

**LONDON ENERGY BROKERS' ASSOCIATION OTC ENERGY VOLUME REPORT – DECEMBER 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	December 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
<b><u>Natural Gas (MWh)</u></b>						
<b>UK NBP</b>	<b>507,430,711</b>	<b>66,456,375</b>	<b>573,887,086</b>	<b>7,144,793,524</b>	<b>1,092,895,866</b>	<b>8,237,689,391</b>
<b><u>European Hubs</u></b>						
Netherlands TTF	1,259,494,787	87,333,708	1,346,828,495	14,653,966,078	938,445,469	15,592,411,547
Germany NCG	126,028,847	197,280	126,226,127	1,487,638,573	2,265,413	1,489,903,986
Germany GasPool	86,077,432	89,280	86,166,712	991,128,573	1,600,060	992,728,633
France PEG	24,859,406	216,360	25,075,766	411,712,398	2,602,920	414,315,318
France TRS	1,624,140	0	1,624,140	52,131,814	0	52,131,814
Austria VTP	35,231,245	0	35,231,245	443,320,395	155,520	443,475,915
Italy PSV	57,587,872	1,336,320	58,924,192	870,887,850	8,405,170	879,293,020
Zeebrugge Hub	33,054,857	0	33,054,857	506,701,653	0	506,701,653
Other Gas	37,460,731	545,760	38,006,491	430,361,769	12,728,840	443,090,609
<b>Total European Gas</b>	<b>1,661,419,316</b>	<b>89,718,708</b>	<b>1,751,138,024</b>	<b>19,847,849,103</b>	<b>966,203,392</b>	<b>20,814,052,495</b>
<b><u>Power (MWh)</u></b>						
<b>UK Power</b>	<b>59,692,040</b>	<b>163,668</b>	<b>59,855,708</b>	<b>953,600,091</b>	<b>4,309,967</b>	<b>957,910,058</b>
<b><u>European Power</u></b>						
German Power	292,489,351	78,755,639	371,244,990	4,403,671,148	859,253,082	5,262,924,230
French Power	51,683,884	18,158,209	69,842,093	689,868,077	141,122,607	830,990,684
Nordic Power	0	18,686,640	18,686,640	0	269,360,446	269,360,446
Italian Power	11,728,090	33,132,153	44,860,243	133,128,763	250,118,551	383,247,314
Spanish Power	6,331,341	6,317,535	12,648,876	58,883,992	68,128,538	127,012,530
Netherlands Power	13,004,122	4,516,066	17,520,188	185,178,334	60,415,460	245,593,794
Belgian Power	4,137,217	323,318	4,460,535	48,866,835	3,091,552	51,958,387
Central & Eastern Europe	40,953,462	3,940,695	44,894,157	477,436,517	22,200,342	499,636,859
Other Power	12,287,952	1,322,723	13,610,675	189,553,631	4,849,662	194,403,293
<b>Total European Power</b>	<b>432,615,419</b>	<b>165,152,978</b>	<b>597,768,397</b>	<b>6,186,587,297</b>	<b>1,678,540,240</b>	<b>7,865,127,537</b>
<b><u>European Financial Coal Swaps (MT)</u></b>						
API 2 Rotterdam	0	32,910,000	32,910,000	105,000	849,442,500	849,547,500
API 4 Richards Bay	0	4,856,000	4,856,000	100,000	96,603,000	96,703,000
globalCOAL NEWC®	240,000	7,588,000	7,828,000	6,359,000	180,774,000	187,133,000
<b>Total European Financial Coal</b>	<b>240,000</b>	<b>45,354,000</b>	<b>45,594,000</b>	<b>6,564,000</b>	<b>1,126,819,500</b>	<b>1,133,383,500</b>
<b><u>European Carbon Emission Allowances (MT)</u></b>						
EUA	17,874,000	139,512,000	157,386,000	473,550,000	1,705,110,030	2,178,660,030
CER	0	100,000	100,000	47,258,542	3,678,000	50,936,542
Other Emissions	0	0	0	0	0	0
<b>Total European Carbon Emissions</b>	<b>17,874,000</b>	<b>139,612,000</b>	<b>157,486,000</b>	<b>520,808,542</b>	<b>1,708,788,030</b>	<b>2,229,596,572</b>

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

	Grand Total OTC Volume			Grand Total OTC Volume		
	December 2016	December 2017	% Change	Year to Date 2016	Year to Date 2017	% Change
<b>Natural Gas (MWh)</b>						
<b>UK NBP</b>	<b>445,229,331</b>	<b>573,887,086</b>	<b>28.90%</b>	<b>9,585,668,301</b>	<b>8,237,689,391</b>	<b>-14.06%</b>
<b>European Hubs</b>						
Netherlands TTF	1,046,802,241	1,346,828,495	28.66%	16,607,473,635	15,592,411,547	-6.11%
Germany NCG	169,960,488	126,226,127	-25.73%	1,785,460,374	1,489,903,986	-16.55%
Germany GasPool	55,870,449	86,166,712	54.23%	989,312,676	992,728,633	0.35%
France PEG	25,978,229	25,075,766	-3.47%	426,307,101	414,315,318	-2.81%
France TRS	3,175,410	1,624,140	-48.85%	48,272,465	52,131,814	7.99%
Austria VTP	26,763,224	35,231,245	31.64%	494,319,490	443,475,915	-10.29%
Italy PSV	55,344,048	58,924,192	6.47%	856,629,798	879,293,020	2.65%
Zeebrugge Hub	55,369,227	33,054,857	-40.30%	751,970,566	506,701,653	-32.62%
Other Gas	37,740,121	38,006,491	0.71%	438,783,215	443,090,609	0.98%
<b>Total European Gas</b>	<b>1,477,003,436</b>	<b>1,751,138,024</b>	<b>18.56%</b>	<b>22,398,529,320</b>	<b>20,814,052,495</b>	<b>-7.07%</b>
<b>Power (MWh)</b>						
<b>UK Power</b>	<b>89,938,310</b>	<b>59,855,708</b>	<b>-33.45%</b>	<b>1,337,066,130</b>	<b>957,910,058</b>	<b>-28.36%</b>
<b>European Power</b>						
German Power	372,205,848	371,244,990	-0.26%	5,517,882,800	5,262,924,230	-4.62%
French Power	74,915,859	69,842,093	-6.77%	1,194,460,532	830,990,684	-30.43%
Nordic Power	18,838,819	18,686,640	-0.81%	308,684,275	269,360,446	-12.74%
Italian Power	41,767,671	44,860,243	7.40%	576,954,569	383,247,314	-33.57%
Spanish Power	13,339,875	12,648,876	-5.18%	161,590,502	127,012,530	-21.40%
Netherlands Power	18,511,450	17,520,188	-5.35%	215,410,255	245,593,794	14.01%
Belgian Power	4,995,920	4,460,535	-10.72%	46,950,060	51,958,387	10.67%
Central & Eastern Europe	50,114,744	44,894,157	-10.42%	452,109,425	499,636,859	10.51%
Other Power	19,105,280	13,610,675	-28.76%	253,252,122	194,403,293	-23.24%
<b>Total European Power</b>	<b>613,795,466</b>	<b>597,768,397</b>	<b>-2.61%</b>	<b>8,727,294,540</b>	<b>7,865,127,537</b>	<b>-9.88%</b>
<b>European Financial Coal Swaps (MT)</b>						
API 2 Rotterdam	66,072,000	32,910,000	-50.19%	2,073,764,800	849,547,500	-59.03%
API 4 Richards Bay	10,312,000	4,856,000	-52.91%	238,371,500	96,703,000	-59.43%
globalCOAL NEWC®	26,949,000	7,828,000	-70.95%	389,372,500	187,133,000	-51.94%
<b>Total European Financial Coal</b>	<b>103,333,000</b>	<b>45,594,000</b>	<b>-55.88%</b>	<b>2,701,508,800</b>	<b>1,133,383,500</b>	<b>-58.05%</b>
<b>European Carbon Emission Allowances (MT)</b>						
EUA	224,614,000	157,386,000	-29.93%	1,684,835,884	2,178,660,030	29.31%
CER	5,585,089	100,000	-98.21%	35,150,641	50,936,542	44.91%
Other Emissions	0	0	0.00%	15,691,350	0	-100.00%
<b>Total European Carbon Emissions</b>	<b>230,199,089</b>	<b>157,486,000</b>	<b>-31.59%</b>	<b>1,735,677,875</b>	<b>2,229,596,572</b>	<b>28.46%</b>

	YTD Total OTC Market Volume Change 1 year	Proportion Cleared OTC December 2017	Proportion Cleared OTC December 2016	Average Price December 2017	Price Change 1 Month	Price Change 1 Year	Historical Volatility 1 Month
<b><u>Natural Gas (MWh)</u></b>							
<b>UK NBP</b>	<b>- 14 %</b>	<b>11.58%</b>	<b>9.09%</b>				
Netherlands TTF	- 6 %	6.48%	4.19%	<b>Price Benchmark LEBA TTF Day Ahead 20.87 €/MWh</b>			
Germany NCG	- 17 %	0.16%	0.00%				
Germany GasPool	+ 0 %	0.10%	0.00%				
France PEG	- 3 %	0.86%	0.00%				
France TRS	+ 8 %	0.00%	0.00%				
Austria VTP	- 10 %	0.00%	0.00%				
Italy PSV	+ 3 %	2.27%	1.18%				
Zeebrugge Hub	- 33 %	0.00%	0.00%				
Other Gas	+ 1 %	1.44%	7.30%				
<b>Total European Gas</b>	<b>- 7 %</b>	<b>5.12%</b>	<b>3.20%</b>			<b>- 6 %</b>	<b>- 0 %</b>
<b><u>Power (MWh)</u></b>							
<b>UK Power</b>	<b>- 28 %</b>	<b>0.27%</b>	<b>0.06%</b>		<b>- 0 %</b>	<b>+ 3 %</b>	<b>87%</b>
German Power	- 5 %	21.21%	21.03%	<b>Price Benchmark LEBA UK Day Ahead 55.55 £/MWh</b>			
French Power	- 30 %	26.00%	20.76%				
Nordic Power	- 13 %	100.00%	100.00%				
Italian Power	- 34 %	73.86%	53.41%				
Spanish Power	- 21 %	49.95%	59.09%				
Netherlands Power	+ 14 %	25.78%	27.27%				
Belgian Power	+ 11 %	7.25%	15.45%				
Central & Eastern Europe	+ 11 %	8.78%	2.99%				
Other Power	- 23 %	9.72%	6.25%				
<b>Total European Power</b>	<b>- 10 %</b>	<b>27.63%</b>	<b>24.66%</b>				
<b><u>European Financial Coal Swaps (MT)</u></b>							
API 2 Rotterdam	- 59 %	100.00%	100.00%	<b>Price Benchmark LEBA API 2 Front Month 94.48 US\$/MT</b>			
API 4 Richards Bay	- 59 %	100.00%	98.06%				
globalCOAL NEWC®	- 52 %	96.93%	80.02%				
<b>Total Coal</b>	<b>- 58 %</b>	<b>99.47%</b>	<b>94.60%</b>		<b>+ 2 %</b>	<b>+ 5 %</b>	<b>5%</b>
<b><u>European Carbon Emission Allowances (MT)</u></b>							
EUA	+ 29 %	88.64%	97.65%	<b>Price Benchmark LEBA EUA Spot Average 7.52 €/MT</b>			
CER	+ 45 %	100.00%	34.95%				
Other Emissions	- 100 %	N/A	N/A				
<b>Total Emissions</b>	<b>+ 28 %</b>	<b>88.65%</b>	<b>96.12%</b>		<b>+ 7 %</b>	<b>+ 29 %</b>	<b>31%</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



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.

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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