CONTENT

• Trends in coal

• Changing investments

• The importance of HELE uptake

Disclaimer: Views, findings and publications of the IEA Clean Coal Centre do not necessarily represent the views or policies of the IEA Secretariat or its individual member countries.
TRENDS IN COAL USE
REduced ProJEctIons of COaL conSuMPtIOn

Quintillion Joules

2013 projection

2017 projection

FT (2017) – The future of coal in seven charts
Coal consumption has reached a plateau – with falling demand in developed countries and China being offset by increasing demand in India and South East Asia.
COAL FINANCING ENVIRONMENT AND TRENDS
## THE BIG FINANCING PICTURE

<table>
<thead>
<tr>
<th>USD billions</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multilateral commitments (1)</td>
<td>0.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFI commitments (2)</td>
<td>9</td>
<td>5</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Financing from large banks (3)</td>
<td>35</td>
<td>50</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>Other financing (including balance sheet financing) (4)</td>
<td>108</td>
<td>91</td>
<td>98</td>
<td>82</td>
</tr>
<tr>
<td><strong>Total (5)</strong></td>
<td>152</td>
<td>146</td>
<td>149</td>
<td>139</td>
</tr>
</tbody>
</table>

### Power Plants

- **Large bank financing**
  - 2014: 20 billion
  - 2015: 20 billion
  - 2016: 20 billion
  - 2017: 20 billion

- **Other financing**
  - 2014: 10 billion
  - 2015: 10 billion
  - 2016: 10 billion
  - 2017: 10 billion

### Mining

- **Large bank financing**
  - 2014: 10 billion
  - 2015: 10 billion
  - 2016: 10 billion
  - 2017: 10 billion

- **Other financing**
  - 2014: 0 billion
  - 2015: 0 billion
  - 2016: 0 billion
  - 2017: 0 billion
ASIAN BANKS: CONTINUED TO LEND AND INCREASE THEIR EXPOSURE TO COAL

- Large Asian banks (notably Chinese ones) provide significantly more funding to coal projects than western banks.

- China is seen as a lender willing to fund international coal projects.

- Are these commercial or PFI loans?

Nevertheless, the ICBC & CCB – two of the largest banks in China, rejected the opportunity to finance the Carmichael coal mine in Australia.

Non-Chinese Asian banks are reconsidering their policies towards coal projects.
PUBLIC FINANCIAL INSTITUTIONS IN ASIA ARE CONTINUING TO LEND TO COAL PROJECTS

<table>
<thead>
<tr>
<th>Role of PFIs</th>
<th>Recipients of finance 2014 -17</th>
</tr>
</thead>
<tbody>
<tr>
<td>• State-owned banks and export credit agencies</td>
<td>Indonesia</td>
</tr>
<tr>
<td>• PFI contributions are growing due to the continuing uncertainty in commercial markets</td>
<td>$13.87 billion</td>
</tr>
<tr>
<td>• The vast majority of PFI support is provided by East Asian countries - China, Japan and South Korea.</td>
<td>Vietnam</td>
</tr>
<tr>
<td>• The providers and recipients of support are Asia</td>
<td>$7.08 billion</td>
</tr>
<tr>
<td></td>
<td>Bangladesh</td>
</tr>
<tr>
<td></td>
<td>$5.85 billion</td>
</tr>
</tbody>
</table>
THE MULTILATERALS: FINANCING LOOKS UNLIKELY

No additional financing evident between 2015 – 17, however some institutions have shown an increased willingness to lend.

Will not lend

- WORLD BANK GROUP
- Asian Development Bank

May lend

- ADB
- AIIB
- ISDB
- IDB
- AFRICAN DEVELOPMENT BANK GROUP
- European Bank for Reconstruction and Development
- European Investment Bank
Multilateral financial institutions have been accused of indirectly lending to coal projects

- The World Bank has been accused of supporting coal projects through the IFC.
- The IFC provides equity investments and loans to utilities and financial firms in developing countries.
- We hope to capture this information under lending by banks.
OTHER FINANCING IS PERSISTENT AND SIGNIFICANT

Key findings

- Persistently large gap
- Possible to be too concerned or not concerned enough – there are various plausible explanations:
  - Balance sheet financing
  - Gov subsidies
  - Smaller banks
- However, this is a large known unknown!
FUNDING FOR HELE TECHNOLOGIES IS VITAL
GROWTH IN INDIA AND THE NEED FOR POWER

• By 2040
• Five-fold increase in economy
• Population rises to 1.7 billion
• Increasing urbanisation
• Energy use more than doubles
India - 25 Year Retirement Scenario, 2015 – 2040
CCS Emissions Trendline (85% Capture)

Note: Additional derate capacity not factored in
CONCLUSIONS
CONCLUSIONS

• There is a gap in the data on “other funding” for coal projects

• It is not possible to know whether available funding reflects the need for HELE deployment

• Funding for coal projects must be managed to ensure the uptake of cleaner coal options
THANK YOU FOR LISTENING

ANY QUESTIONS?

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