

LONDON ENERGY BROKERS' ASSOCIATION OTC ENERGY VOLUME REPORT – APRIL 2018

London Energy Brokers' Association ("LEBA") is the industry association representing the FCA regulated wholesale market brokers in the OTC and exchange traded European energy markets.

Market	April 2018			2018 Year to Date		
	Total OTC Bilaterally Settled Volume	Total OTC Cleared Volume	Grand Total OTC Volume	Total OTC Bilaterally Settled Volume	Total OTC Cleared Volume	Grand Total OTC Volume
<u>Natural Gas (MWh)</u>						
UK NBP	494,841,089	88,271,545	583,112,634	2,281,817,035	374,486,705	2,656,303,740
<u>European Hubs</u>						
Netherlands TTF	1,341,591,535	158,131,555	1,499,723,090	6,590,102,070	511,011,724	7,101,113,794
Germany NCG	100,085,016	144,000	100,229,016	538,087,340	252,432	538,339,772
Germany GasPool	66,641,655	132,540	66,774,195	316,604,999	262,908	316,867,907
France PEG	26,723,856	198,480	26,922,336	238,580,740	1,739,760	240,320,500
France TRS	2,177,342	0	2,177,342	18,051,306	341,600	18,392,906
Austria VTP	29,841,522	74,400	29,915,922	180,368,109	144,960	180,513,069
Italy PSV	65,136,900	324,720	65,461,620	304,198,287	3,948,816	308,147,103
Zeebrugge Hub	57,092,670	0	57,092,670	197,426,512	0	197,426,512
Other Gas	31,957,252	325,440	32,282,692	150,069,132	32,783,273	182,852,405
Total European Gas	1,721,247,747	159,331,135	1,880,578,882	8,533,488,495	550,485,473	9,083,973,968
<u>Power (MWh)</u>						
UK Power	63,731,293	0	63,731,293	262,466,329	538,041	263,004,370
<u>European Power</u>						
German Power	356,394,850	58,633,154	415,028,004	1,463,454,303	276,652,832	1,740,107,135
French Power	40,731,841	12,440,328	53,172,169	200,459,685	52,382,054	252,841,739
Nordic Power	0	19,730,581	19,730,581	0	87,446,121	87,446,121
Italian Power	6,520,040	26,833,927	33,353,967	29,911,653	105,362,706	135,274,359
Spanish Power	2,817,111	4,527,375	7,344,486	15,350,068	20,135,108	35,485,176
Netherlands Power	18,067,516	4,293,831	22,361,347	60,687,653	21,200,042	81,887,695
Belgian Power	4,674,071	237,979	4,912,050	16,820,931	1,512,276	18,333,207
Central & Eastern Europe	20,153,082	4,837,557	24,990,639	104,690,218	12,951,806	117,642,024
Other Power	13,236,629	353,765	13,590,394	49,897,206	1,711,477	51,608,683
Total European Power	462,595,140	131,888,497	594,483,637	1,941,271,717	579,354,422	2,520,626,139
<u>European Financial Coal Swaps (MT)</u>						
API 2 Rotterdam	3,000	51,678,500	51,681,500	3,000	223,596,500	223,599,500
API 4 Richards Bay	0	6,489,000	6,489,000	15,000	28,747,000	28,762,000
globalCOAL NEWC®	125,000	11,073,000	11,198,000	367,000	43,015,000	43,382,000
Total European Financial Coal	128,000	69,240,500	69,368,500	385,000	295,358,500	295,743,500
<u>European Carbon Emission Allowances (MT)</u>						
EUA	160,269,627	297,237,233	457,506,860	238,996,651	1,110,106,721	1,349,103,372
CER	0	0	0	0	1,255,000	1,255,000
Other Emissions	0	0	0	0	0	0
Total European Carbon Emissions	160,269,627	297,237,233	457,506,860	238,996,651	1,111,361,721	1,350,358,372

2017 and 2018 "Month" and "Year to Date" comparisons.

	Grand Total OTC Volume			Grand Total OTC Volume		
	April 2017	April 2018	% Change	Year to Date 2017	Year to Date 2018	% Change
<u>Natural Gas (MWh)</u>						
UK NBP	612,926,890	583,112,634	-4.86%	2,919,915,779	2,656,303,740	-9.03%
<u>European Hubs</u>						
Netherlands TTF	1,075,975,809	1,499,723,090	39.38%	5,461,655,810	7,101,113,794	30.02%
Germany NCG	96,173,897	100,229,016	4.22%	517,440,713	538,339,772	4.04%
Germany GasPool	72,420,209	66,774,195	-7.80%	289,634,071	316,867,907	9.40%
France PEG	32,046,202	26,922,336	-15.99%	132,928,183	240,320,500	80.79%
France TRS	6,612,570	2,177,342	-67.07%	24,956,771	18,392,906	-26.30%
Austria VTP	21,754,670	29,915,922	37.51%	155,053,415	180,513,069	16.42%
Italy PSV	56,986,752	65,461,620	14.87%	323,096,550	308,147,103	-4.63%
Zeebrugge Hub	38,042,657	57,092,670	50.08%	198,005,601	197,426,512	-0.29%
Other Gas	44,564,805	32,282,692	-27.56%	150,195,184	182,852,405	21.74%
Total European Gas	1,444,577,571	1,880,578,882	30.18%	7,252,966,298	9,083,973,968	25.24%
<u>Power (MWh)</u>						
UK Power	53,310,677	63,731,293	19.55%	335,413,529	263,004,370	-21.59%
<u>European Power</u>						
German Power	416,024,740	415,028,004	-0.24%	1,770,127,054	1,740,107,135	-1.70%
French Power	39,626,436	53,172,169	34.18%	178,287,688	252,841,739	41.82%
Nordic Power	19,614,890	19,730,581	0.59%	94,867,869	87,446,121	-7.82%
Italian Power	20,587,598	33,353,967	62.01%	112,356,426	135,274,359	20.40%
Spanish Power	8,828,191	7,344,486	-16.81%	40,350,073	35,485,176	-12.06%
Netherlands Power	19,794,021	22,361,347	12.97%	71,934,749	81,887,695	13.84%
Belgian Power	3,881,386	4,912,050	26.55%	16,310,263	18,333,207	12.40%
Central & Eastern Europe	25,365,447	24,990,639	-1.48%	142,310,798	117,642,024	-17.33%
Other Power	14,372,456	13,590,394	-5.44%	86,669,381	51,608,683	-40.45%
Total European Power	568,095,165	594,483,637	4.65%	2,513,214,301	2,520,626,139	0.29%
<u>European Financial Coal Swaps (MT)</u>						
API 2 Rotterdam	55,274,000	51,681,500	-6.50%	317,001,000	223,599,500	-29.46%
API 4 Richards Bay	7,384,000	6,489,000	-12.12%	39,784,000	28,762,000	-27.70%
globalCOAL NEWC®	16,580,500	11,198,000	-32.46%	83,180,000	43,382,000	-47.85%
Total European Financial Coal	79,238,500	69,368,500	-12.46%	439,965,000	295,743,500	-32.78%
<u>European Carbon Emission Allowances (MT)</u>						
EUA	173,078,000	457,506,860	164.34%	634,804,000	1,349,103,372	112.52%
CER	2,590,616	0	-100.00%	24,889,216	1,255,000	-94.96%
Other Emissions	0	0	0.00%	0	0	0.00%
Total European Carbon Emissions	175,668,616	457,506,860	160.44%	659,693,216	1,350,358,372	104.69%

	YTD Total OTC Market Volume Change 1 year	Proportion Cleared OTC April 2018	Proportion Cleared OTC April 2017	Average Price April 2018	Price Change 1 Month	Price Change 1 Year	Historical Volatility 1 Month
Natural Gas (MWh)							
UK NBP	- 9 %	15.14%	12.35%				
Netherlands TTF	+ 30 %	10.54%	5.44%	Price Benchmark LEBA TTF Day Ahead 19.58 €/MWh			
Germany NCG	+ 4 %	0.14%	0.00%				
Germany GasPool	+ 9 %	0.20%	0.12%				
France PEG	+ 81 %	0.74%	0.00%				
France TRS	- 26 %	0.00%	0.00%				
Austria VTP	+ 16 %	0.25%	0.00%				
Italy PSV	- 5 %	0.50%	0.80%				
Zeebrugge Hub	- 0 %	0.00%	0.00%				
Other Gas	+ 22 %	1.01%	8.12%				
Total European Gas	+ 25 %	8.47%	4.34%		+ 12 %	+ 26 %	30%
Power (MWh)							
UK Power	- 22 %	0.00%	0.17%		+ 3 %	+ 18 %	78%
German Power	- 2 %	14.13%	20.25%	Price Benchmark LEBA UK Day Ahead 50.7 £/MWh			
French Power	+ 42 %	23.40%	17.33%				
Nordic Power	- 8 %	100.00%	100.00%				
Italian Power	+ 20 %	80.45%	59.80%				
Spanish Power	- 12 %	61.64%	39.66%				
Netherlands Power	+ 14 %	19.20%	27.01%				
Belgian Power	+ 12 %	4.84%	7.62%				
Central & Eastern Europe	- 17 %	19.36%	0.16%				
Other Power	- 40 %	2.60%	0.70%				
Total European Power	+ 0 %	22.19%	23.29%				
European Financial Coal Swaps (MT)							
API 2 Rotterdam	- 29 %	99.99%	100.00%	Price Benchmark LEBA API 2 Front Month 81.68 US\$/MT			
API 4 Richards Bay	- 28 %	100.00%	99.32%				
globalCOAL NEWC®	- 48 %	98.88%	98.28%				
Total Coal	- 33 %	99.82%	99.58%		+ 6 %	+ 13 %	17%
European Carbon Emission Allowances (MT)							
EUA	+ 113 %	64.97%	79.13%	Price Benchmark LEBA EUA Spot Average 13.34 €/MT			
CER	- 95 %	N/A	0.00%				
Other Emissions	N/A	N/A	N/A				
Total Emissions	+ 105 %	64.97%	77.96%		+ 3 %	+ 199 %	34%

Notes:

1. Price Change - 1 Month: calculated using the percentage change from the previous month
2. Price Change - 1 year: calculated using the percentage change from the previous year
3. Historical Volatility - 1 month: calculated by taking the annualised standard deviation of daily logarithmic returns over the last month.
4. N/A - no comparable data

For media enquiries, please contact: Harriet Leatherbarrow, Greentarget – +44(0) 207 324 5483

NOTES TO EDITORS:

LEBA, the London Energy Brokers' Association, is the industry association representing the FCA regulated wholesale market brokers in the over the counter (OTC) and the exchange traded liberalised European energy markets. These brokers intermediate and facilitate bilateral contracts to be concluded between banks, trading houses, commercial enterprises, public utilities and integrated energy businesses, providing liquidity and price discovery to these markets as well as contributing significant liquidity to European exchange traded markets.

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