Q4 2017 Supplier Obligation Levy Rate & 15 Month Forecast

Webinar 5 July 2017

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Questions

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Understanding the Supplier Obligation

Supplier Obligation is a compulsory levy on electricity suppliers to cover CFD payments to generators. It is paid by electricity suppliers in accordance with their market share of eligible gross demand. Below is a simplified formula for illustration purposes.

The cost per MWh is given by:

$$\text{supplier obligation levy} = \frac{\sum_{i} \text{generation}_i \times (\text{strike price}_i - \text{market reference price}_i)}{\text{total eligible demand}}$$

where $\sum_{i}$ is the sum over all CFD generators $i$.
Understanding the Supplier Obligation

Supplier Obligation is split across three payment mechanisms:

Interim Levy Rate (ILR)

- Daily rate in £/MWh: specified a quarter in advance, but paid on a daily basis

Total Reserve Amount (TRA)

- Reserve amount to cover uncertainty in CFD; set at a level to ensure a 95% probability that LCCC will, during a given period, be able to meet all payments it might have to make under the CFDs
- The CFD counterparty notifies the amount of each electricity supplier’s reserve payment for a quarterly obligation period before the 8th working day of the quarterly obligation period which immediately precedes that period; it is paid within the 5\textsuperscript{th} business day following the invoice i.e. within the 12\textsuperscript{th} business day of the quarterly obligation period to which it relates

Reconciliation

- Retrospective reconciliation based on some metered data and actual price information
CFD Generation Payments by Fuel Type

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Q4 2017</th>
<th>Q1 2018</th>
<th>Q2 2018</th>
<th>Q3 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar PV</td>
<td>118.0</td>
<td>141.8</td>
<td>124.1</td>
<td>140.1</td>
</tr>
<tr>
<td>Offshore Wind</td>
<td>0.1</td>
<td>0.1</td>
<td>0.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Onshore Wind</td>
<td>77.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biomass Conversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Conversion Technologies</td>
<td></td>
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</tbody>
</table>

CFD Generation Payments (£m)
Q4 2017 Supplier Obligation Levy Rate

Supplier Obligation for the period from 01 October 2017 to 31 December 2017, to cover payments to CFD generators accrued in the period:

Interim Levy Rate (ILR)

- Set at £2.517 / MWh for the period
- Up from £1.553 / MWh in Q3 2017

Total Reserve Amount (TRA)

- Set at £0.00 for the period
- Down from £34,316,588.50 in Q3 2017
Forecast Assumptions: Generation

Any significant change to our forecast may trigger an in-period adjustment to the TRA and ILR to meet payments.

For illustration, our primary forecasting assumptions include:

- **Solar**: Two units are expected to generate in Q4 2017.

- **Biomass Conversion**: Generation has commenced from one unit with effect 21 December 2016; a 10 week outage is expected 27 August to 6 November 2017. Another unit will come online during Q4 2017.

- **Offshore Wind**: Generation is expected from 5 facilities during the period; two of these are expected to come online during Q4 2017.
Forecast Assumptions: Other

Any significant change to our forecast may trigger an in-period adjustment to the TRA and ILR to meet payments.

- **Market price:** The forecast BMRP for winter 2017 used for the determination of the Q4 2017 ILR and TRA carries uncertainty when compared to the actual BMRP. This is because at the point of determination less than half of the winter 2017 baseload prices had already been known.

- **Electricity demand:** The calculation of eligible demand assumes that 11.8 TWh of ‘Energy Intensive Industries’ demand will be exempt as per the BEIS guidance at the time LCCC produced the forecast.
15 Month Forecast ILR with Low and High Case
Further Assumptions Low and High Case Sensitivities

Base case:
- Commissioning dates as per expected date published in CFD register

Low case:
- Assumes generators commission 6 months after the Base case start date assumption
- Simulates an increase in market prices of 15%

High case:
- Assumes generators commission 2 months prior to the Base case start date assumption
- Simulates a drop in market prices of 13%
Why does the TRA vary so much between quarters?

The TRA is as much about working capital/Cashflow as about uncertainty

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Status</th>
<th>ILR £/MWh</th>
<th>TRA £m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul-Sep 17</td>
<td>Determination</td>
<td>1.553</td>
<td>34.32</td>
</tr>
<tr>
<td>Oct-Dec 17</td>
<td>Determination</td>
<td>2.517</td>
<td>0.00</td>
</tr>
<tr>
<td>Jan-Mar 18</td>
<td>Forecast / Base</td>
<td>3.302</td>
<td>38.46</td>
</tr>
<tr>
<td>Apr-Jun 18</td>
<td>Forecast / Base</td>
<td>4.170</td>
<td>26.58</td>
</tr>
<tr>
<td>Jul-Sep 18</td>
<td>Forecast / Base</td>
<td>4.592</td>
<td>31.33</td>
</tr>
</tbody>
</table>

- According to REMIT* a large biomass generator plans an outage until 6 November 2017
- Costs for Oct-Dec 17 are therefore back-loaded
- This means we need to hold less reserve money to pay generators on time in this quarter compared with adjacent quarters

*Regulation of Energy Market Integrity and Transparency
Illustration of TRA Calculation
Q4 2017 TRA: Daily cash flow on paid basis

Back loading of generation results in excess ILR income over CFD costs paid: Low TRA
LCCC Transparency Tool - https://sofm.lowcarboncontracts.uk/

Published on: 23 Jun 2017

- **Interim Levy Rate**: £2.517 / MWh
- **Total Reserve Amount**: £0.00m
- **Expected payments to generators**: £195.87m

**October - December 2017**

- **Expected eligible supply**: 77,828,661 MWh
- **Assumed CFD capacity**: 2,033 MW
- **Forecast CFD generation**: 2,223,802 MWh
- **Forecast Average IMRP**: £44.80 / MWh
- **Forecast Average BMRP**: £45.96 / MWh

**October - December 2017**

- **Online by end of December 2017**
- **October - December 2017**
- **October - December 2017**
- **October - December 2017**

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