

LONDON ENERGY BROKERS' ASSOCIATION OTC ENERGY VOLUME REPORT – NOVEMBER 2017

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	November 2017			2017 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	675,139,208	91,027,342	766,166,550	6,637,362,813	1,026,439,490	7,663,802,305
<u>European Hubs</u>						
Netherlands TTF	1,542,875,179	120,645,904	1,663,521,083	13,394,471,291	851,111,761	14,245,583,052
Germany NCG	147,250,612	49,848	147,300,460	1,361,609,726	2,068,133	1,363,677,859
Germany GasPool	107,491,200	111,600	107,602,800	905,051,141	1,510,780	906,561,921
France PEG	31,418,869	0	31,418,869	386,852,992	2,386,560	389,239,552
France TRS	4,126,409	0	4,126,409	50,507,674	0	50,507,674
Austria VTP	37,962,860	0	37,962,860	408,089,150	155,520	408,244,670
Italy PSV	64,334,575	841,440	65,176,015	813,299,978	7,068,850	820,368,828
Zeebrugge Hub	29,726,748	0	29,726,748	473,646,796	0	473,646,796
Other Gas	30,077,452	656,760	30,734,212	392,901,038	12,183,080	405,084,118
Total European Gas	1,995,263,904	122,305,552	2,117,569,456	18,186,429,787	876,484,684	19,062,914,471
<u>Power (MWh)</u>						
UK Power	66,784,429	170,618	66,955,047	893,908,051	4,146,299	898,054,350
<u>European Power</u>						
German Power	433,043,045	78,798,567	511,841,612	4,111,181,797	780,497,443	4,891,679,240
French Power	105,198,016	19,216,089	124,414,105	638,184,193	122,964,398	761,148,591
Nordic Power	0	22,370,325	22,370,325	0	250,673,806	250,673,806
Italian Power	9,443,300	26,872,427	36,315,727	121,400,673	216,986,398	338,387,071
Spanish Power	6,246,352	5,077,293	11,323,645	52,552,651	61,811,003	114,363,654
Netherlands Power	22,830,563	7,569,709	30,400,272	172,174,212	55,899,394	228,073,606
Belgian Power	6,469,491	536,505	7,005,996	44,729,618	2,768,234	47,497,852
Central & Eastern Europe	51,107,478	8,357,289	59,464,767	436,483,055	18,259,647	454,742,702
Other Power	16,559,397	982,752	17,542,149	177,265,679	3,526,939	180,792,618
Total European Power	650,897,642	169,780,956	820,678,598	5,753,971,878	1,513,387,262	7,267,359,140
<u>European Financial Coal Swaps (MT)</u>						
API 2 Rotterdam	0	73,407,000	73,407,000	105,000	816,532,500	816,637,500
API 4 Richards Bay	0	6,722,000	6,722,000	100,000	91,747,000	91,847,000
globalCOAL NEWC®	1,664,000	12,443,000	14,107,000	6,119,000	173,186,000	179,305,000
Total European Financial Coal	1,664,000	92,572,000	94,236,000	6,324,000	1,081,465,500	1,087,789,500
<u>European Carbon Emission Allowances (MT)</u>						
EUA	38,892,000	147,119,000	186,011,000	455,676,000	1,565,598,030	2,021,274,030
CER	4,537,362	484,000	5,021,362	47,258,542	3,578,000	50,836,542
Other Emissions	0	0	0	0	0	0
Total European Carbon Emissions	43,429,362	147,603,000	191,032,362	502,934,542	1,569,176,030	2,072,110,572

2016 and 2017 “Month” and “Year to Date” comparisons.

	Grand Total OTC Volume			Grand Total OTC Volume		
	November 2016	November 2017	% Change	Year to Date 2016	Year to Date 2017	% Change
Natural Gas (MWh)						
UK NBP	677,469,232	766,166,550	13.09%	9,140,438,970	7,663,802,305	-16.15%
European Hubs						
Netherlands TTF	1,464,067,001	1,663,521,083	13.62%	15,560,671,394	14,245,583,052	-8.45%
Germany NCG	169,259,406	147,300,460	-12.97%	1,615,499,886	1,363,677,859	-15.59%
Germany GasPool	84,795,103	107,602,800	26.90%	933,442,227	906,561,921	-2.88%
France PEG	31,454,092	31,418,869	-0.11%	400,328,872	389,239,552	-2.77%
France TRS	3,446,662	4,126,409	19.72%	45,097,055	50,507,674	12.00%
Austria VTP	48,927,210	37,962,860	-22.41%	467,556,266	408,244,670	-12.69%
Italy PSV	62,396,270	65,176,015	4.45%	801,285,750	820,368,828	2.38%
Zeebrugge Hub	59,776,504	29,726,748	-50.27%	696,601,339	473,646,796	-32.01%
Other Gas	46,914,823	30,734,212	-34.49%	401,043,095	405,084,118	1.01%
Total European Gas	1,971,037,071	2,117,569,456	7.43%	20,921,525,884	19,062,914,471	-8.88%
Power (MWh)						
UK Power	146,196,952	66,955,047	-54.20%	1,247,127,820	898,054,350	-27.99%
European Power						
German Power	710,050,084	511,841,612	-27.91%	5,145,676,952	4,891,679,240	-4.94%
French Power	150,531,231	124,414,105	-17.35%	1,119,544,673	761,148,591	-32.01%
Nordic Power	18,726,508	22,370,325	19.46%	289,845,456	250,673,806	-13.51%
Italian Power	46,301,051	36,315,727	-21.57%	535,186,898	338,387,071	-36.77%
Spanish Power	11,044,786	11,323,645	2.52%	148,250,627	114,363,654	-22.86%
Netherlands Power	21,172,934	30,400,272	43.58%	196,898,805	228,073,606	15.83%
Belgian Power	3,307,892	7,005,996	111.80%	41,954,140	47,497,852	13.21%
Central & Eastern Europe	53,542,520	59,464,767	11.06%	401,994,681	454,742,702	13.12%
Other Power	21,403,968	17,542,149	-18.04%	234,146,842	180,792,618	-22.79%
Total European Power	1,036,080,974	820,678,598	-20.79%	8,113,499,074	7,267,359,140	-10.43%
European Financial Coal Swaps (MT)						
API 2 Rotterdam	144,312,000	73,407,000	-49.13%	2,007,692,800	816,637,500	-59.32%
API 4 Richards Bay	17,737,000	6,722,000	-62.10%	228,059,500	91,847,000	-59.73%
globalCOAL NEWC®	60,276,500	14,107,000	-76.60%	362,423,500	179,305,000	-50.53%
Total European Financial Coal	222,325,500	94,236,000	-57.61%	2,598,175,800	1,087,789,500	-58.13%
European Carbon Emission Allowances (MT)						
EUA	179,410,000	186,011,000	3.68%	1,460,221,884	2,021,274,030	38.42%
CER	6,931,460	5,021,362	-27.56%	29,565,552	50,836,542	71.95%
Other Emissions	0	0	0.00%	15,691,350	0	-100.00%
Total European Carbon Emissions	186,341,460	191,032,362	2.52%	1,505,478,786	2,072,110,572	37.64%

	YTD Total OTC Market Volume Change 1 year	Proportion Cleared OTC November 2017	Proportion Cleared OTC November 2016	Average Price November 2017	Price Change 1 Month	Price Change 1 Year	Historical Volatility 1 Month
<u>Natural Gas (MWh)</u>							
UK NBP	- 16 %	11.88%	10.60%				
Netherlands TTF	- 8 %	7.25%	3.36%	Price Benchmark LEBA TTF Day Ahead 19.51 €/MWh			
Germany NCG	- 16 %	0.03%	0.00%				
Germany GasPool	- 3 %	0.10%	0.07%				
France PEG	- 3 %	0.00%	0.00%				
France TRS	+ 12 %	0.00%	0.00%				
Austria VTP	- 13 %	0.00%	0.00%				
Italy PSV	+ 2 %	1.29%	0.80%				
Zeebrugge Hub	- 32 %	0.00%	0.00%				
Other Gas	+ 1 %	2.14%	1.91%				
Total European Gas	- 9 %	5.78%	2.57%			+ 14 %	+ 13 %
<u>Power (MWh)</u>							
UK Power	- 28 %	0.25%	0.37%		+ 9 %	- 7 %	61%
German Power	- 5 %	15.40%	20.87%	Price Benchmark LEBA UK Day Ahead 51.46 £/MWh			
French Power	- 32 %	15.45%	15.09%				
Nordic Power	- 14 %	100.00%	100.00%				
Italian Power	- 37 %	74.00%	52.81%				
Spanish Power	- 23 %	44.84%	57.32%				
Netherlands Power	+ 16 %	24.90%	27.61%				
Belgian Power	+ 13 %	7.66%	8.27%				
Central & Eastern Europe	+ 13 %	14.05%	0.82%				
Other Power	- 23 %	5.60%	2.70%				
Total European Power	- 10 %	20.69%	21.96%				
<u>European Financial Coal Swaps (MT)</u>							
API 2 Rotterdam	- 59 %	100.00%	99.99%	Price Benchmark LEBA API 2 Front Month 93.99 US\$/MT			
API 4 Richards Bay	- 60 %	100.00%	100.00%				
globalCOAL NEWC®	- 51 %	88.20%	83.72%				
Total Coal	- 58 %	98.23%	95.58%		- 3 %	+ 8 %	11%
<u>European Carbon Emission Allowances (MT)</u>							
EUA	+ 38 %	79.09%	85.48%	Price Benchmark LEBA EUA Spot Average 7.57 €/MT			
CER	+ 72 %	9.64%	28.45%				
Other Emissions	- 100 %	N/A	N/A				
Total Emissions	+ 38 %	77.27%	83.36%		+ 3 %	+ 64 %	35%

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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