

LONDON ENERGY BROKERS' ASSOCIATION OTC ENERGY VOLUME REPORT – JANUARY 2016

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.

CHANGE IN REPORT FORMAT & METHODOLOGY

LEBA have made the following changes to the Monthly Volume Report:

- France PEG and TRS have been separated from the previously combined 'France Hubs' to be reported in their own right.
- Netherlands and Belgian Power have been separated from 'Other Power' and are now reported in their own right.
- globalCOAL NEWC® has been added to the 'European Financial Coal Swaps' section of the report.

Due to these changes and the previously missing or combined volumes, LEBA are unable to provide comparable data for these line items under the 'Year to Date' comparisons and in these cases, have been represented by 'N/A'.

| Market | January 2016 | | | 2016 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 | 850,526,536 | 140,592,560 | 991,119,097 | 850,526,536 | 140,592,560 | 991,119,097 |
| European Hubs | | | | | | |
| Netherlands TTF | 1,459,363,528 | 79,984,184 | 1,539,347,712 | 1,459,363,528 | 79,984,184 | 1,539,347,712 |
| Germany NCG | 182,157,498 | 41,064 | 182,198,562 | 182,157,498 | 41,064 | 182,198,562 |
| Germany GasPool | 91,963,298 | 43,800 | 92,007,098 | 91,963,298 | 43,800 | 92,007,098 |
| France PEG | 42,925,613 | 130,770 | 43,056,383 | 42,925,613 | 130,770 | 43,056,383 |
| France TRS | 7,301,375 | 0 | 7,301,375 | 7,301,375 | 0 | 7,301,375 |
| Austria VTP | 36,366,857 | 0 | 36,366,857 | 36,366,857 | 0 | 36,366,857 |
| Italy PSV | 79,541,853 | 14,880 | 79,556,733 | 79,541,853 | 14,880 | 79,556,733 |
| Zeebrugge Hub | 76,095,520 | 0 | 76,095,520 | 76,095,520 | 0 | 76,095,520 |
| Other Gas | 54,193,079 | 0 | 54,193,079 | 54,193,079 | 0 | 54,193,079 |
| Total European Gas | 2,029,908,620 | 80,214,698 | 2,110,123,318 | 2,029,908,620 | 80,214,698 | 2,110,123,318 |
| Power (MWh) | | | | | | |
| UK Power | 130,292,315 | 263,280 | 130,555,595 | 130,292,315 | 263,280 | 130,555,595 |
| European Power | | | | | | |
| German Power | 366,853,028 | 107,517,041 | 474,370,069 | 366,853,028 | 107,517,041 | 474,370,069 |
| French Power | 105,877,404 | 27,440,248 | 133,317,652 | 105,877,404 | 27,440,248 | 133,317,652 |
| Nordic Power | 0 | 39,589,342 | 39,589,342 | 0 | 39,589,342 | 39,589,342 |
| Italian Power | 34,690,280 | 27,051,601 | 61,741,881 | 34,690,280 | 27,051,601 | 61,741,881 |
| Spanish Power | 7,814,037 | 7,425,661 | 15,239,698 | 7,814,037 | 7,425,661 | 15,239,698 |
| Netherlands Power | 19,573,041 | 2,711,666 | 22,284,707 | 19,573,041 | 2,711,666 | 22,284,707 |
| Belgian Power | 4,850,152 | 351,458 | 5,201,610 | 4,850,152 | 351,458 | 5,201,610 |
| Central & Eastern Europe | 39,694,865 | 299,385 | 39,994,250 | 39,694,865 | 299,385 | 39,994,250 |
| Other Power | 25,238,352 | 504,335 | 25,742,687 | 25,238,352 | 504,335 | 25,742,687 |
| Total European Power | 604,591,159 | 212,890,737 | 817,481,896 | 604,591,159 | 212,890,737 | 817,481,896 |
| European Financial Coal Swaps (MT) | | | | | | |
| API 2 Rotterdam | 240,000 | 286,306,000 | 286,546,000 | 240,000 | 286,306,000 | 286,546,000 |
| API 4 Richards Bay | 1,545,000 | 43,100,000 | 44,645,000 | 1,545,000 | 43,100,000 | 44,645,000 |
| globalCOAL NEWC® | 4,060,000 | 29,589,500 | 33,649,500 | 4,060,000 | 29,589,500 | 33,649,500 |
| Total European Financial Coal | 5,845,000 | 358,995,500 | 364,840,500 | 5,845,000 | 358,995,500 | 364,840,500 |
| European Carbon Emission Allowances (MT) | | | | | | |
| EUA | 11,120,000 | 108,148,442 | 119,268,442 | 11,120,000 | 108,148,442 | 119,268,442 |
| CER | 100,000 | 780,000 | 880,000 | 100,000 | 780,000 | 880,000 |
| Other Emissions | 12,037,000 | 0 | 12,037,000 | 12,037,000 | 0 | 12,037,000 |
| Total European Carbon Emissi | 23,257,000 | 108,928,442 | 132,185,442 | 23,257,000 | 108,928,442 | 132,185,442 |

2015 and 2016 January month and "Year to Date" comparisons.

| | Grand Total OTC Volume | | | Grand Total OTC Volume | | |
|--|------------------------|----------------------|---------------|------------------------|----------------------|---------------|
| | January 2015 | January 2016 | % Change | Year to Date 2015 | Year to Date 2016 | % Change |
| <u>Natural Gas (MWh)</u> | | | | | | |
| UK NBP | 1,091,445,439 | 991,119,097 | -9.19% | 1,091,445,439 | 991,119,097 | -9.19% |
| <u>European Hubs</u> | | | | | | |
| Netherlands TTF | 1,349,184,032 | 1,539,347,712 | 14.09% | 1,349,184,032 | 1,539,347,712 | 14.09% |
| Germany NCG | 145,112,128 | 182,198,562 | 25.56% | 145,112,128 | 182,198,562 | 25.56% |
| Germany GasPool | 136,092,158 | 92,007,098 | -32.39% | 136,092,158 | 92,007,098 | -32.39% |
| France PEG | N/A | 43,056,383 | N/A | N/A | 43,056,383 | N/A |
| France TRS | N/A | 7,301,375 | N/A | N/A | 7,301,375 | N/A |
| Austria VTP | 20,180,814 | 36,366,857 | 80.21% | 20,180,814 | 36,366,857 | 80.21% |
| Italy PSV | 33,919,254 | 79,556,733 | 134.55% | 33,919,254 | 79,556,733 | 134.55% |
| Zeebrugge Hub | 66,866,254 | 76,095,520 | 13.80% | 66,866,254 | 76,095,520 | 13.80% |
| Other Gas | 24,731,341 | 54,193,079 | 119.13% | 24,731,341 | 54,193,079 | 119.13% |
| Total European Gas | 1,816,035,854 | 2,110,123,318 | 16.19% | 1,816,035,854 | 2,110,123,318 | 16.19% |
| <u>Power (MWh)</u> | | | | | | |
| UK Power | 99,871,186 | 130,555,595 | 30.72% | 99,871,186 | 130,555,595 | 30.72% |
| <u>European Power</u> | | | | | | |
| German Power | 474,905,799 | 474,370,069 | -0.11% | 474,905,799 | 474,370,069 | -0.11% |
| French Power | 103,764,259 | 133,317,652 | 28.48% | 103,764,259 | 133,317,652 | 28.48% |
| Nordic Power | 18,477,117 | 39,589,342 | 114.26% | 18,477,117 | 39,589,342 | 114.26% |
| Italian Power | 66,710,081 | 61,741,881 | -7.45% | 66,710,081 | 61,741,881 | -7.45% |
| Spanish Power | 12,987,700 | 15,239,698 | 17.34% | 12,987,700 | 15,239,698 | 17.34% |
| Netherlands Power | N/A | 22,284,707 | N/A | N/A | 22,284,707 | N/A |
| Belgian Power | N/A | 5,201,610 | N/A | N/A | 5,201,610 | N/A |
| Central & Eastern Europe | 25,183,534 | 39,994,250 | 58.81% | 25,183,534 | 39,994,250 | 58.81% |
| Other Power | N/A | 25,742,687 | N/A | N/A | 25,742,687 | N/A |
| Total European Power | 748,266,230 | 817,481,896 | 9.25% | 748,266,230 | 817,481,896 | 9.25% |
| <u>European Financial Coal Swaps (MT)</u> | | | | | | |
| API 2 Rotterdam | 305,550,100 | 286,546,000 | -6.22% | 305,550,100 | 286,546,000 | -6.22% |
| API 4 Richards Bay | 38,495,500 | 44,645,000 | 15.97% | 38,495,500 | 44,645,000 | 15.97% |
| globalCOAL NEWC® | N/A | 33,649,500 | N/A | N/A | 33,649,500 | N/A |
| Total European Financial Coal | N/A | 364,840,500 | N/A | N/A | 364,840,500 | N/A |
| <u>European Carbon Emission Allowances (MT)</u> | | | | | | |
| EUA | 92,808,000 | 119,268,442 | 28.51% | 92,808,000 | 119,268,442 | 28.51% |
| CER | 4,030,000 | 880,000 | -78.16% | 4,030,000 | 880,000 | -78.16% |
| Other Emissions | 0 | 12,037,000 | #DIV/0! | 0 | 12,037,000 | #DIV/0! |
| Total European Carbon Emiss | 96,838,000 | 132,185,442 | 36.50% | 96,838,000 | 132,185,442 | 36.50% |

Continues below

| | YTD Total OTC Market Volume Change 1 year | Proportion Cleared OTC January 2016 | Proportion Cleared OTC January 2015 | Average Price January 2016 | Price Change 1 Month | Price Change 1 Year | Historical Volatility 1 Month |
|---|--|---|---|---|----------------------------|---------------------------|-------------------------------------|
| Natural Gas (MWh) | | | | | | | |
| UK NBP | - 9 % | 14.19% | 12.07% | | | | |
| Netherlands TTF | + 14 % | 5.20% | 6.55% | Benchmark LEBA TTF Day Ahead 13.76 €/MWh | | | |
| Germany NCG | + 26 % | 0.02% | 0.09% | | | | |
| Germany GasPool | - 32 % | 0.05% | 0.00% | | | | |
| France PEG | N/A | 0.30% | N/A | | | | |
| France TRS | N/A | 0.00% | N/A | | | | |
| Austria VTP | + 80 % | 0.00% | 0.00% | | | | |
| Italy PSV | + 135 % | 0.02% | 0.00% | | | | |
| Zeebrugge Hub | + 14 % | 0.00% | 0.00% | | | | |
| Other Gas | + 119 % | 0.00% | 2.75% | | | | |
| Total European Gas | + 16 % | 3.80% | 4.91% | | - 9 % | - 37 % | 49% |
| Power (MWh) | | | | | | | |
| UK Power | + 31 % | 0.20% | 0.60% | | - 12 % | - 19 % | 124% |
| German Power | - 0 % | 22.67% | 14.30% | Benchmark LEBA UK Day Ahead 36.92 €/MWh | | | |
| French Power | + 28 % | 20.58% | 11.61% | | | | |
| Nordic Power | + 114 % | 100.00% | 100.00% | | | | |
| Italian Power | - 7 % | 43.81% | 37.08% | | | | |
| Spanish Power | + 17 % | 48.73% | 27.06% | | | | |
| Netherlands Power | N/A | 12.17% | N/A | | | | |
| Belgian Power | N/A | 6.76% | N/A | | | | |
| Central & Eastern Europe | + 59 % | 0.75% | 0.05% | | | | |
| Other Power | N/A | 1.96% | N/A | | | | |
| Total European Power | + 9 % | 26.04% | 17.37% | | | | |
| European Financial Coal Swaps (MT) | | | | | | | |
| API 2 Rotterdam | - 6 % | 99.92% | 99.65% | Price Benchmark LEBA API 2 Front Month 46.31 US\$/MT | | | |
| API 4 Richards Bay | + 16 % | 96.54% | 99.78% | | | | |
| globalCOAL NEWC® | N/A | 87.93% | N/A | | | | |
| Total Coal | N/A | 98.40% | 99.66% | | - 4 % | - 22 % | 14% |
| European Carbon Emission Allowances (MT) | | | | | | | |
| EUA | + 29 % | 90.68% | 96.88% | Price Benchmark LEBA EUA Spot Average 6.8 €/MT | | | |
| CER | - 78 % | 88.64% | 100.00% | | | | |
| Other Emissions | N/A | 0.00% | N/A | | | | |
| Total Emissions | + 37 % | 82.41% | 97.01% | | - 25 % | - 14 % | 48% |

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 the daily logarithmic returns over the last month.
4. N/A - no comparable data due to change in methodology

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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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