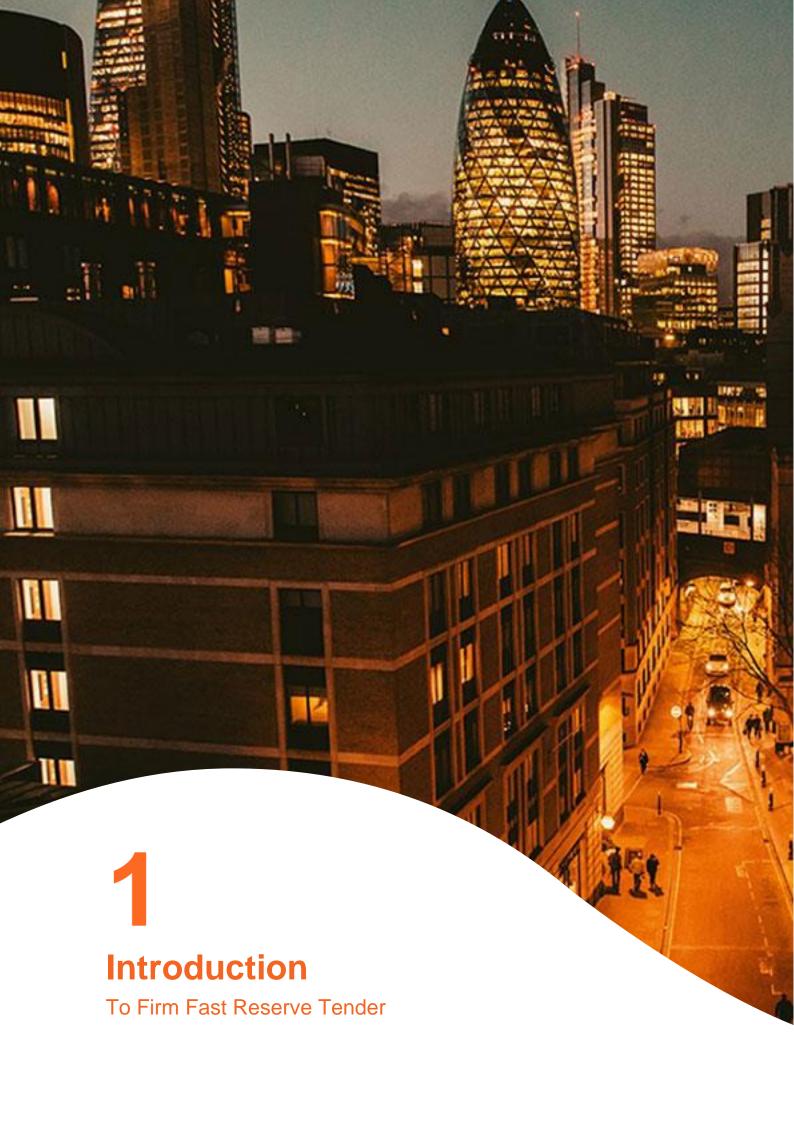
national**gridESO**

Fast Reserve Market Information Delivery from December-18

October-18

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1. Firm Fast Reserve

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 National Grid Electricity System Operator (ESO). Fast Reserve requires all units to have the capability to commence service delivery within two minutes following instruction, at a rate of 25MW per minute or greater and provide a minimum of 50MW. Fast Reserve is an additional energy balancing service used to control frequency changes.

Fast Reserve may be provided as either a Firm service, procured through a tender process, or as an Optional service. Submitted tender prices are compared to the costs of alternatives to deliver the equivalent level of Fast Reserve. This report provides information about the volume of, and time periods over which, Firm Fast Reserve is required to current and potential providers.

To be an eligible service provider for Firm or Optional Fast Reserve you must have demonstrated your Fast Reserve capability to the ESO's reasonable satisfaction. This includes accepting instructions via National Grid ESO's dispatch platforms.

2. Highlights

In October-18, no tenders were received, therefore no additional volume has been contracted.

Following the September-18 tender we have now contracted sufficient volume against our procurement strategy and therefore do not need to secure any further volume until the January-19 tender round. We are required to run a monthly tender but for the sake of clarity we will not accept any more volume until the tender round beginning 1st January. If there is change in the requirement it will be communicated via this monthly report.

We have determined that while we have not met our 300 MW requirement from November-18 to February-19 we will not contract any further volume for this period. Contracting any further volume, with a minimum volume requirement of 50 MW will lead to overholding. Units are assessed to take into account overholding and therefore their resulting benefit will be significantly reduced.

Key Points

This Market Information Report is relevant for tenders submitted in November 18 for delivery from December 18.

Tenders from eligible service providers for Firm Fast Reserve should be submitted by Monday 1st November 2018 (1st business day) for all tenders.

National Grid will notify service providers of the outcome of the tender assessment by Tuesday 16th November 2018 (12th business day).

Tenders should be submitted using the latest Tender Submission Form on the ARIBA E-Tender platform. If you have not registered in ARIBA or received an invite to the event, please contact your Account Manager in the first instance. If you have any questions about the event, email: commercial.operations
@nationalgrid.com

More details on the tenders that have been accepted or rejected are available from the post-assessment tender reports at: https://www.nationalgrideso.com/balancing-services/reserve-services/fast-reserve?market-information

The Fast Reserve Assessment Principles Report and other useful reports are available at: https://www.nationalgrideso.com/balancing-services/reserve-services/fast-reserve?how-to-participate

For a monthly cost summary of services procured please follow the below link to the Monthly Balancing Services Summary (MBSS), which gives a breakdown of costs by service including the Firm and Optional Fast Reserve costs: https://www.nationalgrideso.com/balancing-data/system-balancing-reports

This report is under continuous review and development, therefore if you have any comments or suggestions of information you would like to see in the future reports, please contact your account manager or email the assessment team: box.AncillaryAssessment@nationalgrid.com



1. Firm Fast Reserve Requirement

The data used to produce the graphs of the Firm Fast Reserve requirement and contracted volume for each delivery month is available in the <u>Fast Reserve Market Information Data spreadsheet</u>.

Following the September-18 tender we have now contracted sufficient volume against our procurement strategy and therefore do not need secure any further volume until the January-19 tender round.

The following figures show the existing contracted Fast Reserve volume per month and per day

Figure 1. The monthly Fast Reserve requirement against our current contracts for the next 12 months

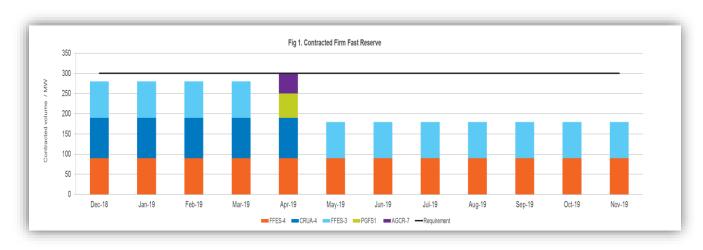
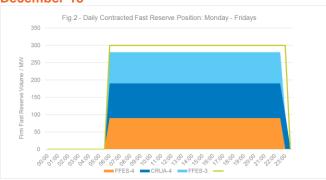


Figure 2 to Figure 4 shows our requirement and contracted Fast Reserve by day for delivery for December-18



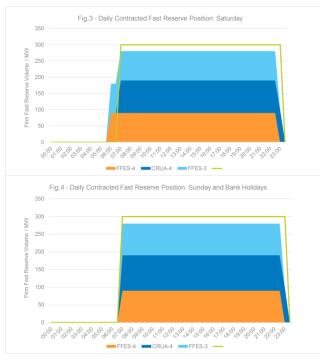


Table 1. 12 months requirement

Month	Additional Optimal Max Firm Requirement (MW)
Dec-18	20
Jan-19	20
Feb-19	20
Mar-19	0
Apr-19	120
May-19	120
Jun-19	120
Jul-19	120
Aug-19	120
Sep-19	120
Oct-19	120
Nov-19	120

We have determined that while we have not met our 300 MW requirement from November-18 to February-19 we will not contract any further volume for this period. Contracting any further volume, with a minimum requirement of 50 MW will lead to significant overholding. Units are assessed to take

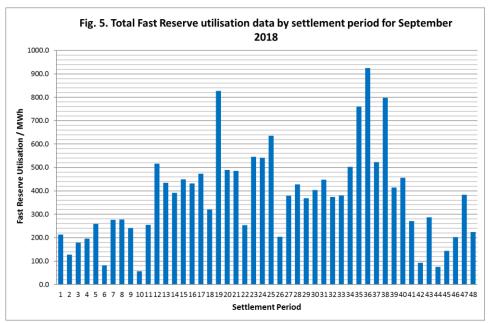
2. Fast Reserve Utilisation Data

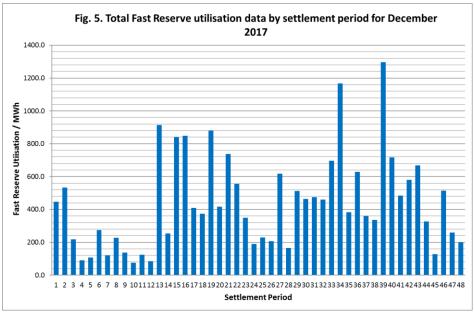
2.1 Monthly utilisation volumes

The following information is based on the aggregate of all accepted offers for Firm and Optional services, from BM and NBM units to provide Fast Reserve.

Figures 5 and 6 are bar charts of the total utilisation by Settlement Period over one month. This data therefore represents the daily profile of Fast Reserve utilisation from the last month, September-18 (Figure 5) and the daily utilisation profile of the next delivery month from last year, December-17 (Figure 6). Please note that each bar chart is the total utilisation for the whole month across all settlement periods and is not the average utilisation by settlement period.

Figures 5 and 6 are bar charts of the total utilisation by Settlement Period over September-18 and December-17 respectively





The representative daily profile of Fast Reserve utilisation given by Figures 5 and 6 show that there is a second peak of Fast Reserve utilisation from settlement period 32 to settlement period 43. We see several tenders that have periods of unavailability during this period over winter i.e. the winter darkness peak. For the foreseeable future, we do not consider it likely to accept tenders that offer no volume during the winter darkness peak, the tenders offer a very low benefit as we incorporate the cost of replacing the service during this time into its forecasted contract cost. Furthermore, for the certainty of available Fast Reserve volume its preferable to have a continuous contracted service during the Fast Reserve requirement window.

2.2 Utilisation volumes by price band

Table 2 gives the total volumes of BM and NBM Fast Reserve utilisation from April 2018 broken down into price bands. The following price information is based on all accepted offers for Firm and Optional services, from BM and NBM units to provide Fast Reserve.

Table 2. The total volumes of BM and NBM Fast Reserve utilisation from April 2018 by price bands.

Fast Reserve BM and NBM Utilisation Volume / MWh (Offers only)							
Price Band £/MWh		Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18
Greater than	less than						
0	60	0	0	0	0	79	0
60	70	0	0	0	0	0	0
70	80	0	0	0	0	0	0
80	90	3005	296	3502	2826	2084	4339
90	100	3325	4798	2239	5138	5738	3621
100	110	7502	6976	4405	5819	6619	6914
110	120	3260	2412	1092	1824	1207	1052
120	130	284	272	188	112	45	154
130	140	8	5	21	77	29	9
140	150	691	634	392	113	155	164
150	160	0	0	0	10	0	0
160	170	1106	700	584	849	764	1540
170	180	0	0	0	0	0	0
180	190	0	28	12	131	0	0
190	200	0	0	0	0	0	0
200		90	135	155	136	141	0
Total		19272	16257	12590	17036	16861	17792

2.3 Utilisation durations by time bands

The following information in Table 3 is a count of all accepted offers for Firm and Optional services, from BM and NBM units based on the Fast Reserve instruction duration.

Table 3. The number of Fast Reserve utilisation instruction by time bands of BM and NBM units from 1st April 2016 to 30th September 2018.

Fast Reserve D	Ouration (mins)	No. of instructions	Percentage of total instructions	Potential % of instruction	
Greater than	less than				
0	1	1682	6%	100%	
1	2	1628	5%	94%	
2	3	1836	6%	89%	
3	4	2331	8%	83%	
4	5	2878	10%	75%	
5	6	2044	7%	65%	
6	7	1564	5%	59%	
7	8	1803	6%	53%	
8	9	1465	5%	47%	
9	10	1136	4%	43%	
10	11	1096	4%	39%	
11	12	1045	3%	35%	
12	13	776	3%	32%	
13	14	832	3%	29%	
14	15	984	3%	26%	
15	16	700	2%	23%	
16	17	601	2%	21%	
17	18	576	2%	19%	
18	19	517	2%	17%	
19	20	461	2%	15%	
20	21	386	1%	13%	
21	22	314	1%	12%	
22	23	314	1%	11%	
23	24	287	1%	10%	
24	25	250	1%	9%	
25	26	219	1%	8%	
26	27	219	1%	8%	
27	28	150	1%	7%	
28	29	144	0%	6%	
29	30	445	1%	6%	
>	30	1306	4%	4%	

3. Market Developments

3.1 Use of Applicable Balancing Services Volume Data (ABSVD) for non-BM Balancing Services at the metered (MPAN) level

On 18th June 2018 the Authority, (Ofgem) approved the proposed modification to the BSC P354 for implementation on 1 April 2020 as a standalone BSC Systems Release. The modification will allow the Transmission Company to provide ABSVD for non-BM Balancing Services providers to BSC Central Systems for allocation to the appropriate Supplier BM Unit to correct their Energy Imbalance position. More details on the proposal and the Authority's approval can be found on Elexon's website:

https://www.elexon.co.uk/mod-proposal/p354/

3.2 Embedded benefits

There have been both Connection and Use of System Code (CUSC) modifications (CMP264 and CMP265) and Balancing and Settlement Code (BSC) modifications (P348 and P349) that will have significant impacts on the payments and transmission charges for smaller embedded generation (under 100MW). These changes are being introduced through a three-year phased implementation, beginning on 1st April 2018. Further details can be found on Ofgem's website.

https://www.ofgem.gov.uk/publications-and-updates/embedded-benefits-decision-industry-proposals-cmp269-and-cmp270

https://www.ofgem.gov.uk/publications-and-updates/embedded-benefits-impact-assessment-and-decision-industry-proposals-cmp264-and-cmp265-change-electricity-transmission-charging-arrangements-embedded-generators

https://www.ofgem.gov.uk/publications-and-updates/embedded-benefits-decision-industry-proposals-p348-and-p349



A. Reason Codes

The table below provides guidance as to the reasons that a tender has been rejected. They can be matched against the numbers in the 'Reason Code' section of the Post Tender Report. This will be effective for tenders submitted from November 2017.

No.	FR Reason Codes	Definition
1	Price not beneficial across tendered period	The price submitted was too high and did not provide any contract benefit against alternative actions.
2	Tender was not beneficial across any duration of the tender period	The tender submitted was not considered beneficial when evaluated against the forecasted cost of alternative actions over any duration of the tender period.
3	Multiple tenders received for the same unit	Only the most valuable tender of the total group of submitted tenders was considered.
4	Beneficial but the benefit is lower than that of other tenders	While the tender submitted was considered as beneficial, on this occasion there were tenders that provided a higher benefit.
5	Beneficial but requirement already satisfied	While the tender submitted was assessed as beneficial, the benefit was not determined as sufficient for us to contract above our procurement requirement.
6	Does not meet tender prerequisites and rules	Please refer to the 'Technical requirements' and 'How to participate' sections using the following link to determine the criteria necessary to participate in the FR market.
		https://www.nationalgrideso.com/balancing- services/reserve-services/fast-reserve?how-to- participate

Where appropriate, new reasons will be added following each tender round.

Faraday House, Warwick Technology Park, Gallows Hill, Warwick, CV346DA

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