Hard Coal in Europe

Bonn – 25th June 2009

Dr.-Ing. Wolfgang Ritschel
Vice-President
Coal in Europe

Lignite production, hard coal production and imports in Mt in 2008

Data as per 2/2009

Bonn, 25th June 2009, Figure 2
Both imported and indigenous coal make a major contribution to our supply

EU Solid Fuel Supply 2008 (adjusted for calorific value)

- Lignite production: 148 Mt (30%)
- Hard coal imports: 217 Mt (44%)
- Hard coal production: 422 Mt (26%)

Source: EURACOAL
Coal remains a major indigenous resource in the EU

Indigenous Production of Fossil Fuels

Source: European Commission, Energy and Transport, Trends to 2030; 2007 update

Bonn, 25th June 2009, Figure 4
Projected EU energy imports dependency

Source: European Commission, EU Trends to 2030, update 2007

The use of coal reduces import dependency

Bonn, 25th June 2009, Figure 5
Power generation structure in selected EU 27 Member States

Gross power generation

<table>
<thead>
<tr>
<th>Country</th>
<th>TWh</th>
<th>Share of coal in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU 27</td>
<td>3.357.958</td>
<td>29</td>
</tr>
<tr>
<td>Poland</td>
<td>161.743</td>
<td>92</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>84.361</td>
<td>59</td>
</tr>
<tr>
<td>Greece</td>
<td>60.789</td>
<td>53</td>
</tr>
<tr>
<td>Germany</td>
<td>636.600</td>
<td>42</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>45.843</td>
<td>41</td>
</tr>
<tr>
<td>Romania</td>
<td>62.698</td>
<td>40</td>
</tr>
<tr>
<td>UK</td>
<td>398.327</td>
<td>38</td>
</tr>
<tr>
<td>Spain</td>
<td>303.007</td>
<td>22</td>
</tr>
<tr>
<td>Hungary</td>
<td>35.859</td>
<td>20</td>
</tr>
<tr>
<td>Italy</td>
<td>314.122</td>
<td>14</td>
</tr>
<tr>
<td>Belgium</td>
<td>85.535</td>
<td>8</td>
</tr>
<tr>
<td>France</td>
<td>574.473</td>
<td>4</td>
</tr>
</tbody>
</table>

As at 9/2008

EURACOAL
The Gas crisis – Power generation 5th to 11th January 2009 - Example Germany

Net load on a cold day

- Capacity
  - High 70 – 80 GW
  - Low - 50 GW
  - Solar 2 GW
  - Wind 23 GW
  - Natural Gas - 22 GW
  - Hard Coal - 28 GW
  - Lignite - 20 GW
  - Nuclear - 20 GW

Coal generation helped in the crisis, the renewables did not.

Bonn, 25th June 2009, Figure 7
Coal-fired power plants –
Continuous modernization

The right approach: continuous power plant modernization/renewal.

Bonn, 25th June 2009, Figure 8
Conclusions

- Both indigenous and imported coal will continue to be important for Europe’s electricity supply for decades.

- Access to coal resources remains a significant issue.

- Policy makers and authorities should make sure that new capture-ready coal-fired power plants are accepted and can be constructed throughout Europe. They are essential for a secure, competitive and sustainable energy supply.

- The EU has been working on a CCS demonstration network and on legal as well as financial issues concerning CCS demonstration projects.

- Industry, policy makers and administrations must also develop CCS infrastructure solutions.

Coal will remain a part of the solution to Europe’s energy supply