

LONDON ENERGY BROKERS' ASSOCIATION OTC ENERGY VOLUME REPORT – MAY 2019

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	May 2019			2019 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	392,047,137	55,721,067	447,768,204	2,274,305,914	332,376,013	2,606,681,927
European Hubs						
Netherlands TTF	1,957,860,456	192,854,350	2,150,714,806	10,862,077,393	1,093,986,202	11,956,063,595
Germany NCG	154,105,096	227,760	154,332,856	919,505,959	2,414,840	921,920,799
Germany GasPool	95,613,145	0	95,613,145	565,967,686	61,488	566,029,174
France PEG	64,494,071	379,120	64,873,191	376,317,317	2,004,860	378,322,177
Austria VTP	65,037,201	0	65,037,201	290,127,526	2,847,000	292,974,526
Italy PSV	110,185,913	428,400	110,614,313	608,974,273	4,109,784	613,084,057
Zeebrugge Hub	22,959,272	1,073,112	24,032,384	169,016,470	1,155,172	170,171,642
Other Gas	28,121,810	1,177,560	29,299,370	125,664,204	7,296,375	132,960,579
Total European Gas	2,498,376,964	196,140,302	2,694,517,266	13,917,650,828	1,113,875,721	15,031,526,549
Power (MWh)						
UK Power	64,328,128	0	64,328,128	364,449,151	175,440	364,624,591
European Power						
German Power	271,313,126	76,815,130	348,128,256	1,514,958,544	514,613,794	2,029,572,338
French Power	29,293,382	12,549,366	41,842,748	152,093,524	58,768,835	210,862,359
Nordic Power	0	11,277,240	11,277,240	11,904	89,144,580	89,156,484
Italian Power	3,720,991	32,685,627	36,406,618	25,120,110	165,013,776	190,133,886
Spanish Power	2,400,190	8,712,271	11,112,461	14,506,702	50,821,783	65,328,485
Netherlands Power	12,463,076	2,109,615	14,572,691	69,294,067	12,378,965	81,673,032
Belgian Power	3,151,219	245,041	3,396,260	17,322,432	1,415,654	18,738,086
Central & Eastern Europe	14,756,833	11,648,388	26,405,221	73,456,118	44,338,872	117,794,990
Swiss Power	5,802,650	362,286	6,164,936	30,753,484	2,125,527	32,879,011
Other Power	8,064,875	4,411,049	12,475,924	45,552,929	11,194,861	56,747,790
Total European Power	350,966,342	160,816,013	511,782,355	1,943,069,814	949,816,647	2,892,886,461
European Financial Coal Swaps (MT)						
API 2 Rotterdam	0	51,186,500	51,186,500	6,000	307,992,000	307,998,000
API 4 Richards Bay	0	4,226,000	4,226,000	0	32,243,000	32,243,000
globalCOAL NEWC®	0	12,419,500	12,419,500	0	59,862,500	59,862,500
Total European Financial Coal	0	67,832,000	67,832,000	6,000	400,097,500	400,103,500
European Carbon Emission Allowances (MT)						
EUA	9,771,000	92,011,000	101,782,000	62,238,500	983,478,000	1,045,716,500
CER	0	250,000	250,000	0	1,103,000	1,103,000
Other Emissions	0	0	0	0	0	0
Total European Carbon Emissions	9,771,000	92,261,000	102,032,000	62,238,500	984,581,000	1,046,819,500

2018 and 2019 "Month" and "Year to Date" comparisons.

	Grand Total OTC Volume			Grand Total OTC Volume		
	May 2018	May 2019	% Change	Year to Date 2018	Year to Date 2019	% Change
<u>Natural Gas (MWh)</u>						
UK NBP	719,037,725	447,768,204	-37.73%	3,375,341,465	2,606,681,927	-22.77%
<u>European Hubs</u>						
Netherlands TTF	1,862,169,294	2,150,714,806	15.50%	8,963,283,088	11,956,063,595	33.39%
Germany NCG	137,778,551	154,332,856	12.02%	676,118,323	921,920,799	36.35%
Germany GasPool	83,581,147	95,613,145	14.40%	400,449,054	566,029,174	41.35%
France PEG*	23,140,474	64,873,191	180.35%	263,460,974	378,322,177	43.60%
Austria VTP	53,987,119	65,037,201	20.47%	234,500,188	292,974,526	24.94%
Italy PSV	92,966,580	110,614,313	18.98%	401,113,683	613,084,057	52.85%
Zeebrugge Hub	45,108,780	24,032,384	-46.72%	242,535,292	170,171,642	-29.84%
Other Gas	28,175,654	29,299,370	3.99%	211,028,059	132,960,579	-36.99%
Total European Gas	2,328,734,969	2,694,517,266	15.71%	11,412,708,937	15,031,526,549	31.71%
<u>Power (MWh)</u>						
UK Power	88,575,710	64,328,128	-27.37%	351,580,080	364,624,591	3.71%
<u>European Power</u>						
German Power	502,238,005	348,128,256	-30.68%	2,242,345,140	2,029,572,338	-9.49%
French Power	56,330,765	41,842,748	-25.72%	309,172,504	210,862,359	-31.80%
Nordic Power	32,421,903	11,277,240	-65.22%	119,868,024	89,156,484	-25.62%
Italian Power	53,829,135	36,406,618	-32.37%	189,103,494	190,133,886	0.54%
Spanish Power	12,606,386	11,112,461	-11.85%	48,091,562	65,328,485	35.84%
Netherlands Power	24,740,561	14,572,691	-41.10%	106,628,256	81,673,032	-23.40%
Belgian Power	8,030,841	3,396,260	-57.71%	26,364,048	18,738,086	-28.93%
Central & Eastern Europe	34,150,046	26,405,221	-22.68%	151,792,070	117,794,990	-22.40%
Swiss Power	N/A	6,164,936	N/A	N/A	32,879,011	N/A
Other Power**	19,172,670	12,475,924	-34.93%	70,781,353	56,747,790	-19.83%
Total European Power	743,520,312	511,782,355	-31.17%	3,264,146,451	2,892,886,461	-11.37%
<u>European Financial Coal Swaps (MT)</u>						
API 2 Rotterdam	47,736,500	51,186,500	7.23%	271,336,000	307,998,000	13.51%
API 4 Richards Bay	8,012,000	4,226,000	-47.25%	36,774,000	32,243,000	-12.32%
globalCOAL NEWC®	15,047,000	12,419,500	-17.46%	58,429,000	59,862,500	2.45%
Total European Financial Coal	70,795,500	67,832,000	-4.19%	366,539,000	400,103,500	9.16%
<u>European Carbon Emission Allowances (MT)</u>						
EUA	328,301,000	101,782,000	-69.00%	1,313,070,000	1,045,716,500	-20.36%
CER	0	250,000	100.00%	1,255,000	1,103,000	-12.11%
Other Emissions	0	0	0.00%	0	0	0.00%
Total European Carbon Emissions	328,301,000	102,032,000	-68.92%	1,314,325,000	1,046,819,500	-20.35%

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 May 2019	Proportion Cleared OTC May 2018	Average Price May 2019	Price Change 1 Month	Price Change 1 Year	Historical Volatility 1 Month
<u>Natural Gas (MWh)</u>							
UK NBP	- 23 %	12.44%	20.84%				
Netherlands TTF	+ 33 %	8.97%	11.13%	Monthly Average LEBA TTF Day Ahead 13.28 €/MWh			
Germany NCG	+ 36 %	0.15%	0.00%				
Germany GasPool	+ 41 %	0.00%	0.68%				
France PEG	+ 44 %	0.58%	0.66%				
Austria VTP	+ 25 %	0.00%	0.05%				
Italy PSV	+ 53 %	0.39%	0.56%				
Zeebrugge Hub	- 30 %	4.47%	0.00%				
Other Gas	- 37 %	4.02%	9.76%				
Total European Gas	+ 32 %	7.28%	9.07%		- 27 %	- 55 %	45%
<u>Power (MWh)</u>							
UK Power	+ 4 %	0.00%	0.00%		- 14 %	- 38 %	77%
German Power	- 9 %	22.07%	16.38%	Average LEBA UK Power Day Ahead 41.31 £/MWh			
French Power	- 32 %	29.99%	15.90%				
Nordic Power	- 26 %	100.00%	100.00%				
Italian Power	+ 1 %	89.78%	72.82%				
Spanish Power	+ 36 %	78.40%	67.25%				
Netherlands Power	- 23 %	14.48%	12.30%				
Belgian Power	- 29 %	7.22%	5.40%				
Central & Eastern Europe	- 22 %	44.11%	19.18%				
Swiss Power	N/A	5.88%	N/A				
Other Power	- 20 %	35.36%	2.42%				
Total European Power	- 11 %	31.42%	24.45%				
<u>European Financial Coal Swaps (MT)</u>							
API 2 Rotterdam	+ 14 %	100.00%	100.00%	Monthly Average LEBA API 2 Front Month 58.52 US\$/MT			
API 4 Richards Bay	- 12 %	100.00%	99.94%				
globalCOAL NEWC®	+ 2 %	100.00%	98.48%				
Total Coal	+ 9 %	100.00%	99.67%		+ 0 %	- 39 %	22%
<u>European Carbon Emission Allowances (MT)</u>							
EUA	- 20 %	90.40%	94.51%	Monthly Average LEBA EUA Spot 25.49 €/MT			
CER	- 12 %	100.00%	N/A				
Other Emissions	N/A	N/A	N/A				
Total Emissions	- 20 %	90.42%	94.51%		- 6 %	+ 64 %	36%

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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