

Mod0356 Workgroup – 08.02.11

Produce Indicative NTS Exit (Flat) Capacity Prices with demand flows based on the 6-highest demand flows in December 2010, and derivatives.

Information and indicative NTS Exit (Flat) Capacity Prices have been provided below in response to a request, for further analysis to be conducted, from the UNC Modification Workgroup 0356 held on 8th February, 2011. Additional analysis was carried out in response to a post meeting request.

There are 9 sets of indicative NTS Exit Capacity Prices in total set out in this document. The 'As-Is' prevailing methodology and National Grid's proposed methodology (UNC 0356) prices have also been provided for comparison purposes.

Price sets 1-6 are representative of the 6 highest aggregate demand days seen on the National Transmission System in December 2010, and are based on the following model inputs:

- For bi-directional sites the modelled demand is as follows:
 - For bi-directional sites with physical entry capability (storage, IUK, and BBL) the modelled demand is the actual demand on the day.
 - For bi-directional sites with no physical entry capability (Moffat) the modelled demand is the actual demand on the day.
- For DN offtakes, the modelled demand is the actual demand on the day.
- For directly connected (DC) offtakes (NTS Power Generation & Industrials) the modelled demand is the actual demand on the day.

The modelled supply is the actual supply position on the day, with the Transportation Model scaling supplies uniformly to demand.

Price set 7 has been generated by using the highest individual offtake demand from the top-6 demand days in December 2010, and is based on the following model inputs:

- For bi-directional sites the modelled demand is as follows:
 - For bi-directional sites with physical entry capability (storage, IUK, and BBL) the modelled demand is the highest individual offtake demand from the top-6 demand days in December 2010.
 - For bi-directional sites with no physical entry capability (Moffat) the modelled demand is the highest individual offtake demand from the top-6 demand days in December 2010.
- For DN offtakes, the modelled demand is the highest individual offtake demand from the top-6 demand days in December 2010.
- For directly connected (DC) offtakes (NTS Power Generation & Industrials) the modelled demand is the highest individual offtake demand from the top-6 demand days in December 2010.

The modelled supply is the actual supply position on the day, with the Transportation Model scaling supplies uniformly to demand.

Price set 8 has been generated by using the highest individual offtake demand from any day in December 2010, and is based on the following model inputs:

- For bi-directional sites the modelled demand is as follows:
 - For bi-directional sites with physical entry capability (storage, IUK, and BBL) the modelled demand is the highest individual offtake demand of any day in December 2010.
 - For bi-directional sites with no physical entry capability (Moffat) the modelled demand is the highest individual offtake demand of any day in December 2010.
- For DN offtakes, the modelled demand is the highest individual offtake demand on any day in December 2010.
- For directly connected (DC) offtakes (NTS Power Generation & Industrials) the modelled demand is the highest individual offtake demand on any day in December 2010.

The modelled supply is the Ten Year Statement supply forecast for 2012/13, with Supply – Demand balancing (GCM16) being applied.

Price set 9 has been generated by using the highest individual offtake demand from the top-6 demand days in December 2010 or the booked capacity level (whichever is higher), and is based on the following model inputs:

- For bi-directional sites the modelled demand will be as follows:
 - For bi-directional sites with physical entry capability (storage, IUK, and BBL) the modelled demand is zero.
 - For bi-directional sites with no physical entry capability (Moffat) the modelled demand is the highest individual offtake demand from the top-6 demand days in December 2010 or the booked capacity level (whichever is higher).
- For DN offtakes, the modelled demand is the highest individual offtake demand from the top-6 demand days in December 2010 or the booked capacity level (whichever is higher).
- For directly connected (DC) offtakes (NTS Power Generation & Industrials) the modelled demand is the highest individual offtake demand from the top-6 demand days in December 2010 or the booked capacity level (whichever is higher).

The modelled supply is the Ten Year Statement supply forecast for 2012/13, with Supply – Demand balancing (GCM16) being applied.

The modelled inputs generating the 9 sets of indicative NTS Exit (Flat) Capacity prices can be summarised as in the following table.

	DC power generation	DC industrial	DN	Bi-Directional sites with no physical entry (Moffat)	Bi-Directional sites with physical entry (storage, IUK, BBL)	Supply
Sets 1-6	Top-6 Aggregate Demand Days					Actual Supply position on each day
Set 7	Highest individual offtake demand of Top-6 Days					Highest actual Supply from Top-6 Days
Set 8	Highest individual offtake demand of any December day					2012/13 Forecast Supplies & Supply / Demand balancing rules
Set 9	Highest of either Set 7 or Booked Capacity level				Zero	

NTS Exit (Flat) Capacity Prices (p/kWh/day)	DC/DN	As-Is Prevailing Methodology (May 2010)	NG Proposed Methodology	Set 1 – Highest December Day	Set 2 – 2 nd Highest December Day	Set 3 – 3 rd Highest December Day	Set 4 – 4 th Highest December Day	Set 5 – 5 th Highest December Day	Set 6 – 6 th Highest December Day	Set 7 – Highest of top 6 December Demands	Set 8 – Highest of any December Demand	Set 9 – Highest of top 6 demands or booked level (whichever is higher)
KEADBY_BS	DC	0.0018	0.0041	0.0040	0.0041	0.0038	0.0041	0.0037	0.0034	0.0044	0.0044	0.0016
KEADBY_PS	DC	0.0018	0.0041	0.0040	0.0041	0.0038	0.0041	0.0037	0.0034	0.0044	0.0044	0.0016
KEMIRAINCE_CHP	DC	0.0199	0.0242	0.0241	0.0242	0.0239	0.0242	0.0238	0.0235	0.0245	0.0245	0.0218
KINGS_LYNN_PS	DC	0.0029	0.0046	0.0041	0.0049	0.0050	0.0053	0.0042	0.0046	0.0049	0.0049	0.0021
LANGAGE_PG	DC	0.0246	0.0269	0.0273	0.0268	0.0281	0.0275	0.0335	0.0356	0.0276	0.0277	0.0249
LITTLE_BARFORD_PS	DC	0.0094	0.0111	0.0110	0.0117	0.0114	0.0117	0.0107	0.0111	0.0113	0.0114	0.0086
LONGANNET	DC	0.0075	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0095
MARCHWOOD	DC	0.0216	0.0239	0.0238	0.0239	0.0243	0.0246	0.0235	0.0239	0.0242	0.0242	0.0215
MEDWAY_PS	DC	0.0098	0.0097	0.0113	0.0121	0.0100	0.0103	0.0092	0.0074	0.0099	0.0099	0.0072
MILFORD_HAVEN_REFINERY	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
MOFFAT	DC	0.0154	0.0015	0.0036	0.0014	0.0012	0.0015	0.0011	0.0008	0.0018	0.0018	0.0174
PARTINGTON_LNG	DC	0.0176	0.0203	0.0224	0.0202	0.0200	0.0203	0.0198	0.0196	0.0205	0.0206	0.0200
PEMBROKE_PG	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
PETERBOROUGH_PS	DC	0.0060	0.0076	0.0075	0.0082	0.0080	0.0083	0.0072	0.0076	0.0079	0.0079	0.0051
PETERHEAD_PG	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
PHILLIPS_SEAL_SANDS	DC	0.0026	0.0063	0.0001	0.0001	0.0039	0.0004	0.0001	0.0001	0.0007	0.0001	0.0046
ROCKSAVAGE_PG	DC	0.0202	0.0246	0.0245	0.0246	0.0243	0.0246	0.0242	0.0239	0.0249	0.0249	0.0221
ROOSECOTE_PS	DC	0.0059	0.0083	0.0103	0.0082	0.0079	0.0082	0.0078	0.0076	0.0085	0.0085	0.0080
RYE_HOUSE_PS	DC	0.0111	0.0127	0.0126	0.0134	0.0131	0.0134	0.0123	0.0127	0.0130	0.0130	0.0103
SALTEND	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
SAPPIPAPERMILLCHP	DC	0.0142	0.0165	0.0164	0.0164	0.0162	0.0165	0.0161	0.0158	0.0168	0.0168	0.0140
SEABANK_POWER_phase_II	DC	0.0091	0.0149	0.0153	0.0149	0.0161	0.0155	0.0215	0.0236	0.0157	0.0157	0.0129
SEABANK_POWER_phase1	DC	0.0108	0.0131	0.0135	0.0131	0.0143	0.0137	0.0197	0.0218	0.0139	0.0139	0.0112
SELLAFIELD_PS	DC	0.0099	0.0123	0.0144	0.0122	0.0119	0.0122	0.0118	0.0116	0.0125	0.0126	0.0120
SEVERNSIDE_ICI	DC	0.0091	0.0148	0.0152	0.0147	0.0160	0.0154	0.0214	0.0235	0.0155	0.0156	0.0128
SHOTTON_PAPER	DC	0.0204	0.0248	0.0247	0.0247	0.0245	0.0248	0.0244	0.0241	0.0250	0.0251	0.0223
SPALDING_PG	DC	0.0033	0.0057	0.0056	0.0056	0.0054	0.0057	0.0052	0.0050	0.0059	0.0060	0.0032
SPALDING_PG_2	DC	0.0033	0.0057	0.0056	0.0056	0.0054	0.0057	0.0052	0.0050	0.0059	0.0060	0.0032
ST_FERGUS_BS	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
STALLINGBOROUGH	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0004	0.0004	0.0001
STAYTHORPE	DC	0.0049	0.0072	0.0071	0.0072	0.0069	0.0072	0.0068	0.0065	0.0075	0.0075	0.0047
STUBLACH	DC	0.0164	0.0208	0.0218	0.0208	0.0206	0.0209	0.0204	0.0202	0.0211	0.0212	0.0184
SUTTON_BRIDGE_PS	DC	0.0043	0.0060	0.0058	0.0066	0.0063	0.0066	0.0055	0.0059	0.0062	0.0062	0.0035
TEESSIDE_BASF	DC	0.0026	0.0064	0.0001	0.0001	0.0039	0.0004	0.0001	0.0001	0.0007	0.0001	0.0046
TEESSIDE_HYDROGEN	DC	0.0026	0.0064	0.0001	0.0001	0.0039	0.0004	0.0001	0.0001	0.0007	0.0001	0.0046
THORNTON_CURTIS_(KILLINGHOLME)	DC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
WEST_BURTON_PS	DC	0.0019	0.0042	0.0041	0.0042	0.0039	0.0042	0.0038	0.0035	0.0045	0.0045	0.0017
WYRE_PS	DC	0.0131	0.0154	0.0175	0.0153	0.0151	0.0154	0.0150	0.0147	0.0157	0.0157	0.0152
ZENECA	DC	0.0032	0.0070	0.0001	0.0002	0.0045	0.0011	0.0007	0.0004	0.0013	0.0005	0.0052
BACTON_OT	EA	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
BRISLEY	EA	0.0003	0.0020	0.0018	0.0026	0.0023	0.0026	0.0015	0.0020	0.0022	0.0023	0.0001
CAMBRIDGE	EA	0.0066	0.0082	0.0081	0.0089	0.0086	0.0089	0.0078	0.0082	0.0085	0.0085	0.0058
EYE	EA	0.0056	0.0073	0.0071	0.0079	0.0076	0.0079	0.0068	0.0072	0.0075	0.0076	0.0048
GREAT_WILBRAHAM	EA	0.0056	0.0073	0.0072	0.0079	0.0076	0.0079	0.0068	0.0073	0.0075	0.0076	0.0048
MATCHING_GREEN	EA	0.0097	0.0114	0.0112	0.0120	0.0117	0.0120	0.0109	0.0113	0.0116	0.0116	0.0089
ROUDHAM_HEATH	EA	0.0019	0.0036	0.0035	0.0042	0.0039	0.0043	0.0032	0.0036	0.0038	0.0039	0.0011
ROYSTON	EA	0.0075	0.0091	0.0090	0.0097	0.0095	0.0098	0.0087	0.0091	0.0094	0.0094	0.0066
WEST_WINCH	EA	0.0027	0.0043	0.0042	0.0049	0.0047	0.0050	0.0039	0.0043	0.0046	0.0046	0.0019
WHITWELL	EA	0.0094	0.0110	0.0109	0.0117	0.0114	0.0117	0.0106	0.0110	0.0113	0.0113	0.0086
YELVERTON	EA	0.0001	0.0015	0.0013	0.0021	0.0018	0.0021	0.0010	0.0014	0.0017	0.0018	0.0001
ALREWAS_EM	EM	0.0134	0.0158	0.0156	0.0157	0.0154	0.0157	0.0153	0.0151	0.0160	0.0160	0.0133
BLABY	EM	0.0099	0.0123	0.0121	0.0122	0.0119	0.0122	0.0118	0.0116	0.0125	0.0126	0.0098
BLYBOROUGH	EM	0.0019	0.0043	0.0042	0.0042	0.0040	0.0043	0.0038	0.0036	0.0045	0.0046	0.0018

NTS Exit (Flat) Capacity Prices (p/kWh/day)	DC/DN	As-Is Prevailing Methodology (May 2010)	NG Proposed Methodology	Set 1 – Highest December Day	Set 2 – 2 nd Highest December Day	Set 3 – 3 rd Highest December Day	Set 4 – 4 th Highest December Day	Set 5 – 5 th Highest December Day	Set 6 – 6 th Highest December Day	Set 7 – Highest of top 6 December Demands	Set 8 – Highest of any December Demand	Set 9 – Highest of top 6 demands or booked level (whichever is higher)
BALGRAY	SC	0.0016	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0036
BATHGATE	SC	0.0095	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0115
BROXBURN	SC	0.0110	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0130
CARESTON	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0016
DRUM	SC	0.0067	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0087
GLENMAVIS	SC	0.0107	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0127
HUME	SC	0.0128	0.0001	0.0010	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0148
KINKNOCKIE	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
LANGHOLM	SC	0.0134	0.0035	0.0056	0.0035	0.0032	0.0035	0.0031	0.0028	0.0038	0.0038	0.0154
LAUDERHILL	SC	0.0144	0.0001	0.0022	0.0001	0.0001	0.0001	0.0001	0.0001	0.0003	0.0004	0.0160
LOCKERBIE	SC	0.0144	0.0026	0.0047	0.0026	0.0023	0.0026	0.0022	0.0019	0.0029	0.0029	0.0164
MOSSIDE	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
NETHER_HOWCLEUGH	SC	0.0147	0.0008	0.0029	0.0007	0.0004	0.0007	0.0003	0.0001	0.0010	0.0011	0.0167
PITCAIRNGREEN	SC	0.0039	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0059
SOUTRA	SC	0.0145	0.0006	0.0027	0.0006	0.0003	0.0006	0.0002	0.0001	0.0009	0.0009	0.0165
ST_FERGUS_OT	SC	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
STRANRAER	SC	0.0154	0.0015	0.0036	0.0014	0.0012	0.0015	0.0011	0.0008	0.0018	0.0018	0.0174
FARNINGHAM	SE	0.0120	0.0119	0.0135	0.0143	0.0122	0.0126	0.0115	0.0097	0.0122	0.0122	0.0094
FARNINGHAM_B	SE	0.0120	0.0119	0.0135	0.0143	0.0122	0.0126	0.0115	0.0097	0.0122	0.0122	0.0094
SHORNE	SE	0.0110	0.0109	0.0126	0.0133	0.0113	0.0116	0.0105	0.0087	0.0112	0.0112	0.0084
TATSFIELD	SE	0.0137	0.0136	0.0153	0.0160	0.0140	0.0143	0.0132	0.0114	0.0139	0.0139	0.0112
WINKFIELD_SE	SE	0.0185	0.0202	0.0200	0.0208	0.0205	0.0208	0.0197	0.0201	0.0204	0.0205	0.0177
BRAISHFIELD_A	SO	0.0220	0.0237	0.0235	0.0243	0.0240	0.0243	0.0232	0.0237	0.0239	0.0240	0.0212
BRAISHFIELD_B	SO	0.0220	0.0237	0.0235	0.0243	0.0240	0.0243	0.0232	0.0237	0.0239	0.0240	0.0212
CRAWLEY_DOWN	SO	0.0202	0.0225	0.0223	0.0224	0.0228	0.0231	0.0220	0.0224	0.0227	0.0227	0.0200
HARDWICK	SO	0.0133	0.0149	0.0148	0.0155	0.0153	0.0156	0.0145	0.0149	0.0152	0.0152	0.0124
IPSDEN	SO	0.0165	0.0181	0.0180	0.0188	0.0185	0.0188	0.0177	0.0181	0.0184	0.0184	0.0157
IPSDEN_2	SO	0.0165	0.0181	0.0180	0.0188	0.0185	0.0188	0.0177	0.0181	0.0184	0.0184	0.0157
MAPPOWDER	SO	0.0170	0.0194	0.0197	0.0193	0.0206	0.0200	0.0260	0.0281	0.0201	0.0202	0.0174
WINKFIELD_SO	SO	0.0185	0.0202	0.0200	0.0208	0.0205	0.0208	0.0197	0.0201	0.0204	0.0205	0.0177
AYLESBEARE	SW	0.0192	0.0215	0.0219	0.0215	0.0227	0.0221	0.0282	0.0302	0.0223	0.0223	0.0196
CHOAKFORD	SW	0.0246	0.0269	0.0273	0.0268	0.0281	0.0275	0.0335	0.0356	0.0276	0.0277	0.0249
CIRENCESTER	SW	0.0086	0.0109	0.0113	0.0109	0.0121	0.0115	0.0176	0.0196	0.0117	0.0117	0.0090
COFFINSWELL	SW	0.0218	0.0242	0.0246	0.0241	0.0254	0.0248	0.0308	0.0329	0.0249	0.0250	0.0222
EASTON_GREY	SW	0.0091	0.0115	0.0118	0.0114	0.0127	0.0121	0.0181	0.0202	0.0122	0.0123	0.0095
EVESHAM	SW	0.0056	0.0080	0.0083	0.0079	0.0091	0.0086	0.0146	0.0161	0.0087	0.0088	0.0060
FIDDINGTON	SW	0.0044	0.0067	0.0071	0.0066	0.0079	0.0073	0.0133	0.0154	0.0074	0.0075	0.0047
ILCHESTER	SW	0.0149	0.0173	0.0177	0.0172	0.0185	0.0179	0.0239	0.0260	0.0180	0.0181	0.0153
KENN_SOUTH	SW	0.0203	0.0226	0.0230	0.0226	0.0238	0.0232	0.0292	0.0313	0.0234	0.0234	0.0207
LITTLETON_DREW	SW	0.0099	0.0123	0.0126	0.0122	0.0135	0.0129	0.0189	0.0210	0.0130	0.0131	0.0103
PUCKLECHURCH	SW	0.0108	0.0131	0.0135	0.0131	0.0143	0.0137	0.0197	0.0218	0.0139	0.0139	0.0112
ROSS_SW	SW	0.0016	0.0039	0.0043	0.0039	0.0051	0.0045	0.0105	0.0126	0.0047	0.0047	0.0020
SEABANK_LDZ	SW	0.0092	0.0150	0.0154	0.0150	0.0162	0.0156	0.0216	0.0237	0.0158	0.0158	0.0131
ALREWAS_WM	WM	0.0134	0.0158	0.0156	0.0157	0.0154	0.0157	0.0153	0.0151	0.0160	0.0160	0.0133
ASPLEY	WM	0.0164	0.0187	0.0186	0.0187	0.0184	0.0187	0.0183	0.0180	0.0190	0.0190	0.0163
AUDLEY_WM	WM	0.0180	0.0204	0.0202	0.0203	0.0200	0.0203	0.0199	0.0197	0.0206	0.0207	0.0179
AUSTREY	WM	0.0122	0.0145	0.0149	0.0145	0.0147	0.0150	0.0146	0.0143	0.0153	0.0153	0.0125
LEAMINGTON_SPA	WM	0.0082	0.0105	0.0109	0.0105	0.0117	0.0111	0.0138	0.0135	0.0113	0.0113	0.0086
LOWER_QUINTON	WM	0.0067	0.0091	0.0094	0.0090	0.0102	0.0097	0.0157	0.0154	0.0098	0.0099	0.0071
MILWICH	WM	0.0152	0.0175	0.0174	0.0174	0.0172	0.0175	0.0171	0.0168	0.0177	0.0178	0.0150
ROSS_WM	WM	0.0016	0.0039	0.0043	0.0039	0.0051	0.0045	0.0105	0.0126	0.0047	0.0047	0.0020
RUGBY	WM	0.0093	0.0116	0.0120	0.0116	0.0128	0.0122	0.0127	0.0124	0.0124	0.0124	0.0096
SHUSTOKE	WM	0.0134	0.0157	0.0161	0.0157	0.0159	0.0162	0.0158	0.0155	0.0165	0.0165	0.0137

NTS Exit (Flat) Capacity Prices (p/kWh/day)												
Exit Point	DC/DN	As-Is Prevailing Methodology (May 2010)	NG Proposed Methodology	Set 1 – Highest December Day	Set 2 – 2 nd Highest December Day	Set 3 – 3 rd Highest December Day	Set 4 – 4 th Highest December Day	Set 5 – 5 th Highest December Day	Set 6 – 6 th Highest December Day	Set 7 – Highest of top 6 December Demands	Set 8 – Highest of any December Demand	Set 9 – Highest of top 6 demands or booked level (whichever is higher)
STRATFORD_UPON_AVON	WM	0.0068	0.0092	0.0096	0.0091	0.0104	0.0098	0.0151	0.0149	0.0099	0.0100	0.0072
MAELOR	WN	0.0207	0.0231	0.0229	0.0230	0.0227	0.0230	0.0226	0.0224	0.0233	0.0234	0.0206
DOWLAIS	WS	0.0001	0.0001	0.0002	0.0001	0.0010	0.0004	0.0064	0.0085	0.0006	0.0006	0.0001
DYFFRYN_CLYDACH	WS	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0041	0.0062	0.0001	0.0001	0.0001
GILWERN	WS	0.0001	0.0010	0.0013	0.0009	0.0022	0.0016	0.0076	0.0097	0.0017	0.0018	0.0001