

Firm Frequency Response Market Information for January-16

Monthly Report

Published November 2015

Please be aware that following information may change month on month as we are constantly reviewing our operational requirements against what we have contracted.

Key points

This Market Information Report is relevant for **tenders submitted in December for delivery in January.**

Tenders from eligible service providers for firm frequency response should be submitted by **Tuesday 1st of December 2015** (1st business day) for all tenders.

National Grid will notify service providers of the outcome of the tender assessment by **Wednesday 16th of December 2015** (12th business day).

For successful tenders, National Grid will notify nominated windows, following assessment by **Wednesday 16th of December 2015** (12th business day).

Introduction

Firm Frequency Response (FFR) is a service through which balancing mechanism (BM) and non-BM participants commit to providing a given measure of response for a fee. National Grid procures the services through a monthly tender process ahead of BM timescales.

Submitted prices are compared to the costs of alternatives to deliver the equivalent level of frequency response. Mandatory response costs include the forecast response holding costs, the forecast bid and offer positioning costs and the forecast cost of creating headroom to provide response. You can find more information about how these costs are considered during tender assessments via the link below.

This report provides information to current and potential providers about the volume of, and time periods over which response is required.

Highlights

In November 2015, we received 78 FFR tenders for delivery to start from December onwards. 12 tenders were from BM units and 66 were from non-BM units. More details on the tenders accepted/rejected are available from the post-assessment tender report.

Both the FFR Assessment Principles and Post-Assessment Tender Report are available at:

<http://www.nationalgrid.com/uk/Electricity/Balancing/services/frequencyresponse/ffr/>

For a monthly summary of the cost of services procured please follow the below link to the Monthly Balancing Services Summary (MBSS), which breaks costs down by service.

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-transmission-operational-data/Report-explorer/Services-Reports/>

(Please ensure the 'Monthly Balancing Services Summary' Tab is selected)

Please note:

Following recent increases in static response participation in the FFR market and the resultant unprecedented increased level of static response holding in our operational portfolio, we have reviewed our response holding requirements and strategy going forward. In the report below we have now split the requirement volume into volume of that can be offset by contracting Static response units and a volume that can only be offset by dynamic units.

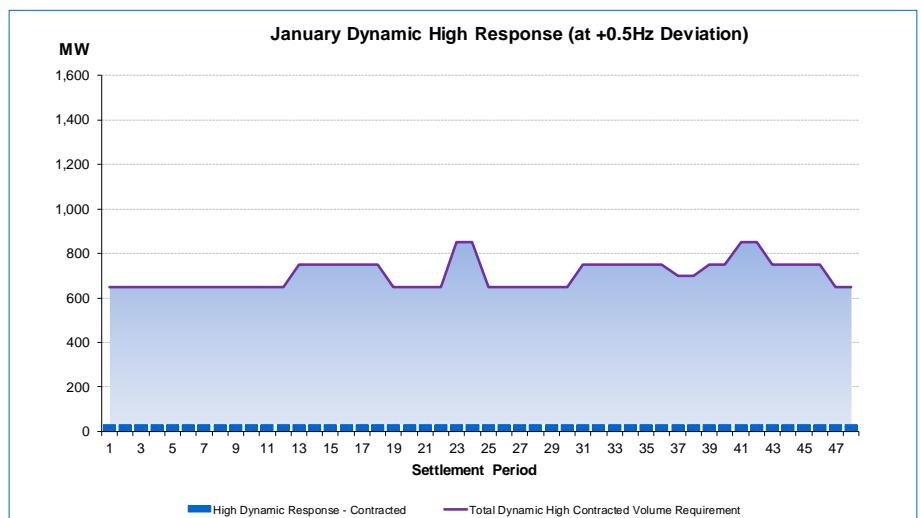
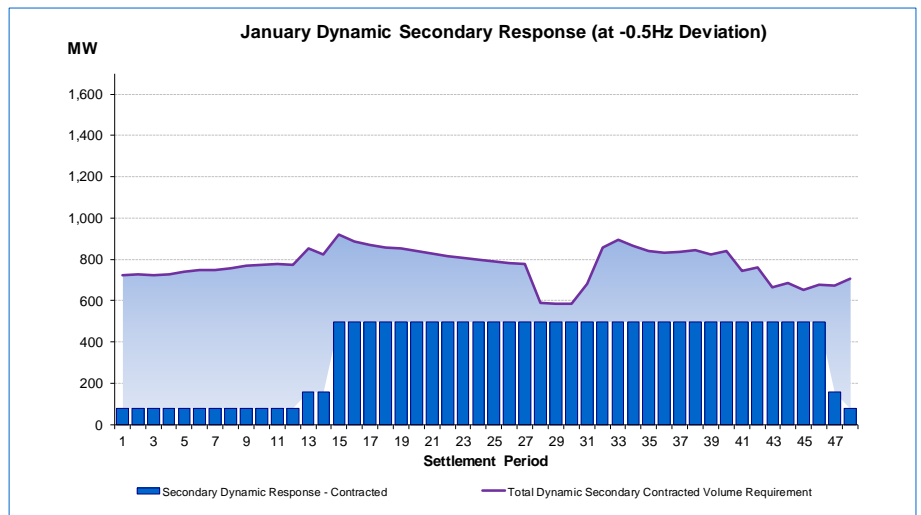
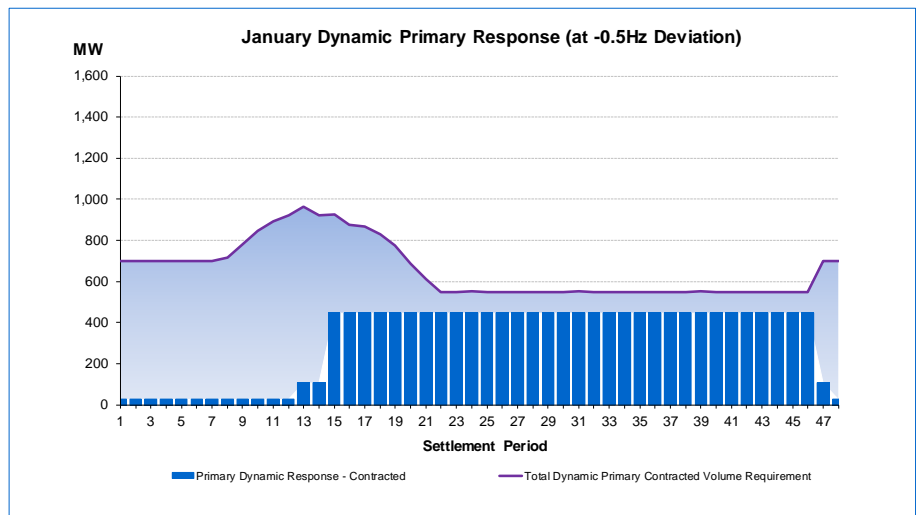
The requirements shown in this report are indicative and are an average expectation of the Primary, Secondary & High requirements given January forecasted system demands, system inertia expectations and the most likely demand & generation risk losses that need to be covered. Generation, demand risk and system inertia scenarios are likely to be less or more onerous on the day.

January-16 Dynamic Requirement

The figures on this page show the amount of existing **dynamic** contracted response capability available by Settlement Period, against the maximum contract volume requirement. Therefore, we are looking to procure volumes to offset the requirement remaining between the existing contracted level and requirement as demonstrated by the coloured/shaded area in the charts.

Key points

- Secondary response is the largest of the three requirements, meeting this requirement from the mandatory response market also delivers some primary and high capability. Thus the highest value contracts are those that can reduce this requirement

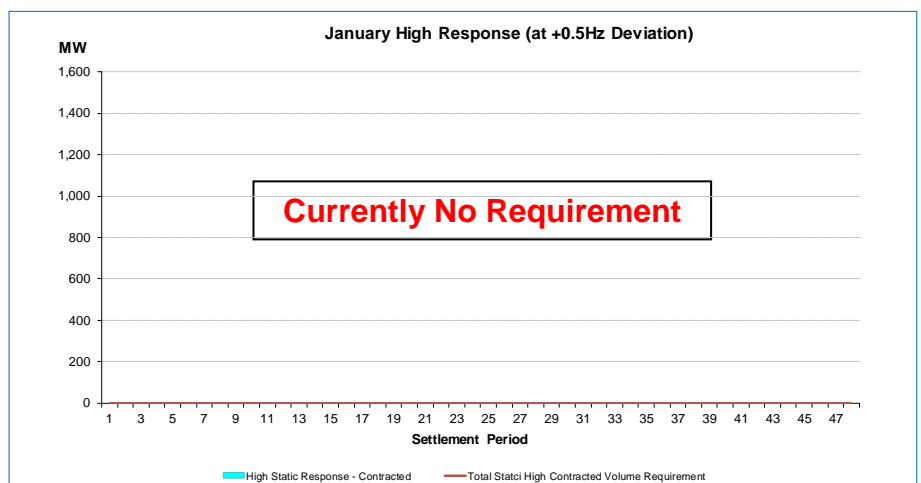
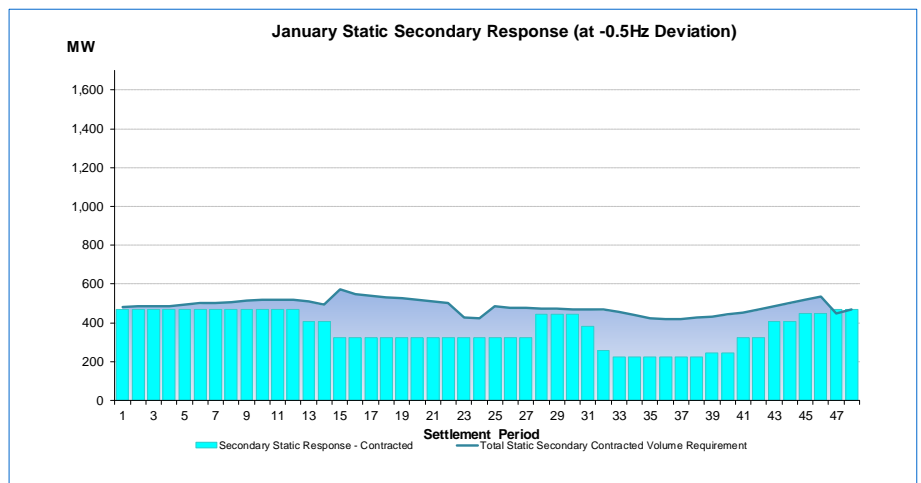
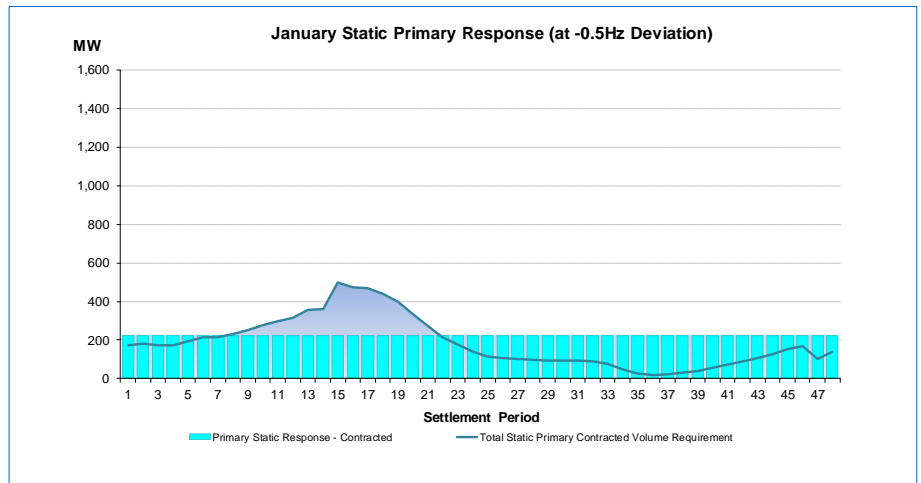


January-16 Static Requirement

The figures on this page show the amount of existing **static** contracted response capability available by Settlement Period, against the maximum contract volume requirement. Due to nature of the operation of static response there is limit to the proportion of Static that can meet the overall response requirement. We are therefore looking to contract the remaining volume as displayed by the coloured/shaded area between the requirement line and existing contract volume.

Key points

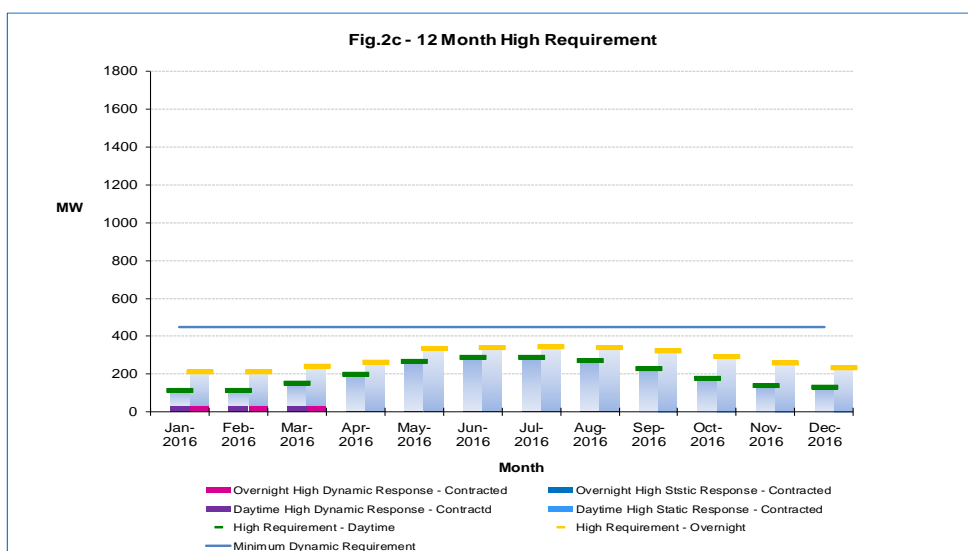
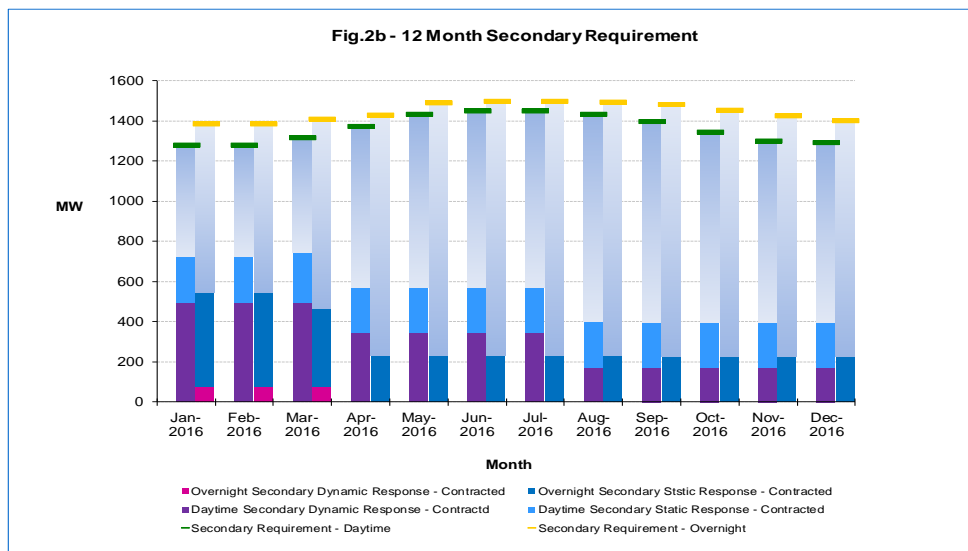
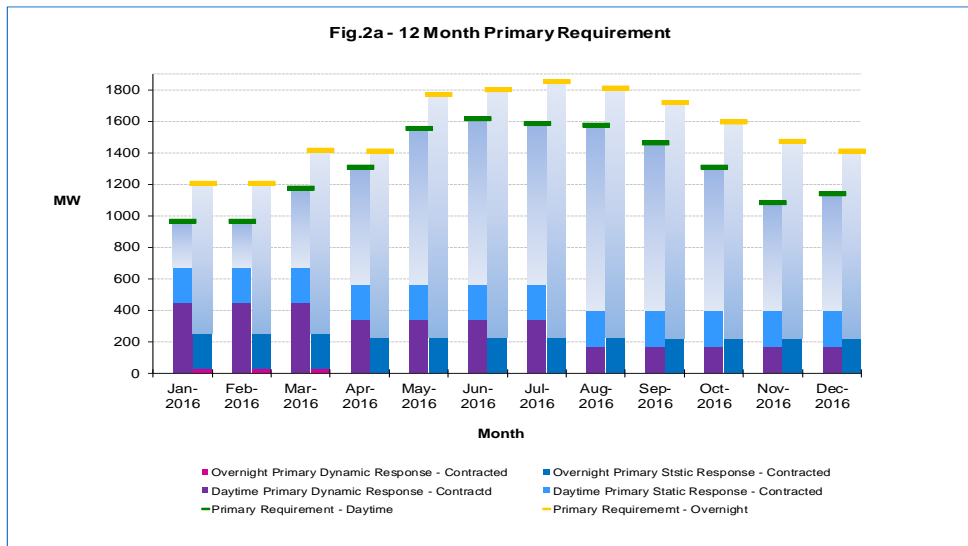
- The response requirement for secondary is the largest of the 3 static requirements.
- There is currently no requirement for high static response.
- We currently do not need to procure more primary static response overnight.



The requirement volume displayed for static response is a contracted volume. Static response services can provide differing levels of response efficiency when considering their time to respond, the flexibility of their set trigger levels and interactions with demand and inertia on the system. Therefore the effect this has on reducing the overall response requirement varies.

12-Month Requirement

Please note this section is under review, to bring it in line with the month ahead data



The following charts contain similar information to the monthly requirements above but we have extended it over the next 12 months. The charts provide an estimate of the response requirements by day/night and include information on existing contracts. The grey/blue shaded area is the approximate response that will need to be procured. The minimum dynamic requirement for primary, secondary and high response over the 12 month period is 450MW.

Key points

- The response requirement is greater during the summer than winter.
- The response requirement is greater overnight than during the daytime
- The secondary response requirement is greater than primary or high requirements throughout the year
- The primary and secondary response requirements are greater than the minimum dynamic throughout the year. A static response service could therefore be beneficial in meeting the total requirement.
- For High frequency response, the minimum dynamic response (450MW) is greater than the requirement throughout the year. A static response service would not be beneficial in meeting the requirement.

Contract Requirement Volume Tables

The following tables state the predicted amount, in MW, of response we need to procure for January and the future.

January requirement:

Settlement Period	Dynamic Amount required (MW)		
	Primary	Secondary	High
1	673	647	619
2	674	650	619
3	675	648	619
4	674	651	619
5	673	662	619
6	673	671	619
7	676	673	619
8	690	681	619
9	754	691	619
10	819	699	619
11	865	702	619
12	894	699	619
13	860	697	719
14	818	668	719
15	479	422	719
16	431	388	719
17	423	372	719
18	384	362	719
19	328	357	619
20	242	343	619
21	165	331	619
22	104	318	619
23	104	309	819
24	105	300	819
25	104	292	619
26	103	284	619
27	104	281	619
28	104	92	619
29	104	89	619
30	104	88	619
31	105	182	719
32	104	361	719
33	104	396	719
34	104	367	719
35	104	344	719
36	104	336	719
37	104	339	669
38	105	348	669
39	105	328	719
40	105	342	719
41	104	247	819
42	104	266	819
43	104	166	719
44	104	190	719
45	103	156	719
46	104	181	719
47	594	517	619
48	675	628	619

Settlement Period	Static Amount required (MW)		
	Primary	Secondary	High
1	0	16	0
2	0	18	0
3	0	17	0
4	0	19	0
5	0	26	0
6	0	33	0
7	0	34	0
8	6	39	0
9	29	46	0
10	54	52	0
11	73	53	0
12	91	51	0
13	132	105	0
14	137	85	0
15	272	251	0
16	248	227	0
17	246	217	0
18	216	210	0
19	175	207	0
20	109	197	0
21	48	189	0
22	0	180	0
23	0	106	0
24	0	100	0
25	0	162	0
26	0	157	0
27	0	155	0
28	0	27	0
29	0	25	0
30	0	24	0
31	0	88	0
32	0	209	0
33	0	233	0
34	0	214	0
35	0	198	0
36	0	193	0
37	0	195	0
38	0	201	0
39	0	187	0
40	0	197	0
41	0	132	0
42	0	145	0
43	0	77	0
44	0	93	0
45	0	70	0
46	0	87	0
47	0	0	0
48	0	3	0

12 month requirement

Daytime	Amount required (MW)		
	Primary	Secondary	High
Jan-2016	291	556	82
Feb-2016	291	556	82
Mar-2016	503	574	117
Apr-2016	738	805	191
May-2016	984	863	257
Jun-2016	1044	881	278
Jul-2016	1014	882	278
Aug-2016	1177	1036	260
Sep-2016	1063	1003	227
Oct-2016	909	949	174
Nov-2016	687	905	136
Dec-2016	743	894	130

Overnight	Amount required (MW)		
	Primary	Secondary	High
Jan-2016	955	839	180
Feb-2016	955	839	180
Mar-2016	1161	942	209
Apr-2016	1182	1200	254
May-2016	1542	1261	324
Jun-2016	1571	1268	332
Jul-2016	1620	1270	335
Aug-2016	1581	1268	332
Sep-2016	1490	1255	321
Oct-2016	1367	1228	291
Nov-2016	1247	1198	256
Dec-2016	1184	1175	230

If you have any queries, suggestions or feedback on the content or format of the new report please contact your account manager or

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