EU Renewables (%)

2005 Energy Share
2020 Energy Target
UK electricity – 2015 supply crunch:

1. Capacity margin forecasts

Source: Ofgem, Electricity Capacity Assessment, 5 October 2012
Chart 3: Time weighted baseload electricity prices (£/MWh, real 2009 prices)

Source: Redpoint Energy, 2010 (from HMT consultation on Carbon Price Floor)
Managing wind intermittency – implications for reserve (backup generation)

STORR (MW)


‘Gone Green’ scenario overview – potential opportunities for reserve providers

Gas Forward Prices: UK, US, Russia (oil index)

p/therm

- UK
- Russian oil index
- US

Jul-13  Jan-14  Jul-14  Jan-15
Current electricity prices for energy intensive industries

*BIS, Electricity & climate policies impacting energy intensive industries, July 2012*

http://www.bis.gov.uk/assets/biscore/business-sectors/docs/i/12-527-international-policies-impacting-energy-intensive-industries.pdf

**Key:**
- **ET** = Energy Taxes
- **RE** = Renewable Energy mandates
- **EE** = Energy Efficiency measures
- **GHG** = Green House Gas trading (carbon)
- **X** = net impact

*Source: BIS, Electricity & climate policies impacting energy intensive industries, July 2012*

*Graph: Current electricity prices for energy intensive industries*
Impact of climate policies on industrial electricity prices

Figure 1-2a: Indicative incremental impacts in 2011, 2015 and 2020 on electricity price (£/MWh, 2010 prices) of energy and climate change policies

Key:
ET = Energy Taxes
RE = Renewable Energy mandates
EE = Energy Efficiency measures
GHG = Green House Gas trading (carbon)
X = net impact

JN SAS, Stirling, 24th November 2013
‘Energy prices and bills – impacts of meeting carbon budgets’
Committee for Climate Change, 13th December 2012

Figure 4.4: Outlook for industrial price for electricity supplied from the grid (2011 and projected in 2020)

<table>
<thead>
<tr>
<th>Year</th>
<th>Price 2011 (p/kWh)</th>
<th>Price 2020 (p/kWh)</th>
<th>Percentage Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>7.2</td>
<td>8.7</td>
<td>+21%</td>
</tr>
<tr>
<td>2020</td>
<td>11.2</td>
<td>15.2</td>
<td>+58%</td>
</tr>
</tbody>
</table>

Source: CCC calculations.
Notes: Numbers may not sum due to rounding.
### DECC Levy Control Framework & Draft CfD Strike Prices, 27 June 2013

<table>
<thead>
<tr>
<th>Technology</th>
<th>2014/15</th>
<th>2018/19</th>
<th>2020 deployment</th>
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<tbody>
<tr>
<td></td>
<td>£/MWh</td>
<td>£/MWh</td>
<td>GW</td>
</tr>
<tr>
<td>Biomass conversion</td>
<td>105</td>
<td>105</td>
<td>1.2-4</td>
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<tr>
<td>Offshore wind</td>
<td>155</td>
<td>135</td>
<td>8-16</td>
</tr>
<tr>
<td>Onshore wind</td>
<td>100</td>
<td>95</td>
<td>9-12</td>
</tr>
</tbody>
</table>


JN SAS, Stirling, 24th November 2013
Draft Strike Prices v Wholesale Electricity Price (£/MWh)

- 2013 Wholesale Price
- Offshore Wind 2014/15
- Offshore Wind 2018/19
- Offshore Wind 2014/15
- Offshore Wind 2018/19

JN SAS, Stirling, 24th November 2013