

All Shippers & Interested Parties

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Dear Industry Participant

Notice of Revised NTS Entry Capacity QSEC Reserve and Step Prices

The next annual auctions for Quarterly System Entry Capacity (QSEC) will be held in March 2017. National Grid is publishing this notice of revised NTS transportation charges two months in advance of the next QSEC auction, consistent with our Licence and Uniform Network Code (UNC) obligations.

Our Transportation model has been updated to reflect changes in demand levels, the pipeline network, supply patterns, and the cost of investment through the expansion constant, all of which may affect the charges. Step prices have been recalculated in accordance with the methodology set out in the latest approved **Entry Capacity Release Methodology Statement (ECR)**¹.

Attached is an update to Appendix D of the NTS Gas Transportation Charges Statement 1 October 2016, which details the reserve and step prices for use in the March 2017 QSEC auction and replaces any previous versions of this appendix. **Table 1** below summarises the change in reserve prices at each NTS Aggregate System Entry Point (ASEP).

The main changes to note compared to the QSEC 2016 are as follows:

- Forecast peak day demand has increased by approximately 2%. We have used the 'Updated Forecast' data given in the Ten Year Statement 2016, which is National Grid's shorter term view of the current trajectory of energy supply and demands.
- Total gas supply has been increased to match demand using the supply balancing rules detailed in the UNC Section Y Charging Methodologies 2.5.1 (c).
- The expansion constant, which represents the average cost of investment in pipe and compression, has been updated in line with inflation forecasts and has increased by 3.4%. Those ASEPs furthest away from centres of demand are more sensitive to changes in the expansion constant as an increase in supply from these ASEPs would require greater investment in order to transport gas to demand.

¹ <http://www2.nationalgrid.com/UK/Industry-information/Gas-capacity-methodologies/Entry-Capacity-Release-Methodology-Statement/>

- In general, ASEPs have seen an increase in their reserve price. Forecast supply and demand changes have resulted in lower adjustment factors. The average Exit costs have decreased and so the adjustment factor that is used to achieve a 50:50 split of equal costs between Entry and Exit users, has decreased on the Entry side. However, the effect of the expansion factor has outweighed this effect and caused most prices to increase slightly.
- The exceptions are Milford Haven and Isle of Grain terminals.
- Although there is an increase in supplies from the Isle of Grain terminal due to the national increase in peak demand, a forecast reduction in demand in the south east, mainly at power stations, means that the flows from the Isle of Grain terminal have to move further into the system to meet demand and hence an increase in the Long Run Marginal Cost compared to last year. This has caused the reserve price to increase.
- At Milford Haven supplies and demands have both increased and the LRMC remains the same as last year. It is an increase in the adjustment factor on the Entry side (average Exit costs have increased) that has caused to reserve price to rise.

For all Entry points an **Estimated Project Value** (£m) has also been calculated for each Incremental Capacity level and this information has been added to this notice and is also available in Appendix E of the Transportation Charging Statement. The net present value (NPV) of the revenues from incremental bids is required to be at least 50% of the estimated project value in order to trigger the release of incremental obligated Entry Capacity (as given in Chapter 6 of the ECR Methodology Statement).

Please note that details of the **NTS Entry Capacity retention charge** are available in the Transportation Charging Statement and remain unchanged. The statement can be found on our website at <http://www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Charging-Statements/>.

A more detailed description of the changes will be made available on our website at <http://www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Tools-and-Models>.

If you have any questions or feedback relating to this notice, or NTS charges in general, please contact Karin Elmhirst on 01926 655540 or karin.elmhirst@nationalgrid.com.

Yours sincerely

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Table 1 - Change in Reserve Price by ASEP compared to QSEC 2016

p/kWh/day	QSEC16	QSEC17	Change
Avonmouth	0.0001	0.0001	0.0000
Bacton Terminal UKCS	0.0112	0.0114	0.0002
Barrow	0.0001	0.0001	0.0000
Barton Stacey	0.0001	0.0001	0.0000
Burton Point	0.0001	0.0001	0.0000
Canonbie	0.0040	0.0040	0.0000
Caythorpe	0.0131	0.0134	0.0003
Cheshire	0.0001	0.0001	0.0000
Dynevor Arms	0.0023	0.0010	-0.0013
Easington & Rough	0.0142	0.0139	-0.0003
Fleetwood	0.0013	0.0027	0.0014
Garton	0.0155	0.0159	0.0004
Glenmavis	0.0135	0.0138	0.0003
Hatfield Moor	0.0051	0.0052	0.0001
Hole House Farm	0.0001	0.0001	0.0000
Hornsea	0.0123	0.0126	0.0003
Isle of Grain	0.0017	0.0093	0.0076
Milford Haven	0.0231	0.0255	0.0024
Partington	0.0001	0.0001	0.0000
St Fergus	0.0475	0.0487	0.0012
Teesside	0.0099	0.0101	0.0002
Theddlethorpe	0.0137	0.0140	0.0003
Wytch Farm	0.0001	0.0001	0.0000

Appendix D QSEC Step Prices 2017

Below are the Entry Capacity reserve prices together with the price steps for each level of Incremental Capacity for use in the auction of Quarterly System Entry Capacity (QSEC).

	Bacton Terminal UKCS	Barrow	Cheshire	Canonbie	Easington & Rough	Fleetwood	Garton	Isle of Grain	Milford Haven	St Fergus	Teesside	Theddlethorpe
Obligated Level	0.0114	0.0001	0.0001	0.0040	0.0139	0.0027	0.0159	0.0093	0.0255	0.0487	0.0101	0.0140
2.5%	0.0115	0.0002	0.0026	0.0041	0.0140	0.0028	0.0160	0.0099	0.0256	0.0503	0.0102	0.0146
5.0%	0.0116	0.0003	0.0027	0.0042	0.0145	0.0029	0.0161	0.0121	0.0257	0.0504	0.0103	0.0147
7.5%	0.0117	0.0006	0.0028	0.0043	0.0146	0.0031	0.0162	0.0122	0.0258	0.0505	0.0104	0.0148
10.0%	0.0118	0.0007	0.0032	0.0044	0.0147	0.0037	0.0163	0.0123	0.0259	0.0506	0.0110	0.0154
12.5%	0.0119	0.0017	0.0033	0.0045	0.0148	0.0038	0.0164	0.0124	0.0260	0.0516	0.0111	0.0155
15.0%	0.0120	0.0018	0.0043	0.0046	0.0152	0.0039	0.0165	0.0125	0.0261	0.0519	0.0112	0.0159
17.5%	0.0121	0.0019	0.0044	0.0047	0.0173	0.0040	0.0166	0.0126	0.0262	0.0522	0.0113	0.0160
20.0%	0.0122	0.0022	0.0051	0.0048	0.0174	0.0041	0.0167	0.0127	0.0263	0.0531	0.0114	0.0161
22.5%	0.0123	0.0025	0.0055	0.0049	0.0175	0.0042	0.0168	0.0128	0.0264	0.0532	0.0115	0.0162
25.0%	0.0124	0.0026	0.0079	0.0050	0.0176	0.0043	0.0169	0.0129	0.0265	0.0534	0.0128	0.0163
27.5%	0.0125	0.0027	0.0080	0.0051	0.0177	0.0044	0.0170	0.0130	0.0266	0.0558	0.0134	0.0164
30.0%	0.0126	0.0028	0.0091	0.0052	0.0178	0.0045	0.0171	0.0131	0.0267	0.0559	0.0135	0.0165
32.5%	0.0127	0.0048	0.0092	0.0053	0.0179	0.0046	0.0172	0.0132	0.0268	0.0560	0.0136	0.0166
35.0%	0.0141	0.0049	0.0093	0.0054	0.0180	0.0051	0.0173	0.0133	0.0277	0.0561	0.0137	0.0167
37.5%	0.0142	0.0050	0.0094	0.0055	0.0181	0.0052	0.0174	0.0134	0.0280	0.0562	0.0138	0.0168
40.0%	0.0143	0.0051	0.0095	0.0056	0.0182	0.0068	0.0175	0.0135	0.0289	0.0563	0.0145	0.0169
42.5%	0.0144	0.0052	0.0096	0.0057	0.0183	0.0076	0.0176	0.0136	0.0312	0.0564	0.0146	0.0173
45.0%	0.0145	0.0055	0.0097	0.0058	0.0188	0.0079	0.0177	0.0137	0.0313	0.0565	0.0147	0.0177
47.5%	0.0146	0.0056	0.0098	0.0059	0.0189	0.0083	0.0178	0.0138	0.0314	0.0566	0.0148	0.0178
50.0%	0.0147	0.0057	0.0099	0.0066	0.0190	0.0084	0.0179	0.0139	0.0315	0.0567	0.0150	0.0179
Obligated Level (GWh/d)	485.6	340.01	542.7	0	1407.15	650	420	699.68	950	1670.7	445.09	610.7

Pence/kWh/day

Hole House Farm	Hornsea	Partington	Avonmouth	Barton Stacey
Obligated Level	0.0001	Obligated Level 0.0126	Obligated Level 0.0001	Obligated Level 0.0001
5.1%	0.0002	6.4% 0.0127	7.0% 0.0012	8.7% 0.0075
10.1%	0.0003	12.9% 0.0128	14.0% 0.0023	17.4% 0.0076
15.2%	0.0004	19.3% 0.0129	20.9% 0.0043	26.1% 0.0096
20.2%	0.0005	25.7% 0.0130	27.9% 0.0044	34.8% 0.0106
25.3%	0.0016	32.2% 0.0131	34.9% 0.0045	43.5% 0.0108
30.3%	0.0020	38.6% 0.0133	41.9% 0.0046	50.2% 0.0129
35.4%	0.0021	45.0% 0.0136	48.8% 0.0047	
40.5%	0.0022	51.5% 0.0137	55.8% 0.0048	
45.5%	0.0039			
50.6%	0.0040			
Obligated Level (GWh/d)	296.6	233.1	215	172.6

Appendix D QSEC Step Prices 2017 (cont)

	Pence/kWh/day					
	Burton Point	Caythorpe	Dynevor Arms	Glenmavis	Hatfield Moor	Wytch Farm
Obligated Level	0.0001	0.0134	0.0010	0.0138	0.0052	0.0001
10%	0.0002	0.0135	0.0011	0.0139	0.0053	0.0002
20%	0.0006	0.0136	0.0012	0.0169	0.0054	0.0003
30%	0.0007	0.0137	0.0017	0.0170	0.0055	0.0004
40%	0.0008	0.0138	0.0046	0.0171	0.0056	0.0005
50%	0.0009	0.0139	0.0069	0.0172	0.0057	0.0006
Obligated Level (GWh/d)	73.5	90	49	99	25.3	3.3

Appendix E Estimated Project Value, £m

	£m											
	Bacton Terminal UKCS	Barrow	Cheshire	Canonbie	Easington & Rough	Fleetwood	Garton	Isle of Grain	Milford Haven	St Fergus	Teesside	Theddlethorpe
Obligated Level												
2.5%	4.92	0.03	1.25	2.19	17.38	1.56	5.93	6.15	21.52	74.65	3.99	7.92
5.0%	9.84	0.06	2.51	4.37	36.25	3.12	11.87	15.04	43.04	149.60	8.07	15.84
7.5%	14.75	0.54	3.76	6.56	54.38	5.37	17.80	22.75	65.07	224.40	12.10	23.76
10.0%	19.67	0.73	6.17	8.74	72.50	8.55	23.73	30.33	86.76	299.20	17.40	33.42
12.5%	24.59	2.57	7.71	10.93	90.63	10.68	29.66	37.92	108.44	382.91	21.75	41.77
15.0%	29.51	3.08	12.44	13.11	114.00	12.82	35.59	46.24	130.13	462.16	26.10	51.76
17.5%	34.42	3.59	14.51	15.30	151.38	14.96	41.53	53.95	154.78	542.31	30.45	60.76
20.0%	39.34	5.32	19.67	17.48	173.00	17.09	47.46	61.66	176.89	630.47	35.11	69.44
22.5%	44.26	6.80	23.86	19.67	196.88	19.23	53.39	69.37	199.00	710.61	39.50	78.12
25.0%	49.18	7.55	38.09	21.85	218.75	21.37	59.32	77.07	221.11	792.53	50.61	86.80
27.5%	54.10	8.31	41.90	29.32	240.63	23.50	65.26	84.78	243.22	910.97	58.28	95.48
30.0%	61.60	9.06	52.65	31.98	262.51	25.64	71.19	96.22	265.33	993.78	63.58	104.16
32.5%	71.22	18.85	57.03	34.65	284.38	27.77	77.12	104.23	294.02	1076.60	68.88	112.84
35.0%	85.15	20.30	61.42	37.31	306.26	41.23	83.05	112.25	327.27	1159.41	74.18	121.52
37.5%	91.88	21.75	65.81	39.98	328.13	44.17	88.99	120.27	354.45	1242.23	79.47	135.90
40.0%	98.01	23.20	70.19	42.64	360.01	62.82	94.92	128.29	390.23	1325.05	91.73	144.96
42.5%	104.13	25.16	74.58	45.31	382.51	74.60	104.02	136.31	447.62	1407.86	98.14	159.55
45.0%	110.26	29.90	78.97	47.97	423.01	82.11	110.14	144.32	475.47	1490.68	103.91	172.84
47.5%	116.39	31.56	83.36	55.70	448.88	91.06	116.26	152.34	501.88	1573.49	109.68	182.45
50.0%	124.24	33.23	87.74	70.36	472.51	95.85	122.38	167.82	528.29	1656.31	118.62	192.05
Obligated Level (GWh/d)	485.6	340.01	542.7	0	1407.15	650.0	420.0	699.7	950.0	1670.7	445.09	610.7

£m

Hole House Farm		Hornsea		Partington		Avonmouth		Barton Stacey	
Obligated Level		Obligated Level		Obligated Level		Obligated Level		Obligated Level	
5.1%	0.05	6.4%	6.72	7.0%	0.64	8.37%	0.05	8.7%	4.00
10.1%	0.11	12.9%	13.43	14.0%	2.45	16.73%	0.75	17.4%	8.00
15.2%	0.32	19.3%	20.15	20.9%	6.88	25.10%	1.12	26.1%	15.35
20.2%	0.43	25.7%	26.86	27.9%	9.38	33.46%	2.35	34.8%	22.60
25.3%	4.26	32.2%	34.11	34.9%	11.73	41.83%	5.06	43.5%	28.78
30.3%	6.40	38.6%	42.53	41.9%	14.07	50.20%	11.19	52.1%	41.25
35.4%	7.46	45.0%	50.74	48.8%	16.42				
40.5%	8.53	51.5%	57.99	55.8%	19.19				
45.5%	18.71								
50.6%	20.79								
Obligated Level (GWh/d)	296.6		233.1		215.0		179.3		172.6

Appendix E Estimated Project Value, £m (cont)

£m

	Burton Point	Caythorpe	Dynevor Arms	Glenmavis	Hatfield Moor	Wytch Farm
Obligated Level						
10%	0.03	4.29	0.17	4.86	0.47	0.001
20%	0.31	8.57	0.35	11.89	0.94	0.002
30%	0.47	12.86	0.89	17.84	1.40	0.004
40%	0.73	17.14	3.20	23.92	1.87	0.005
50%	0.91	21.43	6.01	29.90	2.52	0.006
Obligated Level (GWh/d)	73.5	90.0	49.0	99.0	25.3	3.3