

LONDON ENERGY BROKERS' ASSOCIATION OTC ENERGY VOLUME REPORT – DECEMBER 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	December 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
Natural Gas (MWh)						
UK NBP	288,475,691	36,983,753	325,459,444	6,048,940,223	1,086,698,487	7,135,638,710
European Hubs						
Netherlands TTF	1,233,855,141	136,105,822	1,369,960,963	19,545,132,349	1,704,959,549	21,250,091,898
Germany NCG	77,736,522	101,226	77,837,748	1,498,402,984	610,554	1,499,013,538
Germany GasPool	77,781,303	0	77,781,303	972,547,978	1,440,230	973,988,208
France PEG	45,407,261	0	45,407,261	575,017,562	5,487,770	580,505,332
Austria VTP	35,341,615	25,296	35,366,911	518,553,435	577,008	519,130,443
Italy PSV	92,759,958	306,720	93,066,678	979,318,349	7,032,600	986,350,949
Zeebrugge Hub	16,731,711	0	16,731,711	457,554,827	454,846	458,009,674
Other Gas	20,818,112	1,803,600	22,621,712	354,608,387	88,781,493	443,389,880
Total European Gas	1,600,431,623	138,342,664	1,738,774,287	24,926,156,581	1,809,685,650	26,735,842,231
Power (MWh)						
UK Power	52,234,108	3,600	52,237,708	882,452,118	1,341,633	883,793,751
European Power						
German Power	230,909,865	73,697,250	304,607,115	4,414,986,120	915,176,918	5,330,163,038
French Power	31,131,193	15,459,071	46,590,264	516,820,145	160,587,508	677,407,653
Nordic Power	11,904	20,284,437	20,296,341	11,904	279,754,163	279,766,067
Italian Power	8,744,817	32,770,827	41,515,644	103,162,587	373,640,127	476,802,714
Spanish Power	2,593,098	10,982,196	13,575,294	39,974,223	86,905,280	126,879,503
Netherlands Power	10,885,967	3,230,206	14,116,173	174,843,638	46,154,092	220,997,730
Belgian Power	3,638,190	299,990	3,938,180	64,617,899	9,466,985	74,084,884
Central & Eastern Europe	17,799,154	6,267,036	24,066,190	283,865,544	68,724,590	352,590,134
Swiss Power	5,787,685	630,240	6,417,925	13,234,794	1,134,858	14,369,652
Other Power	10,497,621	4,010,670	14,508,291	159,801,768	14,560,581	174,362,349
Total European Power	321,999,494	167,631,923	489,631,417	5,771,318,622	1,956,105,102	7,727,423,724
European Financial Coal Swaps (MT)						
API 2 Rotterdam	0	30,603,000	30,603,000	3,000	640,322,500	640,325,500
API 4 Richards Bay	0	2,242,000	2,242,000	20,000	69,395,500	69,415,500
globalCOAL NEWC®	0	3,245,500	3,245,500	2,141,000	126,836,500	128,977,500
Total European Financial Coal	0	36,090,500	36,090,500	2,164,000	836,554,500	838,718,500
European Carbon Emission Allowances (MT)						
EUA	4,604,000	274,710,000	279,314,000	211,856,000	3,111,701,000	3,323,557,000
CER	0	980,000	980,000	0	6,386,000	6,386,000
Other Emissions	0	0	0	0	1,965,000	1,965,000
Total European Carbon Emissions	4,604,000	275,690,000	280,294,000	211,856,000	3,120,052,000	3,331,908,000

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

	Grand Total OTC Volume			Grand Total OTC Volume		
	December	December	%	Year to Date	Year to Date	%
	2017	2018	Change	2017	2018	Change
<u>Natural Gas (MWh)</u>						
UK NBP	573,887,086	325,459,444	-43.29%	8,237,689,391	7,135,638,710	-13.38%
<u>European Hubs</u>						
Netherlands TTF	1,346,828,495	1,369,960,963	1.72%	15,592,411,547	21,250,091,898	36.28%
Germany NCG	126,226,127	77,837,748	-38.33%	1,489,903,986	1,499,013,538	0.61%
Germany GasPool	86,166,712	77,781,303	-9.73%	992,728,633	973,988,208	-1.89%
France PEG*	25,075,766	45,407,261	81.08%	414,315,318	580,505,332	40.11%
Austria VTP	35,231,245	35,366,911	0.39%	443,475,915	519,130,443	17.06%
Italy PSV	58,924,192	93,066,678	57.94%	879,293,020	986,350,949	12.18%
Zeebrugge Hub	33,054,857	16,731,711	-49.38%	506,701,653	458,009,674	-9.61%
Other Gas	38,006,491	22,621,712	-40.48%	443,090,609	443,389,880	0.07%
Total European Gas	1,751,138,024	1,738,774,287	-0.71%	20,814,052,495	26,735,842,231	28.45%
<u>Power (MWh)</u>						
UK Power	59,855,708	52,237,708	-12.73%	957,910,058	883,793,751	-7.74%
<u>European Power</u>						
German Power	371,244,990	304,607,115	-17.95%	5,262,924,230	5,330,163,038	1.28%
French Power	69,842,093	46,590,264	-33.29%	830,990,684	677,407,653	-18.48%
Nordic Power	18,686,640	20,296,341	8.61%	269,360,446	279,766,067	3.86%
Italian Power	44,860,243	41,515,644	-7.46%	383,247,314	476,802,714	24.41%
Spanish Power	12,648,876	13,575,294	7.32%	127,012,530	126,879,503	-0.10%
Netherlands Power	17,520,188	14,116,173	-19.43%	245,593,794	220,997,730	-10.01%
Belgian Power	4,460,535	3,938,180	-11.71%	51,958,387	74,084,884	42.59%
Central & Eastern Europe	44,894,157	24,066,190	-46.39%	499,636,859	352,590,134	-29.43%
Swiss Power	N/A	6,417,925	N/A	N/A	14,369,652	N/A
Other Power**	13,610,675	14,508,291	6.59%	194,403,293	174,362,349	-10.31%
Total European Power	597,768,397	489,631,417	-18.09%	7,865,127,537	7,727,423,724	-1.75%
<u>European Financial Coal Swaps (MT)</u>						
API 2 Rotterdam	32,910,000	30,603,000	-7.01%	849,547,500	640,325,500	-24.63%
API 4 Richards Bay	4,856,000	2,242,000	-53.83%	96,703,000	69,415,500	-28.22%
globalCOAL NEWC®	7,828,000	3,245,500	-58.54%	187,133,000	128,977,500	-31.08%
Total European Financial Coal	45,594,000	36,090,500	-20.84%	1,133,383,500	838,718,500	-26.00%
<u>European Carbon Emission Allowances (MT)</u>						
EUA	157,386,000	279,314,000	77.47%	2,178,660,030	3,323,557,000	52.55%
CER	100,000	980,000	880.00%	50,936,542	6,386,000	-87.46%
Other Emissions	0	0	0.00%	0	1,965,000	100.00%
Total European Carbon Emissions	157,486,000	280,294,000	77.98%	2,229,596,572	3,331,908,000	49.44%

Notes:

* Month and Year to Date comparisons for 'France PEG', which now covers TRF, will be made against previous France PEG volumes.

** Month and Year to Date comparisons for 'Other Power' will be made against volumes that previously included Swiss Power.

	YTD Total OTC Market Volume Change 1 year	Proportion Cleared OTC December 2018	Proportion Cleared OTC December 2017	Average Price December 2018	Price Change 1 Month	Price Change 1 Year	Historical Volatility 1 Month
Natural Gas (MWh)							
UK NBP	- 13 %	11.36%	11.58%				
Netherlands TTF	+ 36 %	9.94%	6.48%	Monthly Average LEBA TTF Day Ahead 23.74 €/MWh			
Germany NCG	+ 1 %	0.13%	0.16%				
Germany GasPool	- 2 %	0.00%	0.10%				
France PEG	+ 40 %	0.00%	0.86%				
Austria VTP	+ 17 %	0.07%	0.00%				
Italy PSV	+ 12 %	0.33%	2.27%				
Zeebrugge Hub	- 10 %	0.00%	0.00%				
Other Gas	+ 0 %	7.97%	1.44%				
Total European Gas	+ 28 %	7.96%	5.12%			- 12 %	+ 11 %
Power (MWh)							
UK Power	- 8 %	0.01%	0.27%		- 6 %	+ 23 %	96%
German Power	+ 1 %	24.19%	21.21%	Monthly Average LEBA UK Power Day Ahead 64.14 £/MWh			
French Power	- 18 %	33.18%	26.00%				
Nordic Power	+ 4 %	99.94%	100.00%				
Italian Power	+ 24 %	78.94%	73.86%				
Spanish Power	- 0 %	80.90%	49.95%				
Netherlands Power	- 10 %	22.88%	25.78%				
Belgian Power	+ 43 %	7.62%	7.25%				
Central & Eastern Europe	- 29 %	26.04%	8.78%				
Swiss Power	N/A	9.82%	N/A				
Other Power	- 10 %	27.64%	9.72%				
Total European Power	- 2 %	34.24%	27.63%				
European Financial Coal Swaps (MT)							
API 2 Rotterdam	- 25 %	100.00%	100.00%	Monthly Average LEBA API 2 Front Month 87.34 US\$/MT			
API 4 Richards Bay	- 28 %	100.00%	100.00%				
globalCOAL NEWC®	- 31 %	100.00%	96.93%				
Total Coal	- 26 %	100.00%	99.47%		+ 2 %	- 9 %	16%
European Carbon Emission Allowances (MT)							
EUA	+ 53 %	98.35%	88.64%	Monthly Average LEBA EUA Spot 22.55 €/MT			
CER	- 87 %	100.00%	100.00%				
Other Emissions	100.00%	N/A	N/A				
Total Emissions	+ 49 %	98.36%	88.65%		+ 20 %	+ 202 %	41%

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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