, where some form of monopoly exists or the unique characteristics of certain individual providers.

Where we consider there to be a limited degree of competition, we will

- contact those service providers we believe to be capable of providing the required service or who have expressed an interest in providing the service in order to establish whether they wish to enter into a contract for the service in question; and
- offer non-discriminatory terms for the acquisition of the service.

However, if there is insufficient time to identify and contact other providers, we reserve the right to contract as appropriate to meet system security requirements.

#### 2. Procurement Communication Media

We shall communicate service requirement through market information reports on our website and if necessary by contacting those parties that we believe may be interested in providing the service, including any existing or past service providers, and anyone that has expressed a prior interest in providing such services in the future.

#### 3. Procurement Summary

Table 1 provides the Balancing Mechanism, Trading and System Ancillary Services we have available to us, how they are procured and the timescales for procurement. Table 2 sets out the Commercial Ancillary Services we intend to procure and the mechanisms by which we expect to procure them this year. It also sets out the timescales over which we intend to procure those Balancing Services set out in Part C, section 1 of these Guidelines. Table 3 provides a list of existing services that we do not intend to procure, but are working on moving into market based procurement frameworks.

Table 1 BM, TRADING AND SYSTEM ANCILLARY SERVICES

ANCILLARY SERVICES	MEANS OF PROCUREMENT	TIMESCALES
Balancing Mechanism bids and	Bilateral contracts entered into	As required
offers	pursuant under CUSC	
Replacement Reserve	Bilateral contracts entered into	As required
	pursuant under CUSC	
Forward Trading	Bilateral contracts	As required
Intraday Trading Limits/ Net	Bilateral / trilateral contracts	As required
Transfer Capacity		
System Ancillary Services		
Part 1 Services		
Reactive Power	Mandatory Services Agreement	Evergreen
	pursuant to the CUSC	
Frequency Response	Mandatory Services Agreement	Evergreen
	pursuant to the CUSC	
Part 2 Services		
Black Start	Bilateral contracts	Up to life of asset
Fast Start	Entered into pursuant to the	Up to life of asset
System to Generator	CUSC	
Operational Intertripping		

Procurement Guidelines

29

#### Table 2 ACTIVE COMMERCIAL ANCILLARY SERVICES

Active commercial ancillary services will be procured on an as required basis, in line with the Clean Energy Package which requires all volumes of balancing capacity products be procured at Day Ahead. However, there is currently one open derogation and the possibility of more in the future. Providers will be given adequate notice of any revisions to tendering frequency and rationale for changes.

ANCILLARY SERVICES	MEANS OF PROCUREMENT	TIMESCALES
Commercial Ancillary Services		
Constraint Management Services	Bilateral Contracts or Contracts derived from market tenders	As required
Frequency Response		
Firm Frequency Response	Contracts derived from market tenders or auction	As required
Reserve		
Fast Reserve	Contracts derived from market tenders process	As required
• STOR	Contracts derived from market tenders process	As required
• ODFM	Contracts derived from market tender process	As Required
Dynamic Containment	Contract derived from market tender process	As Required

# Table 3 COMMERCIAL ANCILLARY SERVICES UNDER REVIEW

We don't expect to procure any additional volumes of the following services.

ANCILLARY SERVICES	MEANS OF PROCUREMENT	TIMESCALES
Frequency Response	No requirement for these services.	Service review carried
Enhanced Frequency	We plan to meet the requirement in	out as per our Response
Response	a more transparent and competitive	and Reserve Roadmap
Non-tendered Fast Reserve	way. We are working with all	
low frequency trigger	affected parties to transition them to	
	new routes to market.	
Reserve	We do not plan to procure any	Service review will be
BM Start Up	additional volumes of the following	carried out as per our
Maximum Generation	services above what we already	Response and Reserve
Hydro Optional Spin Pump	have contracted. We are reviewing	Roadmap.
Hydro Rapid Start	our procurement frameworks for	
BM Warming	reserve with a view to move to a	
Non-tendered Fast Reserve	market based approach.	
no low frequency trigger		
Reactive	Service will be removed.	This matter is currently
Enhanced Reactive Services		being considered within
		a modification working
		group, the outcome of
		the modification process
		will determine whether it
		should be removed or
		updated.

PART E: INFORMATION PROVISION

1. General Provisions

Under the 2018-21 regulatory framework we are incentivised to support market participants to make informed decisions by providing user-friendly, comprehensive, and accurate information. More information

about our incentives can be found on our website.

We shall publish information on the Balancing Services that we intend to procure, the outcomes of tender rounds for each service, and the costs and volumes of the services that are procured. In doing so we will seek to provide market participants and other interested parties with sufficient information without compromising the commercial position of any

contracting party.

As part of the provision of information we will provide BSAD. The calculation methodology used is set out in a separate document entitled "BSAD Methodology Statement" established by National Grid Electricity

System Operator under the Transmission Licence.

2. <u>Information Provision Contacts</u>

All queries regarding the provision of Balancing Services we intend to

procure should be made, in the first instance, to:

Head of Markets

National Grid Electricity System Operator

Faraday House

Warwick Technology Park

Gallows Hill

Warwick CV34 6DA

Email: BalancingServices@nationalgrideso.com

#### 2. Information Provision Detail

In the circumstances where tenders are held we publish information on the outcome of these processes via market reports, which are available on our web-site. This is currently the case for Reactive Power (every six months), STOR (as required), Fast Reserve (monthly), and Firm Frequency Response (monthly). In addition information will also be published for Maximum Generation Service on a disaggregated basis.

#### 3. Volumes of Balancing Services

Cost and Volumes of Balancing Services procured can be found in the Monthly Balancing Services Statement section on our website.

#### 4. <u>Information Provision Summary</u>

Table 2 sets out the information on Balancing Services that we will make available to market participants and other interested parties. A number of services set out in Table 1 have been aggregated in Table 2 to ensure that we provide market participants and other interested parties with sufficient information without compromising the commercial position of any contracting party.

Table 2 sets out the volume and price information we are able to make available and the timescales over which the information will be updated. In many cases the information will be provided pursuant to the BSAD Methodology Statement. In addition, Table 2 sets out the source of the information, Hard copies of this information may be requested from the Head of Market Change - Electricity. Full contact details are set out in Section 2 above.

#### 5. Future Developments

Information provision in the future will be integral to the development of new services and will follow the following principles:

- Information in relation to balancing activities undertaken by National Grid Electricity System Operator will be made available if it helps the efficient operation of the wider market;
- Ex-ante information will be made available if it helps the market to be in a position to balance without SO intervention; and
- Information will be made available to all parties at the same time, on an equal basis without discrimination or favour.

In conjunction, National Grid Electricity System Operator will aim to ensure that:

- Information transparency does not undermine an individual party's commercial confidentiality;
- Provision of information does not result in the SO becoming a 'distressed buyer;
- Information will not highlight where the SO has a locational specific constraint; and
- any benefit to the wider industry from the provision of increased information should justify the costs of its provision.

#### 6. Disclaimer

All information published or otherwise made available to market participants and other interested parties pursuant to these Procurement

Guidelines is done so in good faith. However, no warranty or representation is given by National Grid Electricity System Operator, its officers, employees or agents as to the accuracy or completeness of any such information, nor is any warranty or representation given that there are no matters material to any such information not contained or referred to therein. Accordingly, no liability can be accepted for any error, misstatement or omission in respect thereof, save in respect of a misrepresentation made fraudulently.

**TABLE 2: Balancing Services Information Provision Summary** 

Balancing Services	Requirement and tender outcome	Price and volume information	Timescale	Link to service information
Balancing Mechanism bids and offers	N/A	BM Reports	daily	https://www.bmreports.com/bmrs/?q=balanci ng/
				https://www.nationalgrideso.com/balancing- services/trading
		Trading reporting site,	daily,	https://trades.nationalgrid.co.uk/
Forward Trading	N/A	BSAD, MBSS	monthly	https://extranet.nationalgrid.com/BSAD/
Intraday Trading Limits/ Net Transfer				
Capacity	N/A	MBSS	as required	
System Ancillary Services				
Part 1 Services				
Reactive Power	website	MBSS	monthly	https://www.nationalgrideso.com/balancing-services/reactive-power-services
Reactive Power	website	IVIDOO	monthly	Services/reactive-power-services
Frequency Response	website	MBSS	monthly	https://www.nationalgrideso.com/balancing- services/frequency-response- services/mandatory-response-services
Part 2 Services				

				https://www.nationalgrideso.com/balancing-
				services/system-security-services/black-
Black Start	website	MBSS	as required	start?overview
Black Gtart	no additional	IVIDOO	as required	Start: Overview
Fast Start	requirement	MBSS	monthly	
		200		https://www.patianalgridage.com/halanaing
System to Generator Operational	website	MBSS	oo roquirod	https://www.nationalgrideso.com/balancing- services/system-security-services/intertrips
Intertripping	wepsite	IVIDOO	as required	Services/system-security-services/intertrips
Active Commercial Ancillary Services				
Active Commercial Affemaly Cervices				https://www.nationalgrideso.com/balancing-
				services/system-security-services/intertrips
				https://www.nationalgrideso.com/balancing-
				services/system-security-
				services/transmission-constraint-
Constraint Management Services	website	MBSS	as required	management
				https://www.nationalgrideso.com/balancing-
				services/frequency-response-services/firm-
Firm Frequency Response	website	MBSS	monthly	frequency-response-ffr
			•	https://www.nationalgrideso.com/balancing-
Fast Reserve	website	MBSS	monthly	services/reserve-services/fast-reserve
				https://www.nationalgrideso.com/balancing-
				services/reserve-services/short-term-
STOR	website	MBSS	monthly	operating-reserve-stor
				https://www.nationalgrideso.com/balancing-
	no additional			services/system-security-services/maximum-
Maximum Generation	requirement	website	ad hoc	generation
O constant A colling Constant				
Commercial Ancillary Services under review				
Response				
				https://www.nationalgrideso.com/balancing-
				services/frequency-response-
Enhanced Frequency Response	website	MBSS	monthly	services/enhanced-frequency-response-efr

Non-tendered Fast Reserve with low				
frequency trigger	N/A	MBSS	monthly	
Bassania				
Reserve				
BM Start Up	website	MBSS	monthly	https://www.nationalgrideso.com/balancing- services/reserve-services/bm-start
Hydro Optional Spin Pump	N/A	MBSS	monthly	
Hydro Rapid Start	N/A	MBSS	monthly	
Non-tendered Fast Reserve without low				
frequency trigger	N/A	MBSS	monthly	
Reactive				
				https://www.nationalgrideso.com/balancing-
Enhanced Reactive Power	website	MBSS	monthly	services/reactive-power-services
	1			