First delivery year of the Capacity Market

The electricity margin has increased compared to last year

Both normalised and ACS demand can be met in all weeks across the winter under all interconnector scenarios
Your feedback has improved the Winter Outlook report

- Key messages and terms
- Operational toolbox to help you understand the different electricity notifications
- Spotlights
Electricity key messages

- First main delivery year of the Capacity Market
- The calculation of the percentage electricity margin has changed to be aligned with the Capacity Market approach
- Volume of generation available to the market has increased
- Expect imports from Continental Europe during peak times
Percentage margin historically calculated based on transmission demand

\[
\% \text{ margin} = \frac{\text{Tx generation} - \text{Tx demand}}{\text{Tx demand}}
\]

- De-rated generation
- Distribution connected
- Transmission connected

Demand met by distribution connected generation

Transmission system demand

Percentage margin depends on the generation split between the transmission and distribution systems. This makes it difficult to compare years on a consistent basis.
Move to calculating percentage margin based on underlying demand, in line with CM.

The percentage margin does not vary with the split between transmission and distribution connected as all generation is treated consistently in the calculation.

\[
\% \text{ margin} = \frac{\text{total generation} - \text{underlying demand}}{\text{underlying demand}}
\]

<table>
<thead>
<tr>
<th>Underlying demand (GW)</th>
<th>Tx connected generation (GW)</th>
<th>Dx connected generation (GW)</th>
<th>Tx demand (GW)</th>
<th>Margin (GW)</th>
<th>Margin %</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>56</td>
<td>10</td>
<td>50</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>60</td>
<td>66</td>
<td>0</td>
<td>60</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>60</td>
<td>50</td>
<td>16</td>
<td>44</td>
<td>6</td>
<td>10%</td>
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</table>
Winter view

The margin and LOLE figures have improved since we published our Winter review and consultation in June 2017.

<table>
<thead>
<tr>
<th>De-rated capacity margin %</th>
<th>6.2 GW (10.3%)</th>
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</thead>
<tbody>
<tr>
<td>Loss of load expectation</td>
<td>0.01 hours/year</td>
</tr>
<tr>
<td>Generation</td>
<td>101.2 GW total</td>
</tr>
<tr>
<td></td>
<td>66.1 GW de-rated</td>
</tr>
<tr>
<td>Demand*</td>
<td>62.3 GW</td>
</tr>
<tr>
<td>Interconnectors</td>
<td>2.4 GW net imports</td>
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</tbody>
</table>

* ACS peak underlying system demand
Operational view

Based on demand data from 30 September and OC2 data on 5 October 2017
Operational and market notifications

**Electricity margin notice (EMN)** – an operational notice issue by National Grid at times of system stress.

**Capacity market notice (CMN)** – an automated notice generated four hours ahead of real time, triggered by a forecast margin of 500 MW or less.

- Forecast system margin is higher than last year
- Margin is calculated at ‘average’ weather and actual weather may be colder or warmer
- Notifications could still occur this winter, particularly if short notice events occur such as within day plant losses
  - Coal is the marginal plant and may be cold
Beyond the Winter Outlook report
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