

LONDON ENERGY BROKERS' ASSOCIATION OTC ENERGY VOLUME REPORT – FEBRUARY 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	February 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	565,872,515	82,964,144	648,836,659	1,227,035,581	180,564,832	1,407,600,413
<u>European Hubs</u>						
Netherlands TTF	1,622,992,975	118,489,762	1,741,482,737	3,342,991,829	228,136,602	3,571,128,431
Germany NCG	123,596,941	0	123,596,941	288,198,943	108,432	288,307,375
Germany GasPool	86,688,760	0	86,688,760	153,161,951	130,368	153,292,319
France PEG	39,968,440	526,320	40,494,760	90,714,101	632,880	91,346,981
France TRS	1,436,190	0	1,436,190	8,880,154	341,600	9,221,754
Austria VTP	47,411,933	0	47,411,933	106,819,309	70,560	106,889,869
Italy PSV	65,152,697	1,739,376	66,892,073	147,509,786	3,049,872	150,559,658
Zeebrugge Hub	35,753,831	0	35,753,831	98,050,080	0	98,050,080
Other Gas	25,737,448	3,704,376	29,441,824	90,869,517	8,088,392	98,957,909
Total European Gas	2,048,739,215	124,459,834	2,173,199,049	4,327,195,669	240,558,706	4,567,754,375
<u>Power (MWh)</u>						
UK Power	62,038,216	142,530	62,180,746	127,103,869	332,385	127,436,254
<u>European Power</u>						
German Power	353,362,844	84,971,843	438,334,687	766,931,582	157,523,964	924,455,546
French Power	54,834,776	14,505,308	69,340,084	111,325,597	27,617,918	138,943,515
Nordic Power	0	26,860,519	26,860,519	0	48,577,619	48,577,619
Italian Power	5,939,115	25,657,091	31,596,206	16,417,216	56,510,561	72,927,777
Spanish Power	4,273,334	7,472,767	11,746,101	8,897,589	12,111,456	21,009,045
Netherlands Power	9,280,916	4,886,319	14,167,235	22,154,963	10,799,935	32,954,898
Belgian Power	3,218,853	418,480	3,637,333	7,829,655	982,700	8,812,355
Central & Eastern Europe	28,813,703	2,954,813	31,768,516	62,134,039	5,868,394	68,002,433
Other Power	8,865,603	375,984	9,241,587	23,689,914	1,077,854	24,767,768
Total European Power	468,589,144	168,103,124	636,692,268	1,019,380,555	321,070,401	1,340,450,956
<u>European Financial Coal Swaps (MT)</u>						
API 2 Rotterdam	0	66,817,000	66,817,000	0	119,141,000	119,141,000
API 4 Richards Bay	0	8,474,000	8,474,000	15,000	15,800,000	15,815,000
globalCOAL NEWC®	157,000	10,318,000	10,475,000	242,000	21,517,000	21,759,000
Total European Financial Coal	157,000	85,609,000	85,766,000	257,000	156,458,000	156,715,000
<u>European Carbon Emission Allowances (MT)</u>						
EUA	27,160,000	223,649,488	250,809,488	68,755,000	409,973,279	478,728,279
CER	0	0	0	0	905,000	905,000
Other Emissions	0	0	0	0	0	0
Total European Carbon Emissions	27,160,000	223,649,488	250,809,488	68,755,000	410,878,279	479,633,279

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

	Grand Total OTC Volume			Grand Total OTC Volume		
	February 2017	February 2018	% Change	Year to Date 2017	Year to Date 2018	% Change
<u>Natural Gas (MWh)</u>						
UK NBP	791,305,644	648,836,659	-18.00%	1,500,499,254	1,407,600,413	-6.19%
<u>European Hubs</u>						
Netherlands TTF	1,283,458,833	1,741,482,737	35.69%	2,693,503,195	3,571,128,431	32.58%
Germany NCG	106,924,549	123,596,941	15.59%	257,520,553	288,307,375	11.96%
Germany GasPool	63,816,900	86,688,760	35.84%	132,556,520	153,292,319	15.64%
France PEG	31,334,720	40,494,760	29.23%	65,104,214	91,346,981	40.31%
France TRS	7,501,151	1,436,190	-80.85%	11,015,303	9,221,754	-16.28%
Austria VTP	40,575,497	47,411,933	16.85%	82,530,029	106,889,869	29.52%
Italy PSV	61,385,582	66,892,073	8.97%	121,646,852	150,559,658	23.77%
Zeebrugge Hub	42,761,676	35,753,831	-16.39%	97,056,814	98,050,080	1.02%
Other Gas	33,364,349	29,441,824	-11.76%	68,370,536	98,957,909	44.74%
Total European Gas	1,671,123,257	2,173,199,049	30.04%	3,529,304,015	4,567,754,375	29.42%
<u>Power (MWh)</u>						
UK Power	84,444,933	62,180,746	-26.37%	186,385,402	127,436,254	-31.63%
<u>European Power</u>						
German Power	344,985,933	438,334,687	27.06%	862,134,384	924,455,546	7.23%
French Power	37,435,889	69,340,084	85.22%	78,861,520	138,943,515	76.19%
Nordic Power	24,673,349	26,860,519	8.86%	45,552,320	48,577,619	6.64%
Italian Power	27,930,087	31,596,206	13.13%	57,587,103	72,927,777	26.64%
Spanish Power	7,916,414	11,746,101	48.38%	18,207,707	21,009,045	15.39%
Netherlands Power	11,919,420	14,167,235	18.86%	31,569,516	32,954,898	4.39%
Belgian Power	4,470,896	3,637,333	-18.64%	8,160,548	8,812,355	7.99%
Central & Eastern Europe	30,487,275	31,768,516	4.20%	66,701,777	68,002,433	1.95%
Other Power	14,356,592	9,241,587	-35.63%	47,017,190	24,767,768	-47.32%
Total European Power	504,175,855	636,692,268	26.28%	1,215,792,065	1,340,450,956	10.25%
<u>European Financial Coal Swaps (MT)</u>						
API 2 Rotterdam	70,858,000	66,817,000	-5.70%	174,751,000	119,141,000	-31.82%
API 4 Richards Bay	6,343,000	8,474,000	33.60%	20,918,000	15,815,000	-24.40%
globalCOAL NEWC®	18,397,000	10,475,000	-43.06%	44,994,500	21,759,000	-51.64%
Total European Financial Coal	95,598,000	85,766,000	-10.28%	240,663,500	156,715,000	-34.88%
<u>European Carbon Emission Allowances (MT)</u>						
EUA	161,358,000	250,809,488	55.44%	328,187,000	478,728,279	45.87%
CER	5,390,140	0	-100.00%	10,273,510	905,000	-91.19%
Other Emissions	0	0	0.00%	0	0	0.00%
Total European Carbon Emissions	166,748,140	250,809,488	50.41%	338,460,510	479,633,279	41.71%

	YTD Total OTC Market Volume Change 1 year	Proportion Cleared OTC February 2018	Proportion Cleared OTC February 2017	Average Price February 2018	Price Change 1 Month	Price Change 1 Year	Historical Volatility 1 Month
<u>Natural Gas (MWh)</u>							
UK NBP	- 6 %	12.79%	14.37%				
Netherlands TTF	+ 33 %	6.80%	3.95%	Price Benchmark LEBA TTF Day Ahead 21.17 €/MWh			
Germany NCG	+ 12 %	0.00%	0.21%				
Germany GasPool	+ 16 %	0.00%	0.00%				
France PEG	+ 40 %	1.30%	0.84%				
France TRS	- 16 %	0.00%	0.00%				
Austria VTP	+ 30 %	0.00%	0.00%				
Italy PSV	+ 24 %	2.60%	1.63%				
Zeebrugge Hub	+ 1 %	0.00%	0.00%				
Other Gas	+ 45 %	12.58%	3.08%				
Total European Gas	+ 29 %	5.73%	3.19%			+ 112 %	+ 90 %
<u>Power (MWh)</u>							
UK Power	- 32 %	0.23%	0.29%		+ 47 %	+ 51 %	101%
German Power	+ 7 %	19.39%	18.12%	Price Benchmark LEBA UK Day Ahead 53.44 £/MWh			
French Power	+ 76 %	20.92%	15.55%				
Nordic Power	+ 7 %	100.00%	100.00%				
Italian Power	+ 27 %	81.20%	48.61%				
Spanish Power	+ 15 %	63.62%	46.02%				
Netherlands Power	+ 4 %	34.49%	23.47%				
Belgian Power	+ 8 %	11.51%	4.26%				
Central & Eastern Europe	+ 2 %	9.30%	0.36%				
Other Power	- 47 %	4.07%	0.75%				
Total European Power	+ 10 %	26.40%	22.50%				
<u>European Financial Coal Swaps (MT)</u>							
API 2 Rotterdam	- 32 %	100.00%	100.00%	Price Benchmark LEBA API 2 Front Month 84.76 US\$/MT			
API 4 Richards Bay	- 24 %	100.00%	100.00%				
globalCOAL NEWC®	- 52 %	98.50%	100.00%				
Total Coal	- 35 %	99.82%	100.00%		- 8 %	- 1 %	32%
<u>European Carbon Emission Allowances (MT)</u>							
EUA	+ 46 %	89.17%	46.92%	Price Benchmark LEBA EUA Spot Average 9.48 €/MT			
CER	- 91 %	N/A	9.63%				
Other Emissions	N/A	N/A	N/A				
Total Emissions	+ 42 %	89.17%	45.71%		+ 13 %	+ 97 %	53%

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

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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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