Figure 5: Global distribution of natural gas production

![Global distribution of natural gas production graph]


Figure 6: Distribution of proved natural gas reserves, 1987, 1997, 2007

![Distribution of proved natural gas reserves graph]


- Arctic and sub-sea hydrates

Unconventional deposits are clearly more costly to extract, but as energy prices rise and technology advances, more and more of these deposits are attracting the interest of governments and energy companies.

Coal

Coal production is dominated by the Asia Pacific region (Figure 7), with over two-thirds of the latter accounted for by China. China produced 41.1% of global coal in 2007. The next largest producing countries were the USA (18.7%), Australia (6.9%), India (5.8%) and the Russian Federation (4.7%).

The USA has the largest reserves of coal, enough to last 250 years at its present rate of consumption. Thus, it is not surprising that coal accounts for 50% of US electricity generation and 83% of power plant CO₂ emissions. However, China is by far the largest consumer of coal, and the gap between China and the rest of the world will steadily increase in the future. China is expected to need 3,242 million tons of coal a year by 2025. It is likely that China will build several hundred new coal-fired power stations to satisfy its demand for energy. This will have a huge impact on greenhouse gas emissions.

As with natural gas, there is a strong relationship between the production and consumption of coal by world region. Consumption is led by Asia Pacific (59.7%), North America (19.3%) and Europe and Eurasia (16.8%).

Coal is the most polluting source of energy. Figure 8 shows that in 2007, 5.4% of coal production was from China, 3.5% from the USA, 2.0% from India, 1.8% from South Africa, and 1.4% from South Korea. Coal is seeing increased use as a result of its relative abundance and low cost, but production is likely to remain in the hands of a small number of large producers. The HEP figures produced by the BP Statistical Review (Figure 9) are for consumption rather than production, but trade in HEP between countries is extremely limited. The ‘big four’ HEP nations of China, Brazil, Canada, and the USA account for 47% of the global total.

Figure 7: Coal production by region

![Coal production by region graph]


Figure 8: Proved reserves of coal

<table>
<thead>
<tr>
<th>Region</th>
<th>% Share of proved reserves</th>
<th>Reserves/production ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>29.6</td>
<td>224</td>
</tr>
<tr>
<td>South and Central America</td>
<td>1.9</td>
<td>188</td>
</tr>
<tr>
<td>Europe and Eurasia</td>
<td>32.1</td>
<td>224</td>
</tr>
<tr>
<td>Middle East and Africa</td>
<td>6.0</td>
<td>186</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>30.4</td>
<td>70</td>
</tr>
<tr>
<td>World</td>
<td>100.0</td>
<td>133</td>
</tr>
</tbody>
</table>

Hydroelectric power: the largest renewable

The HEP figures produced by the BP Statistical Review (Figure 9) are for consumption rather than production, but trade in HEP between countries is extremely limited. The ‘big four’ HEP nations of China, Brazil, Canada, and the USA account for 47% of the global total.