Contents

Macro Economics .......................................................................................................................... 2
Oil Market: Brent $51.34/bbl, WTI $46.16/bbl ........................................................................ 4
European Gas Market NBP Price: 1.5484 pence/kWh ............................................................... 5
UK Electricity Market Average Buy Price: £43.02/MW ............................................................. 6
Coal Buy Price: £97.75/tonne .................................................................................................... 7
Carbon Buy Price: €6.02/tonne .................................................................................................. 7
News ........................................................................................................................................ 8
   Will Ofgem’s review provide us with a future-proofed energy system? ............................ 8
Macro Economics

<table>
<thead>
<tr>
<th>Currency</th>
<th>Closing Rate</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBP</td>
<td>0.929</td>
<td>0.30%</td>
</tr>
<tr>
<td>EUR</td>
<td>0.929</td>
<td>0.30%</td>
</tr>
<tr>
<td>USD</td>
<td>1.2970</td>
<td>1.02%</td>
</tr>
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US Dollars (USD) per British Pound (GBP)

Euros (EUR) per British Pound (GBP)
GBP/USD offered little through trade on Bank holiday Monday edging marginally higher with cable creeping back through a mid-market rate of 1.29 and touching intraday highs at 1.2943. Macroeconomic data was light overnight with U.S. Dollar remaining weak post last weekend’s Jackson Hole Symposium, which offered little in terms of future insight. The main movements were seen this morning as it was confirmed by Japanese Prime Minister Shinzo Abe that North Korea fired a missile which flew over the region of Japan. This caused immediate moves back into traditional safe haven currencies such as the Swiss Franc and Japanese Yen. Cable continued to edge higher, this morning, pushing above an interbank level of 1.2950 before an unexpected decline in UK house prices, as reported by the Nationwide building society, curtailed its gains. House prices in the month of August fell by 0.1%, 0.3% down from the previous month while annualized figures came in at 2.1% vs. 2.5% expected.

I anticipate a range in the GBP/USD rate of 1.2925 – 1.3025

Euro:

GBP/EUR also saw light trading through Monday’s bank holiday, finding resistance around the 1.08 mid-market levels. This morning’s unexpected decline in Nationwide UK House prices, combined with an improved reading of German Gfk consumer confidence saw this technical barrier breached and Sterling Euro continues to trade lower. With attentions squarely on ongoing Brexit negotiations, the Pound is open to further depreciations should the narrative lean harder on a heavy Brexit exit agreement. Failure to address key issues surrounding Europeans already settled in the UK has frustrated Brussels and thrown into question whether a trade deal can be negotiated in the near term. As long as these uncertainties cast a spectre over the GBP wider downward corrections remain on the table.

EUR/USD has surged through the 1.20 level, hitting a mid-market high of 1.2067 in this morning’s trade. Broader soft US dollar sentiment combined with bullish Euro buyers leads further support for the Euro. The flip side is the rising value of the single currency might soon start to dampen Eurozone Economic performance but the fact that ECB Governor Draghi failed to talk down the currency on Friday, at the Jackson Hole symposium, indicates the central bank does not see the currency appreciation as a concern at this time.

I anticipate a range in the GBP/EUR rate of 1.0700 – 1.0800
Oil Market: Brent $51.34/bbl, WTI $46.16/bbl

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<table>
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<tbody>
<tr>
<td>Brent ICE (USD/b)</td>
<td>51.34</td>
<td>↓</td>
</tr>
<tr>
<td>Gasoil ICE (USD/t)</td>
<td>482.00</td>
<td>↑</td>
</tr>
<tr>
<td>Fuel 1% Fob cg (USD/t)</td>
<td>296.74</td>
<td>↓</td>
</tr>
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Close to close at $51.89/bbl for Brent ICE (This morning at $51.85/bbl)

Brent prices are relatively stable around $52/b and WTI prices are down, below $47/b for the 1st-nearby. By contrast prices of gasoline are sharply up. Indeed, Harvey seems regaining strength and may hit the coast again near Louisiana this time, which may force a prolonged shutdown of refineries in the region.

**Main events:**
First estimates of damages triggered by the hurricane Harvey are just being produced (there are talks of $100bn, which would be comparable to the impact of Hurricane Katrina in 2005) and they may be quickly obsolete, as Harvey seems getting stronger again and may hit the Texas-Louisiana border tomorrow. Floods inundating the nation’s 4th largest countries are also expected to worsen in the coming hours.

Gasoline prices surged higher (see graph on page 4), as more than a million barrels of fuel-making capacity was knocked offline and refineries shut down (10 of the Texas’ 25 refineries). Harvey is now heading towards eastern Texas, where is located Port Arthur, the US largest refinery. Ports along the coast are closed as well.
Nevertheless, the impact on prices looks relatively limited regarding the extent of havoc near Houston. Gasoline inventories are often full in other parts of the country and no shortage is feared at the moment in the Northern and Eastern parts of the country.

**Outlook:**
The impact of the EIA inventory report that will be released tomorrow should be more muted than usually, as markets should focus on potential new damages caused by the hurricane.

Brent prices may remain supported by disruptions of production in Libya that just came back above 1 Mb/d in July. Nothing new on the OPEC side.

**European Gas Market NBP Price: 1.5484 pence/kWh**

<table>
<thead>
<tr>
<th></th>
<th>Day Ahead (p/therm)</th>
<th>September 2017 (p/therm)</th>
<th>Winter 2017 (p/therm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NBP Gas Prices</strong></td>
<td>45.38</td>
<td>46.25</td>
<td>49.70</td>
</tr>
</tbody>
</table>

Close to close at 16.30 EUR/MWh for TTF CAL 18 (This morning at 16.30 EUR/MWh)

A UK bank holiday limited trading activity on European gas markets on Monday. Nevertheless, hot weather and strong coal prices pushed TTF day-ahead prices higher. API 2 Cal 2018 prices reached $79.14/t at the close, 50 cents higher d-o-d on the back of a tight supply/demand balance in the Pacific Basin due to rising import requirements in India and various supply issues. A further strengthening of the euro against the dollar has also played into the increase in European coal prices.

As a reminder, NBP ICE September 2017 prices lost 0.36 p/therm (-0.8%), to 44.45 p/therm at Friday’s close. TTF ICE September 2017 prices were unchanged at the close yesterday, to
€16.30/MWh. On the far curve, TTF Cal 2018 prices were assessed 5 euro cents higher at the close yesterday, to €16.299/MWh.

Outlook:
An increase in UKCS production compared to Friday with the return of the Britannia field dragged the UK system into oversupply this morning and could weigh on NBP prompt contracts today. Nevertheless, Norwegian gas supply is still constrained by three unplanned outages this morning and will be impacted by heavy planned maintenance work from this weekend. Prospects of an increase in residential demand from tomorrow with the return of below-average temperatures could be supportive as well. Coal API 2 Cal 2018 prices could test the $80/t level in the short term, which remains a supportive factor for the gas curve. A strong euro against the pound could be a mitigating factor for euro-traded contracts while it could support NBP prices on the curve. All in all, we favor a stable to bullish outlook for European gas prices today.

UK Electricity Market Average Buy Price: £43.02/MW

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<tbody>
<tr>
<td>Day Ahead (p/kWh)</td>
<td>4.725</td>
<td>↑</td>
</tr>
<tr>
<td>September 2017 (p/kWh)</td>
<td>4.945</td>
<td>↓</td>
</tr>
<tr>
<td>Q4 2017 (p/kWh)</td>
<td>4.990</td>
<td>↓</td>
</tr>
<tr>
<td>Winter 2017 (p/kWh)</td>
<td>5.035</td>
<td>↑</td>
</tr>
<tr>
<td>Summer 2018 (p/kWh)</td>
<td>4.180</td>
<td>↑</td>
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Close to close at £47.25 /MWh CAL 18 (This morning at £47.25/MWh)

A weaker Pound and an expected drop in renewable generation supported power contracts yesterday, although the bank holiday meant it was a quiet day of trading. Stronger coal helped prices further out move higher, while Brent was generally stable.
Wind generation is low today and any improvement later in the week will be minimal, providing support to power prices at the front of the curve. The gains are not as significant as those displayed by gas as cooler temperatures will reduce demand. Elsewhere, concerns regarding nuclear availability in France have eased, limiting upward movement further along the curve.

**Coal Buy Price: £97.75/tonne**

**Carbon Buy Price: €6.02/tonne**
News

Will Ofgem’s review provide us with a future-proofed energy system?

21st August 2017

On 4th August, Ofgem announced its strategy for regulating the future UK energy system. For many, it’s been a long time coming, and states clearly that existing market arrangements simply aren’t fit for purpose, having been developed for the linear ‘generator to consumer’ model of times past.

In its quest to decarbonise, the UK increasingly operates a decentralised, multi-faceted, intermittent power base; one with a far greater need for all “stakeholders” in that system to work together to balance supply and demand – including consumers. Demand management is a familiar term now, with more businesses than ever choosing to participate in demand side response (DSR) schemes in order to earn revenues and mitigate against rising energy costs.

Over the next decade, participation from domestic and small commercial electricity users is also anticipated. The roll-out of smart meters means that more electricity tariffs will include incentives to avoid energy use at certain times of day or to switch off non-essential devices when requested by the National Grid or your local network operator.

This momentum behind a more agile approach is great news and much-needed if we are to decarbonise the sector affordably. But as Ofgem states, if the current market arrangements aren’t adapted they could inhibit further progress, either because costs will become unnecessarily high or because they don’t lend themselves to the introduction of new technologies and business models.

System and network costs currently make up approximately 20% of the electricity bill, so any change to the way in which they are calculated and distributed makes a tangible difference to high electricity users. Ofgem’s plans focus on an overhaul of electricity transmission and distribution charges, unpicking existing charging structures to ensure they take a fairer view for consumers. Much of this centres on the way in which ‘residuals charges’ are allocated. Broadly speaking, network tariffs are constructed using regional cost-based allocation models, with residual elements added to ensure that overall network costs are covered. The review intends to make those charges more cost reflective, ensuring that they are calculated in line with the interests of consumers. And with a paper on the topic expected at the end of this year, energy buyers would be wise to keep a watching brief.

Beyond this, the announcement talks of levelling the playing field for new technologies and business models, encouraging innovation in our developing network. It also calls for greater cohesion between the transmission system – operated by National Grid – and the localised distribution networks, recognising the fact that more embedded generation than ever is connected to distribution networks and “invisible” to National Grid.

The regulator is also reviewing incentives for generators and consumers to change generation and usage patterns, taking account of local network congestion periods, as well as the potentially thorny issue of determining the correct allocation of investment risk for future
network upgrades between users, owners and consumers. In parallel to this, the National Grid is reviewing the vast array of frequency support services that it has developed in an attempt to both simplify and expand those services.

It’s all fairly technical stuff, but with the potential to make a significant difference to business energy costs and future consumption strategies. It’s exciting for our industry too – if the UK flexible grid is developed successfully then it will have the potential to reduce energy costs. But more than that, it would enable the UK to become a world leader in electricity network development.

For the full strategy paper see: https://www.ofgem.gov.uk/publications-and-updates/our-strategy-regulating-future-energy-system

Terminology
- All oil prices: in US dollar
- Oil product: Brent crude or West Texas Intermediary (WTI)
- Mb/d – Million Barrels per day.
- Freight rates: US dollar per tonne.
- Natural gas prices quoted as pence per therm.
- Power prices quoted as Pounds Sterling per MWh.
- CO2 market: EURO

Information & Data Sources
1. Total Gas & Power
2. GdF Suez
3. Haven Power
4. Coal spot.com
5. Forex
6. ICIS

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