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STOR Market Information Report TR38

26 July 2019

Contents

STOR assessment analysis	. 3
Introduction	. 3
Split of flexible and committed for accepted tenders	. 3
Tenders received and assessment results	. 4
Successful tenders	. 5
Expectations for TR39	. 5
Prices	. 6
Total contracted position	10

Foreword

Welcome to the TR38 Market Information Report which covers tenders for delivery to the of end of STOR year 14, April 2021. As part of the recent update to the contract terms, we have published greater details about STOR tender which we hope provides more understanding of the STOR market.

We are continuing to develop the new despatch system for NBM providers, ASDP, and existing providers should be in contact with our technical team to share their plans for testing and deployment. Further material on ASDP can be found under the PAS Documents section on this page. If you have not been in contact with our technical team or are a new provider planning to participate in future tender rounds, you can contact the team at box.support.pas@nationalgrid.com

December 2019 will see the implementation of Wider Access opening up opportunities for increasing number of market participants to offer flexibility to the System Operator. We are seeking a derogation of 12 months for the implementation of TERRE, with a view to go-live in June 2020. Further details on the request for derogation, can be found in this <u>letter</u>. Prequalification for both markets has now begun and can be completed from this <u>page</u>. Further guidance is also available on Elexon's <u>website</u>.

Thanks.

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Useful Links

For further details on STOR please see our website here

Assessment principles can be found here

Our general description of STOR can be found here

The STOR tender round dates can be found here

Frequently asked questions document is found here

STOR assessment analysis

Introduction

This market information report is produced after each tender round and is designed to give existing and potential STOR participants an overall view of the tenders received in tender round 38 (TR38). It gives details of the tendered utilisation and availability prices, our forward contracted position and further details on the type and dynamics of the tendered units.

This report is under continuous review and development, if you have any comments or suggestions of information you would like to see in future issues of this report, please contact your account manager.

We have removed some charts from this market information report but please contact us if this is analysis that you previously found helpful.

Split of flexible and committed for accepted tenders

To make sure we meet our requirements for STOR in real time we look at historic availability profiles from committed and flexible providers to help determine the volume of STOR tenders to procure during the tender rounds. During the assessment, we apply de-rating percentages to the tendered megawatts (MW) to develop a clearer understanding of the actual volume that will be available in real time. The percentages used are: balancing mechanism committed (BM-C) 90%, non-balancing mechanism committed (NBM-C) 85%, non-balancing mechanism flexible (NBM-F) non-winter 25% NBM-F winter 0%. These figures give the average outturn availability over the various seasons where the actual availability over the peak winter evenings has been significantly lower for flexible. When considering the capacity accepted and tendered it is important to think of it not in absolute volumes but instead the de-rated volume. Whilst there is currently no fixed limit to the amount of committed or flexible we are willing to accept, committed units are key in meeting the requirement during those periods of low non-committed availability and as such we value committed units particularly in the winter seasons.

The two versions of the chart below demonstrate this concept.

Breakdown of Accepted Flexible and Committed MW per season

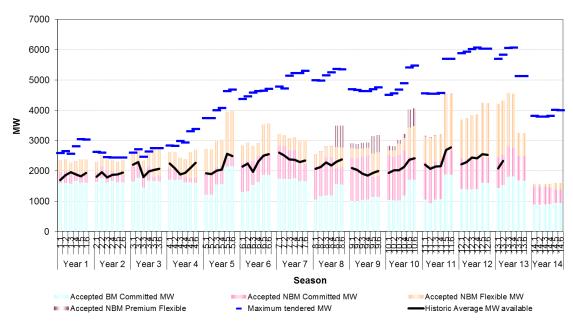


Figure 1 - breakdown of accepted flexible and committed MW per season

Figure 1 gives a breakdown of the accepted flexible and committed MW per season since the start of the STOR service. The blue line is the sum of the maximum tendered MW from unique units

from all tender rounds for each season. The black line on the chart represents the outturn average availability for each season. Premium flexible tenders are included in the flexible category for this chart.

5000 2000 2000 0 100

Breakdown of Accepted Flexible and Committed De-rated MW per season

Figure 2 - breakdown of accepted flexible and committed de-rated MW per season

Figure 2 applies the de-rating factors from above to the data in figure 1. This gives a much closer match between total de-rated MW and the actual outturn available MW.

Tenders received and assessment results

For year 13 and 14 the total tendered volume was large from a mix of BM and non-BM parties.

	TR38 Ten	ders (MW)				Already c	
Season					De-rated		De-rated
Number	BM-C	NBM-C	NBM-F	Total	Total	Total	Total
13.3	570	0	1214	1784	1120	3122	2376
13.4	570	45	1214	1829	1158	3091	2350
13.5	1506	74	44	1624	1429	2525	1585
13.6	1501	74	44	1619	1425	2524	1584
14.1	1861	689	0	2550	2261	826	659
14.2	1849	687	0	2536	2248	816	657
14.3	1856	687	0	2543	2254	817	658
14.4	1865	650	39	2554	2251	818	658
14.5	2107	660	80	2847	2477	840	602
14.6	2101	660	80	2841	2472	840	602

Table 1 summarises the tenders received, it also summarises the total contracted and de-rated. A full breakdown of contracted and tendered data can be found in the excel file.

	TR38 Ten	ders Accep	oted (MW)			Remaining Requirement (MW)
Season					De-rated	
Number	BM-C	NBM-C	NBM-F	Total	Total	Total
13.3	270	0	1186	1456	836	-
13.4	270	0	1186	1456	836	-
13.5	676	14	44	734	631	100
13.6	671	14	44	729	627	100
14.1	632	121	0	753	672	1000
14.2	630	119	0	749	668	1000
14.3	632	119	0	751	670	1000
14.4	641	82	39	762	666	1000
14.5	642	45	80	767	636	1100
14.6	641	45	80	766	635	1100

Table 2 summarises the accepted units and the approximate requirement remaining for the next tender rounds.

Successful tenders

Year 13 (2019-20)

During this tender round, we were looking to fulfil our 13.5 and 13.6 requirement where economic to do so. To do this we accepted additional volume for seasons 13.3 and 13.4 to allow us to access the best value tenders.

Year 14 (2020-21)

This was the second opportunity for year 14. All the successful tenders received were restricted tenders, and we accepted only the most economic. We have a large remaining requirement and we will fulfil this over the coming tender rounds.

Expectations for TR39

Our remaining requirements that we will look to procure in TR39 is:

- For Year 13, a small proportion of our requirement remains for 13.5 and 13.6 of around 100MW. This is our last chance to buy for these seasons and we will accept only the most economic tenders.
- For Year 14, 1000MW remains for the summer seasons and 1100MW for the winter seasons. We intend to procure only the most economic tenders.

1	1	1	1			1	1	1	
	Units	Units	MW	MW		Units	Units	MW	MW
SCOTLAND	tendered	Accepted	tendered	Accepted	SOUTH	tendered	Accepted	tendered	Accepted
13.1	-	-	-	-	13.1	-	-	-	-
13.2	-	-	-	-	13.2	-	-	-	-
13.3	-	-	-	-	13.3	69	69	558	558
13.4	-	-	-	-	13.4	70	69	603	558
13.5	-	-	-	-	13.5	10	3	419	259
13.6	-	-	-	-	13.6	10	3	414	254
14.1	-	-	-	-	14.1	27	12	1,071	471
14.2	-	-	-	-	14.2	27	12	1,058	468
14.3	-	-	-	-	14.3	27	12	1,065	470
14.4	-	-	-	-	14.4	27	12	1,075	480
14.5	-	-	-	-	14.5	29	12	1,127	483
14.6	-	-	-	-	14.6	29	12	1,121	482
	Units	Units	MW	MW		Units	Units	MW	MW
NORTH	tendered	Accepted	tendered	Accepted	MULTIPLE	tendered	Accepted	tendered	Accepted
13.1	-	-	-	-	13.1	-	-	-	-
13.2	-	-	-	-	13.2	-	-	-	-
13.3	88	83	1,155	827	13.3	12	12	71	71
13.4	88	83	1,155	827	13.4	12	12	71	71
13.5	12	7	1,169	439	13.5	9	9	36	36
13.6	12	7	1,169	439	13.6	9	9	36	36
14.1	14	5	1,122	277	14.1	34	1	357	5
14.2	14	5	1,121	276	14.2	34	1	357	5
14.3	14	5	1,121	276	14.3	34	1	357	5
14.4	14	5	1,122	277	14.4	34	1	357	5
14.5	19	5	1,358	279	14.5	35	1	362	5
14.6	19	5	1,358	279	14.6	35	1	362	5

Figure 3 - the number of units and the total MW tendered and accepted for each season and each location

Prices

Figures 4 to 8 below show scatter plots of availability and utilisation price for each tender and for each season. The data is broken down into:

- response time groups of less than 20 mins or greater than 20 mins;
- flexible or committed service; and
- accepted or rejected tenders.

These charts also show the accepted and rejected tenders from previous tender rounds. To keep this report short only seasons 2, 4 and 5 are displayed. The full data for all seasons is available in the excel file.

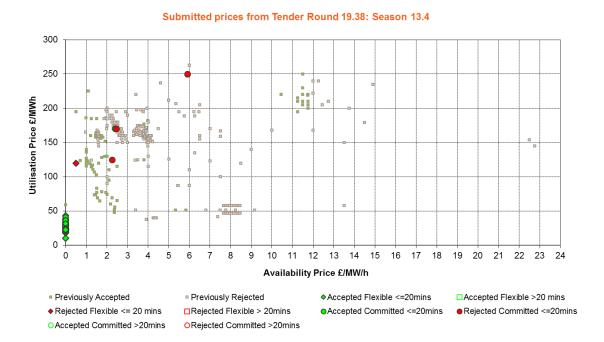


Figure 4 - availability and utilisation price plots season 13.4

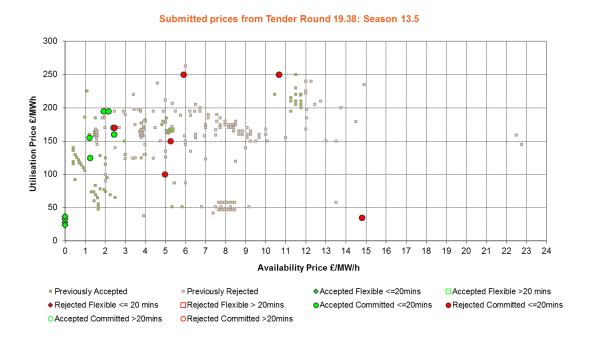


Figure 5 - availability and utilisation price plots season 13.5



Figure 6 - availability and utilisation price plots season 14.2

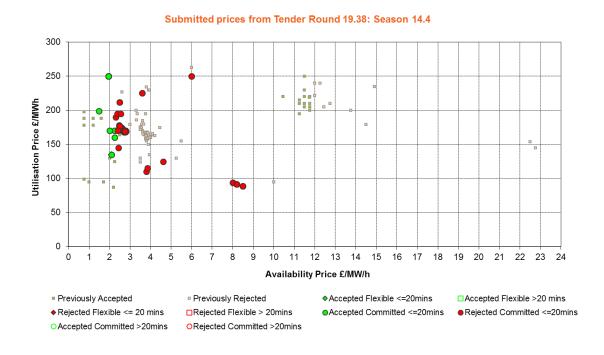


Figure 7 - availability and utilisation price plots season 14.4



Figure 8 - availability and utilisation price plots season 14.6

Table 3 is a summary of the highest accepted availability price for committed and flexible units. The table also presents the highest and lowest utilisation price accepted for each season as a guide. This information can be seen on the scatter plots above. We have included the highest availability price accepted that is not from an "all or nothing" tender. This is to help distinguish between "all or nothing" prices that were accepted due to their benefits in other seasons to those accepted for their benefit in the current season.

Table 3 Summary of accepted prices

Season Number	Marginal Availability price accepted £/MW/h	Marginal Availability price accepted non all or nothing £/MW/h	Highest Utilisation Price accepted £/MWh	Lowest Utilisation Price accepted £/MWh
13.3	£ 2.39	-	£ 170.00	£ 9.98
13.4	£ 2.39	-	£ 170.00	£ 9.98
13.5	£ 2.44	£ 2.44	£ 195.00	£ 23.85
13.6	£ 2.44	£ 2.44	£ 195.00	£ 23.85
14.1	£ 2.25	-	£ 250.00	£ 135.00
14.2	£ 2.25	-	£ 250.00	£ 135.00
14.3	£ 2.25	-	£ 250.00	£ 135.00
14.4	£ 2.25	-	£ 250.00	£ 135.00
14.5	£ 2.25	-	£ 250.00	£ 135.00
14.6	£ 2.25	-	£ 250.00	£ 135.00

We have removed the tendered availability price for all or nothing tenders chart. The data to create this can be found within the results appendix here.

The data around for the cumulative MW by utilisation price and response time can be found in the results appendix for each tender round. For this tender round, it has still been included in the excel spreadsheet accompanying this, please contact us if you would like to still see these charts.

Total contracted position

Figure 9 and table 4 below shows the breakdown of accepted volumes from all previous tender rounds across the seasons of Years 13 and 14 without de-rating.

5000 4500 4000 3500 Accepted STOR MW 2000 25000 2000 2000 1500 1000 500 13.1 13.2 13.5 13.6 14.1 14.2 14.5 14.6 Season Comm. MW TR12 Comm. MW TR34 Flex. MW TR34 Flex. MW TR36 Flex MW TR38 Comm. MW TR11 Flex. MW TR35 Comm. MW TR36 Comm. MW TR38

Overview of Accepted STOR Tenders for Seasons 13.1 - 14.6

Figure 9 year 13 and 14 summaries by tender round

	Season	13.1		13.2		13.3		13.4		13.5		13.6	
	Service Type	C	F	С	F	С	F	С	F	C	F	С	F
	TR11	116		116		116		116		116		116	
	TR12	273		271		272		273		274		274	
	TR34	368	272	366	261	366	261	368	261	271	456	271	456
Accepted MW	TR35	578	62	677	62	677	62	632	62	652	61	652	61
	TR36	629	148	629	148	629	148	629	148	140	203	140	203
	TR37	475	1287	469	1319	471	120	482	120	352		351	
	TR38					270	1186	270	1186	690	44	685	44
-	Total	2439	1769	2528	1790	2801	1777	2770	1777	2495	764	2489	764

	Season	14.1		14.2		14.3		14.4		14.5		14.6	
	Service Type	С	F	С	F	С	F	С	F	С	F	С	F
Accepted MW	TR11	116		116		116		116		116		116	
	TR12	273		271		272		273		274		274	
	TR37	342	95	345	84	345	84	345	84	300	150	300	150
	TR38	753		749		751		723	39	687	80	686	80
	Total	1484	95	1481	84	1484	84	1457	123	1377	230	1376	230

Table 4 year 13 and 14 summaries by tender round

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