

DSR Workgroup

5th November 2015

Multi day trades

Action - National Grid NTS to provide some bid acceptance methodology formula examples.

- National Grid apply weightings to multi-day trades so the value of taking them is appropriately captured within system prices
- Weighting factors are calculated based on the probabilities of a GDW over the multi-day trade period.
- Weighting factors will be published on each gas day for which a GDW is issued. These weighting factors will be published at least 30 mins before accepting an offer.
- Weighting factors will be published at the following link in the event of a GDW - <http://www2.nationalgrid.com/uk/industry-information/gas-transmission-system-operations/balancing/over-the-counter-and-multi-day-trades/>

Multi day trade worked example 1

Bid type	Volume (kWh/day)	Price (p/kWh)	Duration (days)	Total cost (p)
Multi-day (buy)	200	10	3	6000

	Day 1	Day 2	Day 3
Probability of GDW (%)	100	20	5
% of price applied	80	16	4
Market Offered price (p)	24	4.8	1.2
Effective volume kWh (used in SAP, volume * original trade price (10p))	480	96	24
Balancing neutrality charge (p)	4800	960	240

$$(N)MOP = AP * (\text{Offered Price} * ND)$$

$$24 \text{ p} = [1/(1+0.2+0.05)] * (10 \text{ p/kWh} * 3)$$

Multi day trade worked example 2

Bid type	Volume (kWh/day)	Price (p/kWh)	Duration (days)	Total cost (p)
Multi-day (buy)	200	10	4	8000

	Day 1	Day 2	Day 3	Day 4
Probability of GDW (%)	100	20	5	0
% of price applied	80	16	4	0
Market Offered price (p)	32	6.4	1.6	0
Effective volume kWh (used in SAP, volume * original trade price (10p))	640	128	32	0
Balancing neutrality charge (p)	6400	1280	320	0

$$(N)MOP = AP * (\text{Offered Price} * ND)$$

$$32 \text{ p} = \left[\frac{1}{1+0.2+0.05+0} \right] * (10 \text{ p/kWh} * 4)$$

Multi-day bid acceptance

Example	Bid type	Volume (kWh/day)	Price (p/kWh)	Duration (days)	Total cost (p)	Market offer price (day 1)
Example 1	Multi-day (buy)	200	10	3	6000	24p
Example 2	Multi-day (buy)	200	10	4	8000	32p

- Example 1 would be taken ahead of example 2.

Close

- For further information please contact
 - Gareth Davies at gareth.davies5@nationalgrid.com Tel 01926 654850
 - Debbie Brace at deborah.brace@nationalgrid.com Tel 01926 653233
 - Angharad Williams at angharad.williams@nationalgrid.com Tel 01926 653149

Appendix

Appendix

- (TPD F1.1.2(d) - "**Balancing Neutrality Charges**" are amounts payable by or to National Grid NTS, so that it does not gain or lose by the payment and receipt of Market Balancing Action Charges, Daily Imbalance Charges, Scheduling Charges and other amounts specified in and in accordance with paragraph 4.