

Enhanced Frequency Response 2016

Steve Miller Account Manager



Discussion topics

Summary of tenders received

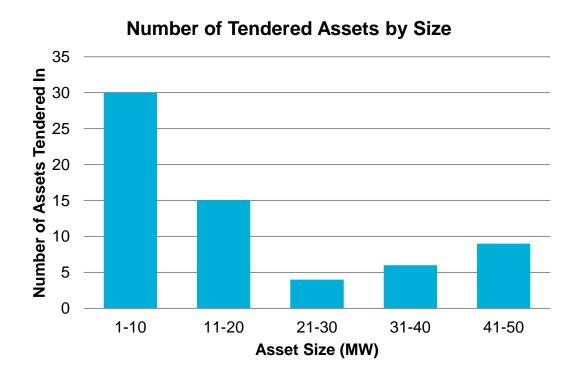
Contract progress

Future of EFR



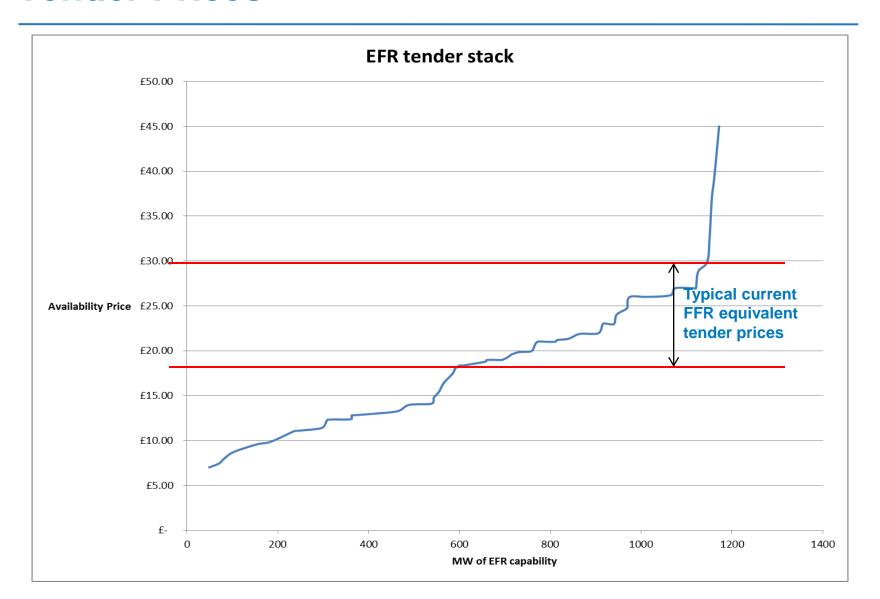
Summary of tenders received

- Tenders for 64 sites were submitted from 37 companies
- 61 are battery assets, 2 are DSR aggregation and 1 is thermal generation





Tender Prices



nationalgrid

Assessment Summary

Tenders cover multiple time frames with differing start dates, some are 24*7 others are unavailable during TRIAD periods and some have further custom timings

Assessment was carried out for every HH of the tender and the overall cost benefit of each tender is calculated

Forecasts for the value of creating pre-event (dynamic) and post event (static) response are consistent with the assessment of Firm Frequency Response Assessments

nationalgrid

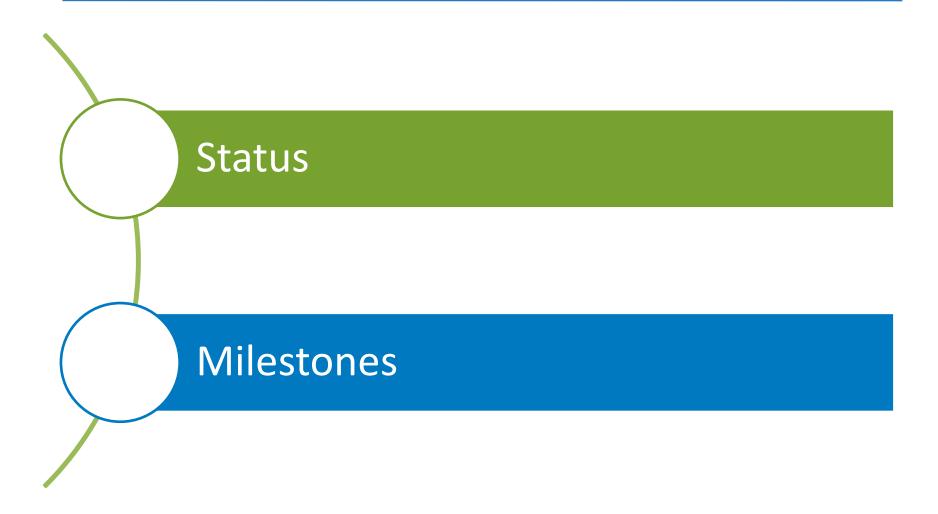
Assessment Summary

		Provider		Estimated		EFR	Service	Average price of tender £/MW
Provider Name	Site Location/Name	Type	(MW)	Start Date	£m	holding	Hours	of EFR/ h
EDF Energy Renewables	West Burton	Storage	49	Dec-17	12.04	1719.31	35088	7.00
Reflewables	West Buiton	Storage	48	Dec-17	12.04	1719.31	33000	7.00
Vattenfall	Pen Y Cymoedd	Storage	22	. Apr-17	5.75	771.94	35088	7.45
Low Carbon	Cleator	Storage	10	Dec-17	2.68	337.60	33760	7.94
Low Carbon	Glassenbury	Storage	40	Mar-18	12.67	1350.56	33764	9.38
E.ON UK	Blackburn Meadows	Storage	10	Nov-17	3.89	350.88	35088	11.09
Element Power	TESS	Storage	25	Feb-18	10.08	877.20	35088	11.49
RES	RESEFR7-PT	Storage	35	Feb-18	14.65	1228.08	35088	11.93
Belectric	Nevendon	Storage	10	Oct-17	4.20	350.88	35088	11.97

The table above summaries the eight tenders that have been accepted giving 201MW of EFR at a total cost of £65.95m with an average price of £9.44/MW of EFR/h



Contract development





Future of EFR



Power Responsive

Storage Working Group

nationalgrid

