

**LONDON ENERGY BROKERS' ASSOCIATION OTC ENERGY VOLUME REPORT – MARCH 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	March 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>559,940,365</b>	<b>105,650,328</b>	<b>665,590,693</b>	<b>1,786,975,946</b>	<b>286,215,160</b>	<b>2,073,191,106</b>
<b><u>European Hubs</u></b>						
Netherlands TTF	1,905,518,706	124,743,567	2,030,262,273	5,248,510,535	352,880,169	5,601,390,704
Germany NCG	149,803,381	0	149,803,381	438,002,324	108,432	438,110,756
Germany GasPool	96,801,393	0	96,801,393	249,963,344	130,368	250,093,712
France PEG	121,142,783	908,400	122,051,183	211,856,884	1,541,280	213,398,164
France TRS	6,993,810	0	6,993,810	15,873,964	341,600	16,215,564
Austria VTP	43,707,278	0	43,707,278	150,526,587	70,560	150,597,147
Italy PSV	91,551,601	574,224	92,125,825	239,061,387	3,624,096	242,685,483
Zeebrugge Hub	42,283,763	0	42,283,763	140,333,843	0	140,333,843
Other Gas	27,242,364	24,369,441	51,611,805	118,111,881	32,457,833	150,569,714
<b>Total European Gas</b>	<b>2,485,045,078</b>	<b>150,595,632</b>	<b>2,635,640,710</b>	<b>6,812,240,747</b>	<b>391,154,338</b>	<b>7,203,395,085</b>
<b><u>Power (MWh)</u></b>						
<b>UK Power</b>	<b>71,631,167</b>	<b>205,656</b>	<b>71,836,823</b>	<b>198,735,036</b>	<b>538,041</b>	<b>199,273,077</b>
<b><u>European Power</u></b>						
German Power	340,127,871	60,495,714	400,623,585	1,107,059,453	218,019,678	1,325,079,131
French Power	48,402,247	12,323,808	60,726,055	159,727,844	39,941,726	199,669,570
Nordic Power	0	19,137,921	19,137,921	0	67,715,540	67,715,540
Italian Power	6,974,397	22,018,218	28,992,615	23,391,613	78,528,779	101,920,392
Spanish Power	3,635,368	3,496,277	7,131,645	12,532,957	15,607,733	28,140,690
Netherlands Power	20,465,174	6,106,276	26,571,450	42,620,137	16,906,211	59,526,348
Belgian Power	4,317,205	291,597	4,608,802	12,146,860	1,274,297	13,421,157
Central & Eastern Europe	22,403,097	2,245,855	24,648,952	84,537,136	8,114,249	92,651,385
Other Power	12,970,663	279,858	13,250,521	36,660,577	1,357,712	38,018,289
<b>Total European Power</b>	<b>459,296,022</b>	<b>126,395,524</b>	<b>585,691,546</b>	<b>1,478,676,577</b>	<b>447,465,925</b>	<b>1,926,142,502</b>
<b><u>European Financial Coal Swaps (MT)</u></b>						
API 2 Rotterdam	0	52,777,000	52,777,000	0	171,918,000	171,918,000
API 4 Richards Bay	0	6,458,000	6,458,000	15,000	22,258,000	22,273,000
globalCOAL NEWC®	0	10,425,000	10,425,000	242,000	31,942,000	32,184,000
<b>Total European Financial Coal</b>	<b>0</b>	<b>69,660,000</b>	<b>69,660,000</b>	<b>257,000</b>	<b>226,118,000</b>	<b>226,375,000</b>
<b><u>European Carbon Emission Allowances (MT)</u></b>						
EUA	9,972,024	402,896,209	412,868,233	78,727,024	812,869,488	891,596,512
CER	0	350,000	350,000	0	1,255,000	1,255,000
Other Emissions	0	0	0	0	0	0
<b>Total European Carbon Emissions</b>	<b>9,972,024</b>	<b>403,246,209</b>	<b>413,218,233</b>	<b>78,727,024</b>	<b>814,124,488</b>	<b>892,851,512</b>

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

	Grand Total OTC Volume			Grand Total OTC Volume		
	March 2017	March 2018	% Change	Year to Date 2017	Year to Date 2018	% Change
<b><u>Natural Gas (MWh)</u></b>						
<b>UK NBP</b>	<b>806,489,635</b>	<b>665,590,693</b>	<b>-17.47%</b>	<b>2,306,988,889</b>	<b>2,073,191,106</b>	<b>-10.13%</b>
<b><u>European Hubs</u></b>						
Netherlands TTF	1,692,176,806	2,030,262,273	19.98%	4,385,680,001	5,601,390,704	27.72%
Germany NCG	163,746,264	149,803,381	-8.51%	421,266,816	438,110,756	4.00%
Germany GasPool	84,657,342	96,801,393	14.34%	217,213,862	250,093,712	15.14%
France PEG	35,777,767	122,051,183	241.14%	100,881,981	213,398,164	111.53%
France TRS	7,328,898	6,993,810	-4.57%	18,344,201	16,215,564	-11.60%
Austria VTP	50,768,716	43,707,278	-13.91%	133,298,745	150,597,147	12.98%
Italy PSV	144,462,946	92,125,825	-36.23%	266,109,798	242,685,483	-8.80%
Zeebrugge Hub	62,906,130	42,283,763	-32.78%	159,962,944	140,333,843	-12.27%
Other Gas	37,259,843	51,611,805	38.52%	105,630,379	150,569,714	42.54%
<b>Total European Gas</b>	<b>2,279,084,712</b>	<b>2,635,640,710</b>	<b>15.64%</b>	<b>5,808,388,727</b>	<b>7,203,395,085</b>	<b>24.02%</b>
<b><u>Power (MWh)</u></b>						
<b>UK Power</b>	<b>95,717,450</b>	<b>71,836,823</b>	<b>-24.95%</b>	<b>282,102,852</b>	<b>199,273,077</b>	<b>-29.36%</b>
<b><u>European Power</u></b>						
German Power	491,967,930	400,623,585	-18.57%	1,354,102,314	1,325,079,131	-2.14%
French Power	59,799,732	60,726,055	1.55%	138,661,252	199,669,570	44.00%
Nordic Power	29,700,659	19,137,921	-35.56%	75,252,979	67,715,540	-10.02%
Italian Power	34,181,725	28,992,615	-15.18%	91,768,828	101,920,392	11.06%
Spanish Power	13,314,175	7,131,645	-46.44%	31,521,882	28,140,690	-10.73%
Netherlands Power	20,571,212	26,571,450	29.17%	52,140,728	59,526,348	14.16%
Belgian Power	4,268,329	4,608,802	7.98%	12,428,877	13,421,157	7.98%
Central & Eastern Europe	50,243,574	24,648,952	-50.94%	116,945,351	92,651,385	-20.77%
Other Power	25,279,735	13,250,521	-47.58%	72,296,925	38,018,289	-47.41%
<b>Total European Power</b>	<b>729,327,071</b>	<b>585,691,546</b>	<b>-19.69%</b>	<b>1,945,119,136</b>	<b>1,926,142,502</b>	<b>-0.98%</b>
<b><u>European Financial Coal Swaps (MT)</u></b>						
API 2 Rotterdam	86,976,000	52,777,000	-39.32%	261,727,000	171,918,000	-34.31%
API 4 Richards Bay	11,482,000	6,458,000	-43.76%	32,400,000	22,273,000	-31.26%
globalCOAL NEWC®	21,605,000	10,425,000	-51.75%	66,599,500	32,184,000	-51.68%
<b>Total European Financial Coal</b>	<b>120,063,000</b>	<b>69,660,000</b>	<b>-41.98%</b>	<b>360,726,500</b>	<b>226,375,000</b>	<b>-37.24%</b>
<b><u>European Carbon Emission Allowances (MT)</u></b>						
EUA	133,539,000	412,868,233	209.17%	461,726,000	891,596,512	93.10%
CER	12,025,090	350,000	-97.09%	22,298,600	1,255,000	-94.37%
Other Emissions	0	0	N/A	0	0	N/A
<b>Total European Carbon Emissions</b>	<b>145,564,090</b>	<b>413,218,233</b>	<b>183.87%</b>	<b>484,024,600</b>	<b>892,851,512</b>	<b>84.46%</b>

	YTD Total OTC Market Volume Change 1 year	Proportion Cleared OTC March 2018	Proportion Cleared OTC March 2017	Average Price March 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>15.87%</b>	<b>11.21%</b>				
Netherlands TTF	+ 28 %	6.14%	4.25%	<b>Price Benchmark LEBA TTF Day Ahead 23.23 €/MWh</b>			
Germany NCG	+ 4 %	0.00%	0.00%				
Germany GasPool	+ 15 %	0.00%	0.06%				
France PEG	+ 112 %	0.74%	0.17%				
France TRS	- 12 %	0.00%	0.00%				
Austria VTP	+ 13 %	0.00%	0.13%				
Italy PSV	- 9 %	0.62%	0.18%				
Zeebrugge Hub	- 12 %	0.00%	0.00%				
Other Gas	+ 43 %	47.22%	5.55%				
<b>Total European Gas</b>	<b>+ 24 %</b>	<b>5.71%</b>	<b>3.27%</b>		<b>- 65 %</b>	<b>+ 10 %</b>	<b>284%</b>
<b><u>Power (MWh)</u></b>							
<b>UK Power</b>	<b>- 29 %</b>	<b>0.29%</b>	<b>0.16%</b>		<b>- 42 %</b>	<b>+ 10 %</b>	<b>221%</b>
German Power	- 2 %	15.10%	20.05%	<b>Price Benchmark LEBA UK Day Ahead 56.74 £/MWh</b>			
French Power	+ 44 %	20.29%	18.66%				
Nordic Power	- 10 %	100.00%	100.00%				
Italian Power	+ 11 %	75.94%	60.60%				
Spanish Power	- 11 %	49.02%	48.69%				
Netherlands Power	+ 14 %	22.98%	35.91%				
Belgian Power	+ 8 %	6.33%	8.96%				
Central & Eastern Europe	- 21 %	9.11%	0.36%				
Other Power	- 47 %	2.11%	1.63%				
<b>Total European Power</b>	<b>- 1 %</b>	<b>21.58%</b>	<b>24.00%</b>				
<b><u>European Financial Coal Swaps (MT)</u></b>							
API 2 Rotterdam	- 34 %	100.00%	100.00%	<b>Price Benchmark LEBA API 2 Front Month 80.24 US\$/MT</b>			
API 4 Richards Bay	- 31 %	100.00%	100.00%				
globalCOAL NEWC®	- 52 %	100.00%	96.37%				
<b>Total Coal</b>	<b>- 37 %</b>	<b>100.00%</b>	<b>99.35%</b>		<b>+ 0 %</b>	<b>+ 2 %</b>	<b>10%</b>
<b><u>European Carbon Emission Allowances (MT)</u></b>							
EUA	+ 93 %	97.58%	76.90%	<b>Price Benchmark LEBA EUA Spot Average 11.51 €/MT</b>			
CER	- 94 %	100.00%	3.12%				
Other Emissions	N/A	N/A	N/A				
<b>Total Emissions</b>	<b>+ 84 %</b>	<b>97.59%</b>	<b>70.80%</b>		<b>+ 32 %</b>	<b>+ 153 %</b>	<b>51%</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:

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