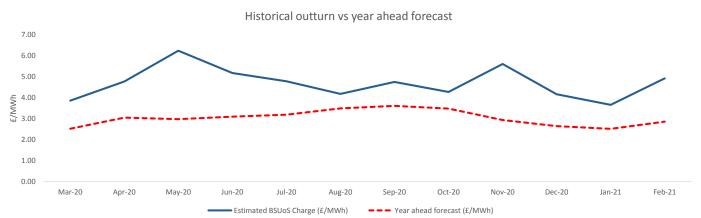
BSUoS Outturn

nationalgridESO

£/MWh
4.92
4.63
2.88

The outturn BSUoS for February was higher than January and higher than forecast. Operating reserve costs remained high on the back of tight margins but were lower than January. Constraint costs rose significantly following the loss of the Western Link HVDC mid-month, resulting in a larger number of actions required to manage the Cheviot congestion.

The blue line on the chart shows the estimated monthly average BSUoS charge for the past 12 months. The red line shows our forecast for each month, made at year ahead. The table shows a breakdown of the elements that make up the BSUoS charge (including volume), broken down by cost category. The total cost divided by the volume gives the estimated average charge.



	4.8 3.9	07-401 7.6 3.8 3.4	07-Inr 5.7 3.1	07-3ng -50	Sep-20	0ct-50 10.9	02-70N 7.7	Dec-30 12.3	6.5	Feb-21
4.9 2.4 3 59.	4.8 3.9	3.8	3.1			10.9	7.7	12.3	6.5	78
2.4 3 59.	3.9		-	10						
3 59.		3.4		-	8.7	11.1	13.8	18.0	50.3	23.4
	67 5		3.1	2.7	2.7	3.1	3.8	4.1	3.0	2.7
	07.5	74.6	69.4	41.9	43.1	59.5	119.9	60.6	32.8	36.9
) 1.5	17.4	0.5	0.5	0.6	10.7	8.0	0.9	17.3	1.3	57.6
9 5.1	3.1	5.7	7.9	13.1	19.0	17.3	15.9	13.2	6.5	6.4
0.6	19.0	13.7	21.8	22.4	17.9	0.9	2.1	1.4	0.5	0.2
0.6	0.6	0.2	0.2	0.5	0.6	0.5	0.4	0.3	0.0	0.3
7.4	7.8	8.8	7.1	8.5	9.7	9.2	10.6	11.0	11.4	9.3
2 13.	8.7	7.0	8.1	7.2	8.2	12.6	14.4	15.6	15.0	11.0
1.9	2.6	1.8	2.5	1.9	1.9	1.6	1.6	1.5	1.2	1.4
6.4	5.9	4.8	4.7	4.5	4.1	4.5	5.4	5.9	5.3	5.4
6.6	5.4	4.0	1.8	2.6	1.9	3.5	1.2	1.0	3.0	0.7
3.5	3.8	3.6	3.4	3.3	8.9	7.6	7.9	4.5	8.0	3.9
9 125	9 162.9	139.7	139.3	120.9	145.8	150.3	205.4	166.6	144.9	167.2
30.	29.1	30.5	33.1	33.4	34.5	39.6	39.9	44.6	46.5	38.7
7 18.	18.9	18.3	18.9	18.9	18.3	18.9	18.3	18.9	18.9	17.1
3 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	4.8
5 4.7	6.24	5.17	4.78	4.18	4.75	4.28	5.61	4.16	3.66	4.92
53 3	2.9	3.10	3.19	3.49	3.61	3.48	2.94	2.65	2.52	2.86
	.0 1.5 .9 5.1 3 0.6 4 0.6 9 7.4 .2 13.3 4 1.9 5 6.4 5 6.6 8 3.5 1.9 125.3 .0 30.2 .7 18.3 .3 0.0 0 0.0 36 4.77	.0 1.5 17.4 .9 5.1 3.1 3 0.6 19.0 4 0.6 0.6 9 7.4 7.8 .2 13.3 8.7 4 1.9 2.6 5 6.4 5.9 5 6.6 5.4 8 3.5 3.8 1.9 125.9 162.9 .0 30.2 29.1 .7 18.3 18.9 .3 0.0 0.0 0 0.0 0.0 36 4.77 6.24	0 1.5 17.4 0.5 .9 5.1 3.1 5.7 3 0.6 19.0 13.7 4 0.6 0.6 0.2 9 7.4 7.8 8.8 .2 13.3 8.7 7.0 4 1.9 2.6 1.8 5 6.4 5.9 4.8 5 6.6 5.4 4.0 8 3.5 3.8 3.6 1.9 125.9 162.9 139.7 .0 30.2 29.1 30.5 .7 18.3 18.9 18.3 .3 0.0 0.0 0.0 0 0.0 0.0 0.0 36 4.77 6.24 5.17	0 1.5 17.4 0.5 0.5 9 5.1 3.1 5.7 7.9 3 0.6 19.0 13.7 21.8 4 0.6 0.6 0.2 0.2 9 7.4 7.8 8.8 7.1 $.2$ 13.3 8.7 7.0 8.1 4 1.9 2.6 1.8 2.5 5 6.4 5.9 4.8 4.7 5 6.6 5.4 4.0 1.8 8 3.5 3.8 3.6 3.4 1.9 125.9 162.9 139.7 139.3 $.0$ 30.2 29.1 30.5 33.1 $.7$ 18.3 18.9 18.3 18.9 $.3$ 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 1.5 17.4 0.5 0.5 0.6 9 5.1 3.1 5.7 7.9 13.1 3 0.6 19.0 13.7 21.8 22.4 4 0.6 0.6 0.2 0.2 0.5 9 7.4 7.8 8.8 7.1 8.5 $.2$ 13.3 8.7 7.0 8.1 7.2 4 1.9 2.6 1.8 2.5 1.9 5 6.4 5.9 4.8 4.7 4.5 5 6.6 5.4 4.0 1.8 2.6 8 3.5 3.8 3.6 3.4 3.3 1.9 162.9 139.7 139.3 120.9 $.0$ 30.2 29.1 30.5 33.1 33.4 $.7$ 18.3 18.9 18.9 18.9 $.3$ 0	0 1.5 17.4 0.5 0.5 0.6 10.7 9 5.1 3.1 5.7 7.9 13.1 19.0 3 0.6 19.0 13.7 21.8 22.4 17.9 4 0.6 0.6 0.2 0.2 0.5 0.6 9 7.4 7.8 8.8 7.1 8.5 9.7 2 13.3 8.7 7.0 8.1 7.2 8.2 4 1.9 2.6 1.8 2.5 1.9 1.9 5 6.4 5.9 4.8 4.7 4.5 4.1 5 6.6 5.4 4.0 1.8 2.6 1.9 8 3.5 3.8 3.6 3.4 3.3 8.9 1.9 125.9 162.9 139.7 139.3 120.9 145.8 $.0$ 30.2	0 1.5 17.4 0.5 0.6 10.7 8.0 9 5.1 3.1 5.7 7.9 13.1 19.0 17.3 3 0.6 19.0 13.7 21.8 22.4 17.9 0.9 4 0.6 0.6 0.2 0.5 0.6 0.5 9 7.4 7.8 8.8 7.1 8.5 9.7 9.2 2 13.3 8.7 7.0 8.1 7.2 8.2 12.6 4 1.9 2.6 1.8 2.5 1.9 1.9 1.6 5 6.4 5.9 4.8 4.7 4.5 4.1 4.5 5 6.6 5.4 4.0 1.8 2.6 1.9 3.5 8 3.5 3.8 3.6 3.4 3.3 8.9 7.6 1.9 125.9 <t< th=""><th>0.0$1.5$$17.4$$0.5$$0.5$$0.6$$10.7$$8.0$$0.9$$9$$5.1$$3.1$$5.7$$7.9$$13.1$$19.0$$17.3$$15.9$$3$$0.6$$19.0$$13.7$$21.8$$22.4$$17.9$$0.9$$2.1$$4$$0.6$$0.6$$0.2$$0.2$$0.5$$0.6$$0.5$$0.4$$9$$7.4$$7.8$$8.8$$7.1$$8.5$$9.7$$9.2$$10.6$$.2$$13.3$$8.7$$7.0$$8.1$$7.2$$8.2$$12.6$$14.4$$4$$1.9$$2.6$$1.8$$2.5$$1.9$$1.9$$1.6$$1.6$$5$$6.4$$5.9$$4.8$$4.7$$4.5$$4.1$$4.5$$5.4$$5$$6.6$$5.4$$4.0$$1.8$$2.6$$1.9$$3.5$$1.2$$8$$3.5$$3.8$$3.6$$3.4$$3.3$$8.9$$7.6$$7.9$$1.9$$125.9$$162.9$$139.7$$139.3$$120.9$$145.8$$150.3$$205.4$$.0$$30.2$$29.1$$30.5$$33.1$$33.4$$34.5$$39.6$$39.9$$.7$$18.3$$18.9$$18.3$$18.9$$18.3$$18.9$$18.3$$3$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$$0.0$<!--</th--><th>0.0$1.5$$17.4$$0.5$$0.5$$0.6$$10.7$$8.0$$0.9$$17.3$$9$$5.1$$3.1$$5.7$$7.9$$13.1$$19.0$$17.3$$15.9$$13.2$$3$$0.6$$19.0$$13.7$$21.8$$22.4$$17.9$$0.9$$2.1$$1.4$$4$$0.6$$0.6$$0.2$$0.2$$0.5$$0.6$$0.5$$0.4$$0.3$$9$$7.4$$7.8$$8.8$$7.1$$8.5$$9.7$$9.2$$10.6$$11.0$$.2$$13.3$$8.7$$7.0$$8.1$$7.2$$8.2$$12.6$$14.4$$15.6$$4$$1.9$$2.6$$1.8$$2.5$$1.9$$1.9$$1.6$$1.6$$1.5$$5$$6.4$$5.9$$4.8$$4.7$$4.5$$4.1$$4.5$$5.4$$5.9$$5$$6.6$$5.4$$4.0$$1.8$$2.6$$1.9$$3.5$$1.2$$1.0$$8$$3.5$$3.8$$3.6$$3.4$$3.3$$8.9$$7.6$$7.9$$4.5$$1.9$$125.9$$162.9$$139.7$$139.3$$120.9$$145.8$$150.3$$205.4$$166.6$$0$$30.2$$29.1$$30.5$$33.1$$33.4$$34.5$$39.6$$39.9$$44.6$$7$$18.3$$18.9$$18.3$$18.9$$18.3$$18.9$$18.3$$18.9$$3$$0.0$$0.0$$0.0$$0.0$$0.0$</th><th>0$1.5$$17.4$$0.5$$0.5$$0.6$$10.7$$8.0$$0.9$$17.3$$1.3$$9$$5.1$$3.1$$5.7$$7.9$$13.1$$19.0$$17.3$$15.9$$13.2$$6.5$$3$$0.6$$19.0$$13.7$$21.8$$22.4$$17.9$$0.9$$2.1$$1.4$$0.5$$4$$0.6$$0.6$$0.2$$0.2$$0.5$$0.6$$0.5$$0.4$$0.3$$0.0$$9$$7.4$$7.8$$8.8$$7.1$$8.5$$9.7$$9.2$$10.6$$11.0$$11.4$$.2$$13.3$$8.7$$7.0$$8.1$$7.2$$8.2$$12.6$$14.4$$15.6$$15.0$$4$$1.9$$2.6$$1.8$$2.5$$1.9$$1.9$$1.6$$1.6$$1.5$$1.2$$5$$6.4$$5.9$$4.8$$4.7$$4.5$$4.1$$4.5$$5.4$$5.9$$5.3$$5$$6.6$$5.4$$4.0$$1.8$$2.6$$1.9$$3.5$$1.2$$1.0$$3.0$$8$$3.5$$3.8$$3.6$$3.4$$3.3$$8.9$$7.6$$7.9$$4.5$$8.0$$1.9$$125.9$$162.9$$139.7$$139.3$$120.9$$145.8$$150.3$$205.4$$166.6$$144.9$$0$$30.2$$29.1$$30.5$$33.1$$33.4$$34.5$$39.6$$39.9$$44.6$$46.5$$.7$$18.3$$18.9$</th></th></t<>	0.0 1.5 17.4 0.5 0.5 0.6 10.7 8.0 0.9 9 5.1 3.1 5.7 7.9 13.1 19.0 17.3 15.9 3 0.6 19.0 13.7 21.8 22.4 17.9 0.9 2.1 4 0.6 0.6 0.2 0.2 0.5 0.6 0.5 0.4 9 7.4 7.8 8.8 7.1 8.5 9.7 9.2 10.6 $.2$ 13.3 8.7 7.0 8.1 7.2 8.2 12.6 14.4 4 1.9 2.6 1.8 2.5 1.9 1.9 1.6 1.6 5 6.4 5.9 4.8 4.7 4.5 4.1 4.5 5.4 5 6.6 5.4 4.0 1.8 2.6 1.9 3.5 1.2 8 3.5 3.8 3.6 3.4 3.3 8.9 7.6 7.9 1.9 125.9 162.9 139.7 139.3 120.9 145.8 150.3 205.4 $.0$ 30.2 29.1 30.5 33.1 33.4 34.5 39.6 39.9 $.7$ 18.3 18.9 18.3 18.9 18.3 18.9 18.3 3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 </th <th>0.0$1.5$$17.4$$0.5$$0.5$$0.6$$10.7$$8.0$$0.9$$17.3$$9$$5.1$$3.1$$5.7$$7.9$$13.1$$19.0$$17.3$$15.9$$13.2$$3$$0.6$$19.0$$13.7$$21.8$$22.4$$17.9$$0.9$$2.1$$1.4$$4$$0.6$$0.6$$0.2$$0.2$$0.5$$0.6$$0.5$$0.4$$0.3$$9$$7.4$$7.8$$8.8$$7.1$$8.5$$9.7$$9.2$$10.6$$11.0$$.2$$13.3$$8.7$$7.0$$8.1$$7.2$$8.2$$12.6$$14.4$$15.6$$4$$1.9$$2.6$$1.8$$2.5$$1.9$$1.9$$1.6$$1.6$$1.5$$5$$6.4$$5.9$$4.8$$4.7$$4.5$$4.1$$4.5$$5.4$$5.9$$5$$6.6$$5.4$$4.0$$1.8$$2.6$$1.9$$3.5$$1.2$$1.0$$8$$3.5$$3.8$$3.6$$3.4$$3.3$$8.9$$7.6$$7.9$$4.5$$1.9$$125.9$$162.9$$139.7$$139.3$$120.9$$145.8$$150.3$$205.4$$166.6$$0$$30.2$$29.1$$30.5$$33.1$$33.4$$34.5$$39.6$$39.9$$44.6$$7$$18.3$$18.9$$18.3$$18.9$$18.3$$18.9$$18.3$$18.9$$3$$0.0$$0.0$$0.0$$0.0$$0.0$</th> 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1.5 5 6.4 5.9 4.8 4.7 4.5 4.1 4.5 5.4 5.9 5 6.6 5.4 4.0 1.8 2.6 1.9 3.5 1.2 1.0 8 3.5 3.8 3.6 3.4 3.3 8.9 7.6 7.9 4.5 1.9 125.9 162.9 139.7 139.3 120.9 145.8 150.3 205.4 166.6 0 30.2 29.1 30.5 33.1 33.4 34.5 39.6 39.9 44.6 7 18.3 18.9 18.3 18.9 18.3 18.9 18.3 18.9 3 0.0 0.0 0.0 0.0 0.0	0 1.5 17.4 0.5 0.5 0.6 10.7 8.0 0.9 17.3 1.3 9 5.1 3.1 5.7 7.9 13.1 19.0 17.3 15.9 13.2 6.5 3 0.6 19.0 13.7 21.8 22.4 17.9 0.9 2.1 1.4 0.5 4 0.6 0.6 0.2 0.2 0.5 0.6 0.5 0.4 0.3 0.0 9 7.4 7.8 8.8 7.1 8.5 9.7 9.2 10.6 11.0 11.4 $.2$ 13.3 8.7 7.0 8.1 7.2 8.2 12.6 14.4 15.6 15.0 4 1.9 2.6 1.8 2.5 1.9 1.9 1.6 1.6 1.5 1.2 5 6.4 5.9 4.8 4.7 4.5 4.1 4.5 5.4 5.9 5.3 5 6.6 5.4 4.0 1.8 2.6 1.9 3.5 1.2 1.0 3.0 8 3.5 3.8 3.6 3.4 3.3 8.9 7.6 7.9 4.5 8.0 1.9 125.9 162.9 139.7 139.3 120.9 145.8 150.3 205.4 166.6 144.9 0 30.2 29.1 30.5 33.1 33.4 34.5 39.6 39.9 44.6 46.5 $.7$ 18.3 18.9

BSUoS Forecast

Average BSUoS charge £/MWh Mar-21 3.88 2020/21 4.63 2021/22 3.95 Next 12 months 3.89

 outage plan and adjusted the constraint costs
 6.00

 accordingly. When producing a forecast of
 5.00

 constraint costs, we apply a historical wind
 5.00

 orofile for each month. Variations in the
 5.00

 constraint costs month on month will therefore
 4.00

 due to outages in addition to the wind level
 3.00

 applied. As such these are indicative of where
 3.00

 costs may outturn but variations are expected
 3.00

 due to outturn wind not following a particular
 3.00

 ristorical profile exactly. Additionally,
 2.00

 Reserve. Energy Imbalance and Response costs
 0.00

 co reflect the experience of this year.
 1.00

We have added an additional line to the forecast from Apr 21 to Mar 22 to account for the deferred BSUOS as per CMP345/350.

0.00

From April 21 CMP333 comes into effect changing the demand base to gross demand (NB. This has been included in the forecast figures for some time).

The chart shows the average monthly BSUOS forecast for the next 24 months. The grey band shows the upper and lower range of the forecast. The forecast uses a combination of forecast models and historical data. Constraint costs are adjusted in line with major changes to the outage plan, system faults, and commissioning programmes. The other energy cost categories are forecast using a baseline of historical trends with adjustments for expected changes in system operation or balancing services markets.

nationalgridESO

24 month rolling forecast with error bands

Mar-21 Apr-21 Jun-21 Jun-21 Jun-21 Jun-21 Jun-21 Jun-21 Sep-21 Oct-21 Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 Mar-22 Jun-22 Jun-22 Sep-22 Oct-22 Nov-22 Dec-22 Jan-23 Feb-23

Month ž Ž Ž Ž Ž Ž Ž Ž Ž Ž Š Š Ž <th>I 11.9 12.8 .9 21.1 20.9 5 7.6 6.5</th> <th>j j 11.1 11.9 18.9 21.1</th> <th>Nov</th> <th>Oct-22</th> <th>Sep-22</th> <th>g-22</th> <th>2</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th colspan="15">Estimated BSUoS Charge (£/MWh)</th>	I 11.9 12.8 .9 21.1 20.9 5 7.6 6.5	j j 11.1 11.9 18.9 21.1	Nov	Oct-22	Sep-22	g-22	2								Estimated BSUoS Charge (£/MWh)														
Operating Reserve 26.0 15.3 12.0 10.8 11.0 11.2 14.1 16.4 16.1 18.9 21.1 20.9 18.2 15.3 12.0 10.8 11.0 11.4 16.4 16.1 18.9 21.1 20.9 18.2 15.3 12.0 10.8 11.0 11.4 16.4 16.1 18.9 21.1 20.9 18.2 15.3 12.0 10.8 11.0 11.2 14.1 16.4 16.1 18.9 21.1 20.9 18.2 15.3 12.0 10.8 11.2 14.1 16.4 16.1 18.9 21.1 20.9 18.2 15.3 12.0 10.8 11.2 14.1 16.4 16.1 18.0 STOR 4.9 5.2 5.6 5.4 6.0 5.8 6.3 6.2 7.4 7.5 7.6 6.5 7.4 7.5 7.6 6.5 7.4 7.5 7.6 6.5 7.4 7.5 7.6 6.5	.9 21.1 20.9 5 7.6 6.5	18.9 21.1	10.9			Ν	Jul-2		May-22	Apr-22	Mar-22	Feb-22	Jan-22	ú	Nov-21	Oct-21	Sep-21	Aug-21	Jul-21	Jun-21	May-21		L.	Month					
STOR 4.9 5.2 5.6 5.4 6.0 5.8 6.3 6.2 7.4 7.5 7.6 6.5 7.4 5.2 5.6 5.4 6.0 5.8 6.3 6.2 7.4 Constraints 62.0 32.5 40.1 44.8 37.1 49.0 58.7 88.5 97.2 83.1 57.4 113.7 117.4 38.9 39.5 39.2 40.5 53.1 56.0 5.4 6.0 5.8 6.3 6.2 7.4 7.5 7.6 6.5 7.4 13.7 117.4 38.9 39.5 39.2 40.5 43.5 52.6 5.4 6.0 5.8 6.3 6.2 7.4	5 7.6 6.5			11.3	10.1	8.7	9.3	8.2	7.9	5.5	0.8	14.6	13.9	13.2	12.8	13.4	12.0	10.7	11.3	10.2	9.9	7.5	5.9	Energy Imbalance					
Constraints 62.0 32.5 40.1 44.8 37.1 49.0 58.7 88.5 97.2 83.1 57.4 113.7 117.4 38.9 39.2 40.5 49.5 53.1 56.0 52.6 44.8 Negative Reserve 0.2 0.4 0.9 1.6 1.8 1.7 1.8 1.2 0.5 0.6 0.1 0.2 0.4 0.9 1.6 1.8 1.2 0.5			16.1	16.4	14.1	11.2	11.0	10.8	12.0	15.3	18.2	20.9	21.1	18.9	16.1	16.4	14.1	11.2	11.0	10.8	12.0	15.3	26.0	Operating Reserve					
Negative Reserve 0.2 0.4 0.9 1.6 1.8 1.7 1.8 1.2 0.5 0.6 0.1 0.2 0.4 0.9 1.6 1.8 1.7 1.8 1.2 0.5	5 39.8 45.3	7.5 7.6	7.4	6.2	6.3	5.8	6.0	5.4	5.6	5.2	7.4	6.5	7.6	7.5	7.4	6.2	6.3	5.8	6.0	5.4	5.6	5.2	4.9	STOR					
······································		46.5 39.8	52.6	56.0	53.1	49.5	40.5	39.2	39.5	38.9	117.4	113.7	57.4	83.1	97.2	88.5	58.7	49.0	37.1	44.8	40.1	32.5	62.0	Constraints					
Fast Reserve 9.2 9.0 9.0 8.8 9.1 9.4 10.0 10.3 8.7 9.7 9.0 9.0 8.8 9.1 9.4 10.0	5 0.6 0.1	0.5 0.6	0.5	1.2	1.8	1.7	1.8	1.6	0.9	0.4	0.2	0.1	0.6	0.5	0.5	1.2	1.8	1.7	1.8	1.6	0.9	0.4	0.2	Negative Reserve					
	.0 10.3 8.7	10.0 10.3	9.4	9.1	8.8	9.6	9.1	8.8	9.0	9.0	9.7	8.7	10.3	10.0	9.4	9.1	8.8	9.6	9.1	8.8	9.0	9.0	9.2	Fast Reserve					
Response 12.3 13.8 14.6 13.9 14.6 15.1 13.3 13.1 13.3 13.1 13.3 13.1 12.3 13.4 11.8 12.6 11.9 12.6 13.1 11.3 11.2 11.2 11.2 11.2	.3 11.1 10.5	11.3 11.1	11.2	11.2	11.3	13.1	12.6	11.9	12.6	11.8	13.4	12.3	13.1	13.3	13.1	13.3	13.3	15.1	14.6	13.9	14.6	13.8	12.3	Response					
Other Reserve 1.0 1.1 0.9 1.0 1.2 1.3 1.0 0.9 0.9 0.9 0.9 1.0 1.1 0.9 1.0 1.2 1.3 1.0 0.9 0.9 0.9 0.9 1.0 1.1 0.9 1.0 1.2 1.3 1.0 0.9 0.9	9 0.9 0.9	0.9 0.9	0.9	0.9	1.0	1.3	1.2	1.0	0.9	1.1	1.0	0.9	0.9	0.9	0.9	0.9	1.0	1.3	1.2	1.0	0.9	1.1	1.0	Other Reserve					
Reactive 5.9 6.7 7.5 7.0 6.9 6.8 6.6 6.7 6.5 7.1 7.0 5.7 6.1 6.7 7.5 7.0 6.9 6.8 6.6 6.7 6.5 7	1 7.0 5.7	7.1 7.0	6.5	6.7	6.6	6.8	6.9	7.0	7.5	6.7	6.1	5.7	7.0	7.1	6.5	6.7	6.6	6.8	6.9	7.0	7.5	6.7	5.9	Reactive					
Minor Components 0.7 3.0 3.0 2.6 2.6 1.5 1.1 2.1 0.6 1.0 -0.6 2.3 0.3 3.0 3.0 2.6 2.6 1.5 1.1 2.1 0.6 1.0	0 -0.6 2.3	1.0 -0.6	0.6	2.1	1.1	1.5	2.6	2.6	3.0	3.0	0.3	2.3	-0.6	1.0	0.6	2.1	1.1	1.5	2.6	2.6	3.0	3.0	0.7	Minor Components					
Black Start 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8	9 3.9 3.9	3.9 3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	Black Start					
Total BSUoS 132.0 98.3 107.1 110.0 105.3 127.5 161.6 128.4 159.2 135.3 189.6 178.5 100.8 102.5 104.7 113.0 118.0 125.0 119.9 11	3.6 113.7 117.6	118.6 113.7	119.9	125.0	118.0	113.0	104.7	100.5	102.5	100.8	178.5	189.6	135.3	159.2	168.4	161.6	127.5	116.6	105.3	110.0	107.1	98.3	132.0	Total BSUoS					
Esitmated BSUoS Vol (TWh) 40.5 40.0 37.9 35.7 36.4 36.7 38.2 40.7 48.8 49.7 53.7 44.7 46.0 40.0 37.9 35.7 36.4 36.7 38.2 40.7 48.8 49.4	.7 53.7 44.7	49.7 53.7	48.8	40.7	38.2	36.7	36.4	35.7	37.9	40.0	46.0	44.7	53.7	49.7	48.8	40.7	38.2	36.7	36.4	35.7	37.9	40.0	40.5	Esitmated BSUoS Vol (TWh)					
Estimated Internal BSUOS (£m) 18.9 23.3 24.0 23.3 24.0 23.4 24.0 23.3 24.0 2	.0 24.0 21.7	24.0 24.0	23.3	24.0	23.3	24.0	24.0	23.3	24.0	23.3	24.0	21.7	24.0	24.0	23.3	24.0	23.3	24.0	24.0	23.3	24.0	23.3	18.9	Estimated Internal BSUoS (£m)					
ESO Incentive 1.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 1.0 0.9	1.0 1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	ESO Incentive					
ALOMCP 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	0 0.0 0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	ALoMCP					
CMP345/350 Deferred Costs 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.6 1.8 1.6 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.8 1.6 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.8 1.6 1.8 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.8 1.6 1.8 1.8 1.7 1.8 1.7 1.8 1.8 1.6 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 <th></th> <th>1.8</th> <th>1.6</th> <th>1.8</th> <th>1.8</th> <th>1.7</th> <th>1.8</th> <th>1.7</th> <th>1.8</th> <th>1.8</th> <th>1.7</th> <th>1.8</th> <th>1.7</th> <th></th> <th>CMP345/350 Deferred Costs</th>											1.8	1.6	1.8	1.8	1.7	1.8	1.7	1.8	1.8	1.7	1.8	1.7		CMP345/350 Deferred Costs					
Estimated BSUoS Charge (£/MWh) 3.88 3.22 3.67 3.95 3.76 4.04 4.15 4.74 4.09 3.84 3.11 4.89 4.57 3.24 3.50 3.63 3.56 3.76 3.73 3.68 2.96 2.	39 2.58 3.14	2.89 2.58	2.06	3.68	3.73	3.76	3.56	3.63	3 50	3 24	4.57	4 90	2 1 1	2 0 4	4.00	4 74	4 15	4.04	2 76	2.05	2 67	2 22	2.00	Estimated DCUSC Change (C/MM/h)					

High Error Band (£/MWh)	3.89	3.56	4.40	4.83	4.93	5.16	5.22	5.87	5.25	5.05	4.40	6.26	5.94	4.63	4.90	5.04	4.98	5.15	5.09	5.02	4.40	4.39	4.20	4.76
Low Error Band (£/MWh)	3.87	2.89	2.93	3.07	2.59	2.92	3.07	3.62	2.92	2.63	1.82	3.53	3.19	1.85	2.10	2.22	2.15	2.37	2.36	2.34	1.52	1.39	0.96	1.52

BSUoS Volatility and Forecast Accuracy

nationalgridESO

The first chart shows the volatility of the cost categories that make up BSUoS. Constraint costs shown in red are the most variable and difficult to predict, mainly driven by the output of wind generation combined with the transmission outage plan at the time. A fault on the transmission system can add to the underlying volatility and cause large unforeseen increases in constraint costs.

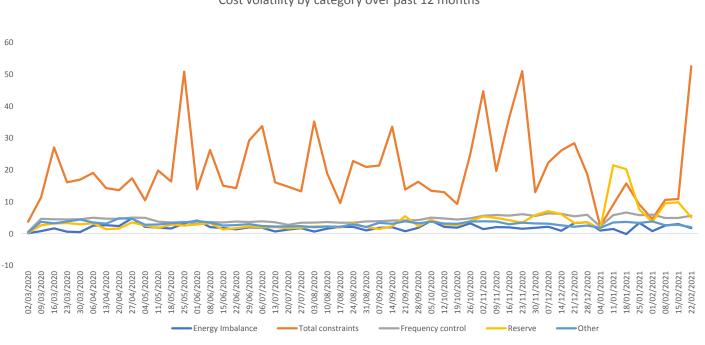
Reserve, shown in yellow, is generally stable but can have large deviations when the cost of generator margin increases significantly when generation is short.

Predicting increases in the cost of reserve is difficult at long timescales, and can have a significant impact on the average BSUOS charge.

Energy Imbalance is the other category that contributes to BSUOS volatility, which is the cost of residual balancing when the energy market is long or short. The other cost categories are relatively stable across the year, although there may be longer term trends that we consider.

The second chart shows the annual outturn BSUoS charge compared with the forecast made at 12 months ahead, and the absolute percentage error for each year.

The third chart shows the month ahead forecast compared with outturn and absolute percentage error. Month ahead is the month ahead of the reporting month.



Yearly History and APE



Month ahead forecast vs actual and APE



Cost volatility by category over past 12 months