

**LONDON ENERGY BROKERS' ASSOCIATION OTC ENERGY VOLUME REPORT – OCTOBER 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	October 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
<b><u>Natural Gas (MWh)</u></b>						
<b>UK NBP</b>	<b>531,734,550</b>	<b>83,406,823</b>	<b>615,141,373</b>	<b>5,236,164,512</b>	<b>975,452,462</b>	<b>6,211,616,974</b>
<b><u>European Hubs</u></b>						
Netherlands TTF	2,005,004,114	152,358,712	2,157,362,826	16,380,955,879	1,382,214,190	17,763,170,069
Germany NCG	158,192,322	3,600	158,195,922	1,275,118,787	509,328	1,275,628,115
Germany GasPool	116,561,913	21,590	116,583,503	797,960,929	1,287,620	799,248,549
France PEG	48,264,545	1,380,480	49,645,025	456,411,511	5,092,490	461,504,001
France TRS	711,293	0	711,293	25,020,711	341,600	25,362,311
Austria VTP	56,970,112	23,040	56,993,152	439,301,068	323,400	439,624,468
Italy PSV	85,335,168	400,200	85,735,368	805,897,935	6,461,760	812,359,695
Zeebrugge Hub	29,183,068	0	29,183,068	405,450,406	454,846	405,905,253
Other Gas	28,547,043	2,743,940	31,290,983	310,463,074	86,290,293	396,753,367
<b>Total European Gas</b>	<b>2,528,769,578</b>	<b>156,931,562</b>	<b>2,685,701,140</b>	<b>20,896,580,299</b>	<b>1,482,975,527</b>	<b>22,379,555,826</b>
<b><u>Power (MWh)</u></b>						
<b>UK Power</b>	<b>89,546,750</b>	<b>125,040</b>	<b>89,671,790</b>	<b>745,194,057</b>	<b>1,213,113</b>	<b>746,407,170</b>
<b><u>European Power</u></b>						
German Power	428,720,778	86,470,093	515,190,871	3,806,271,007	746,468,027	4,552,739,034
French Power	41,743,187	15,229,878	56,973,065	442,166,020	126,453,426	568,619,446
Nordic Power	0	19,969,901	19,969,901	0	239,081,823	239,081,823
Italian Power	8,414,108	41,350,977	49,765,085	88,228,551	307,757,807	395,986,358
Spanish Power	3,280,682	9,618,736	12,899,418	34,614,882	65,997,396	100,612,278
Netherlands Power	14,996,483	3,272,543	18,269,026	150,842,215	39,945,338	190,787,553
Belgian Power	5,145,254	843,274	5,988,528	58,400,492	7,919,801	66,320,293
Central & Eastern Europe	26,346,576	7,236,384	33,582,960	241,123,539	51,942,557	293,066,096
Other Power	16,283,962	3,101,327	19,385,289	139,372,077	7,770,048	147,142,125
<b>Total European Power</b>	<b>544,931,030</b>	<b>187,093,113</b>	<b>732,024,143</b>	<b>4,961,018,783</b>	<b>1,593,336,223</b>	<b>6,554,355,006</b>
<b><u>European Financial Coal Swaps (MT)</u></b>						
API 2 Rotterdam	0	60,188,000	60,188,000	3,000	524,281,500	524,284,500
API 4 Richards Bay	0	3,113,000	3,113,000	20,000	62,084,500	62,104,500
globalCOAL NEWC®	410,000	10,558,000	10,968,000	2,030,000	111,343,000	113,373,000
<b>Total European Financial Coal</b>	<b>410,000</b>	<b>73,859,000</b>	<b>74,269,000</b>	<b>2,053,000</b>	<b>697,709,000</b>	<b>699,762,000</b>
<b><u>European Carbon Emission Allowances (MT)</u></b>						
EUA	7,911,791	529,541,930	537,453,721	334,706,139	3,104,477,326	3,439,183,465
CER	0	1,210,000	1,210,000	0	8,217,279	8,217,279
Other Emissions	0	1,833,000	1,833,000	0	1,965,000	1,965,000
<b>Total European Carbon Emissions</b>	<b>7,911,791</b>	<b>532,584,930</b>	<b>540,496,721</b>	<b>334,706,139</b>	<b>3,114,659,605</b>	<b>3,449,365,744</b>

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

	Grand Total OTC Volume			Grand Total OTC Volume		
	October 2017	October 2018	% Change	Year to Date 2017	Year to Date 2018	% Change
<b><u>Natural Gas (MWh)</u></b>						
<b>UK NBP</b>	<b>629,063,194</b>	<b>615,141,373</b>	<b>-2.21%</b>	<b>6,897,635,755</b>	<b>6,211,616,974</b>	<b>-9.95%</b>
<b><u>European Hubs</u></b>						
Netherlands TTF	1,259,872,396	2,157,362,826	71.24%	12,582,061,969	17,763,170,069	41.18%
Germany NCG	106,979,494	158,195,922	47.87%	1,216,377,399	1,275,628,115	4.87%
Germany GasPool	120,657,201	116,583,503	-3.38%	798,959,121	799,248,549	0.04%
France PEG	26,791,741	49,645,025	85.30%	357,820,683	461,504,001	28.98%
France TRS	2,510,311	711,293	-71.67%	46,381,265	25,362,311	-45.32%
Austria VTP	42,622,362	56,993,152	33.72%	370,281,810	439,624,468	18.73%
Italy PSV	78,450,336	85,735,368	9.29%	755,192,813	812,359,695	7.57%
Zeebrugge Hub	39,114,217	29,183,068	-25.39%	443,920,048	405,905,253	-8.56%
Other Gas	35,076,449	31,290,983	-10.79%	374,349,906	396,753,367	5.98%
<b>Total European Gas</b>	<b>1,712,074,508</b>	<b>2,685,701,140</b>	<b>56.87%</b>	<b>16,945,345,015</b>	<b>22,379,555,826</b>	<b>32.07%</b>
<b><u>Power (MWh)</u></b>						
<b>UK Power</b>	<b>81,550,965</b>	<b>89,671,790</b>	<b>9.96%</b>	<b>831,099,303</b>	<b>746,407,170</b>	<b>-10.19%</b>
<b><u>European Power</u></b>						
German Power	509,536,260	515,190,871	1.11%	4,379,837,628	4,552,739,034	3.95%
French Power	104,149,538	56,973,065	-45.30%	636,734,486	568,619,446	-10.70%
Nordic Power	26,755,158	19,969,901	-25.36%	228,303,481	239,081,823	4.72%
Italian Power	35,689,064	49,765,085	39.44%	302,071,344	395,986,358	31.09%
Spanish Power	11,787,214	12,899,418	9.44%	103,040,009	100,612,278	-2.36%
Netherlands Power	23,773,500	18,269,026	-23.15%	197,673,334	190,787,553	-3.48%
Belgian Power	5,499,294	5,988,528	8.90%	40,491,856	66,320,293	63.79%
Central & Eastern Europe	52,741,872	33,582,960	-36.33%	395,277,935	293,066,096	-25.86%
Other Power	14,059,031	19,385,289	37.88%	163,250,469	147,142,125	-9.87%
<b>Total European Power</b>	<b>783,990,931</b>	<b>732,024,143</b>	<b>-6.63%</b>	<b>6,446,680,542</b>	<b>6,554,355,006</b>	<b>1.67%</b>
<b><u>European Financial Coal Swaps (MT)</u></b>						
API 2 Rotterdam	72,107,500	60,188,000	-16.53%	743,230,500	524,284,500	-29.46%
API 4 Richards Bay	6,985,000	3,113,000	-55.43%	85,125,000	62,104,500	-27.04%
globalCOAL NEWC®	10,529,000	10,968,000	4.17%	165,198,000	113,373,000	-31.37%
<b>Total European Financial Coal</b>	<b>89,621,500</b>	<b>74,269,000</b>	<b>-17.13%</b>	<b>993,553,500</b>	<b>699,762,000</b>	<b>-29.57%</b>
<b><u>European Carbon Emission Allowances (MT)</u></b>						
EUA	216,064,000	537,453,721	148.75%	1,835,263,030	3,439,183,465	87.39%
CER	3,456,703	1,210,000	-65.00%	45,815,180	8,217,279	-82.06%
Other Emissions	0	1,833,000	100.00%	0	1,965,000	100.00%
<b>Total European Carbon Emissions</b>	<b>219,520,703</b>	<b>540,496,721</b>	<b>146.22%</b>	<b>1,881,078,210</b>	<b>3,449,365,744</b>	<b>83.37%</b>

	YTD Total OTC Market Volume Change 1 year	Proportion Cleared OTC October 2018	Proportion Cleared OTC October 2017	Average Price October 2018	Price Change 1 Month	Price Change 1 Year	Historical Volatility 1 Month
<b><u>Natural Gas (MWh)</u></b>							
<b>UK NBP</b>	<b>- 10 %</b>	<b>13.56%</b>	<b>16.08%</b>				
Netherlands TTF	+ 41 %	7.06%	6.02%	<b>Price Benchmark LEBA TTF Day Ahead 25.66 €/MWh</b>			
Germany NCG	+ 5 %	0.00%	0.00%				
Germany GasPool	+ 0 %	0.02%	0.00%				
France PEG	+ 29 %	2.78%	0.16%				
France TRS	- 45 %	0.00%	0.00%				
Austria VTP	+ 19 %	0.04%	0.00%				
Italy PSV	+ 8 %	0.47%	0.65%				
Zeebrugge Hub	- 9 %	0.00%	0.00%				
Other Gas	+ 6 %	8.77%	0.82%				
<b>Total European Gas</b>	<b>+ 32 %</b>	<b>5.84%</b>	<b>4.48%</b>		<b>- 12 %</b>	<b>+ 31 %</b>	<b>36%</b>
<b><u>Power (MWh)</u></b>							
<b>UK Power</b>	<b>- 10 %</b>	<b>0.14%</b>	<b>0.18%</b>		<b>- 0 %</b>	<b>+ 40 %</b>	<b>61%</b>
German Power	+ 4 %	16.78%	13.12%	<b>Price Benchmark LEBA UK Day Ahead 64.99 £/MWh</b>			
French Power	- 11 %	26.73%	17.15%				
Nordic Power	+ 5 %	100.00%	100.00%				
Italian Power	+ 31 %	83.09%	68.24%				
Spanish Power	- 2 %	74.57%	60.29%				
Netherlands Power	- 3 %	17.91%	18.69%				
Belgian Power	+ 64 %	14.08%	1.71%				
Central & Eastern Europe	- 26 %	21.55%	5.13%				
Other Power	- 10 %	16.00%	4.30%				
<b>Total European Power</b>	<b>+ 2 %</b>	<b>25.56%</b>	<b>19.23%</b>				
<b><u>European Financial Coal Swaps (MT)</u></b>							
API 2 Rotterdam	- 29 %	100.00%	100.00%	<b>Price Benchmark LEBA API 2 Front Month 99.97 US\$/MT</b>			
API 4 Richards Bay	- 27 %	100.00%	99.28%				
globalCOAL NEWC®	- 31 %	96.26%	99.95%				
<b>Total Coal</b>	<b>- 30 %</b>	<b>99.45%</b>	<b>99.94%</b>		<b>- 4 %</b>	<b>+ 3 %</b>	<b>10%</b>
<b><u>European Carbon Emission Allowances (MT)</u></b>							
EUA	+ 87 %	98.53%	80.60%	<b>Price Benchmark LEBA EUA Spot Average 19.53 €/MT</b>			
CER	- 82 %	100.00%	13.02%				
Other Emissions	0.00%	100.00%	N/A				
<b>Total Emissions</b>	<b>+ 83 %</b>	<b>98.54%</b>	<b>79.53%</b>		<b>- 24 %</b>	<b>+ 121 %</b>	<b>59%</b>

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.

The LEBA member firms that currently operate in the European gas, power, coal and emissions markets are:

<b>42Financial Services</b>	<a href="http://www.42fs.com">www.42fs.com</a>	<b>BGC Partners LP</b>	<a href="http://www.bgcpartners.com">www.bgcpartners.com</a>
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