

A historic shift in the global energy market

The latest world energy statistics from BP show that for the first time in history the developing world consumed more energy than the industrialised world. The implications for the future are wide-ranging.

| by Alex Forbes

It had been clear for years that energy consumption in the “industrial” countries of the Organisation for Economic Co-operation and Development (OECD) would someday be overtaken by consumption in the non-OECD countries – the developing world. According to the latest BP Statistical Review

towards the emerging nations of the world, especially China.’

The shift in energy consumption towards the non-OECD world would not be a temporary phenomenon, he added. ‘On the contrary, we believe it will increase still further over time. It is

played a role in exacerbating the recession and they will play a role in what happens next.’

Post-Kyoto |

The shift in the pattern of global energy consumption is significant in several ways. Primary energy consumption in China rose 7.2%. This compares with growth of 1.4% worldwide. India’s primary energy consumption rose by 5.6%. Both China and India rely heavily on coal for power generation. Little wonder then that globally coal has been the fastest-growing mainstream fuel for the past six years, growing 3.1% last year.

Because coal leads to much higher emissions of carbon dioxide than do oil and natural gas, there are major implications for carbon dioxide. This makes it all the more crucial that whatever post-Kyoto agreement is

reached in the Copenhagen climate talks in December embraces the major energy consumers and carbon emitters in the developing world. China recently overtook the United States as the biggest emitter of CO₂.

The shift in global consumption patterns is significant also in what it portends for consumption trends over the medium to long term – a reminder that the dampening effects on demand that have been a result of the current economic crisis will not last forever. There is a ‘need for all of us’, said Hayward, ‘to look through the current downturn to the recovery, whenever it comes’ – particularly when it comes to investing. ‘The world’s population is expected to grow to 9 billion people by 2050 and urbanisation in the emerging countries of the world is continuing to gather

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of World Energy, published in June, the world passed that milestone in 2008. Launching the Review in London, BP’s chief executive, Tony Hayward, said: ‘This really is an historic moment. People have been predicting this fundamental shift for some time. It’s now a reality. The centre of gravity of the global energy markets has tilted sharply and irreversibly

a trend which will continue to affect prices, and create related uncertainties around the sustainability of economic growth, energy security and climate change.’

BP’s chief economist, Christof Rühl, said: ‘Non-OECD economies have had five years of the fastest growth ever. It is not a one-way street: energy prices



Tony Hayward. Photo: Lindsey Parnaby/ANP

pace. As both President Obama and the EU have made clear, we need ongoing investment in alternative energies and energy efficiency if we're to have any prospect of tackling climate change. But whatever achievements are made in alternative energy, fossil fuels are almost certain to remain the dominant source of energy well into the future.'

In 2008, the largest contributor to primary energy consumption was oil (34%), followed by coal (29%), natural gas (24%), hydroelectricity (6.4%) and nuclear energy (5.5%). Despite the hype about solar, wind and geothermal energies, these sources together provide so little of the world's energy – less than 2% – that BP does not include them in its tables of primary energy consumption (though it does provide a separate set of statistics at www.bp.com/statisticalreview). Non-hydro

renewables have been showing very rapid rates of growth, but from a very small base. In 2008, installed wind capacity was up 30% on 2007, while installed capacity for solar photovoltaic energy was up 69%. Hayward's view is that only now are they showing 'the beginnings of a material impact'.

Addressing the availability of energy reserves, a subject of much debate in recent years, Hayward – himself a geologist – reiterated that availability problems are 'not geological but political'. 'The data in the statistical review shows that contrary to what you might hear in some quarters, the world has ample proven fossil fuel reserves, enough to meet global demand for decades to come.'

Market-oriented |

The data in the review also show that 'supply responds best to demand in market-

oriented countries', Hayward said. 'Last year in the US, for example, there was the largest increase in the supply of natural gas ever recorded, as a result of the increased industry investment and technological innovation that has made it cost-effective to develop America's vast unconventional gas resources. Yet in other countries where normal market mechanisms are restrained we've seen a decline in supply despite higher prices.'

Focusing on the dramatic developments that occurred last year in energy prices, Hayward described 2008 as 'an unprecedented year, characterised above all by one word – "volatility". The gap between production and consumption has continued into 2009, and the resulting build-up in spare capacity is an indication of the potential downward volatility which we

could still see in the short to medium term.'

So what happens next? Both Hayward and Rühl agree that in an industry like energy, a capital-intensive business with long lead times, and demand for its products depending on economic conditions, 'cycles and price volatility are the norm, reflecting our imperfect knowledge over long investment cycles'. What is essential, if supplies to customers are to be maintained, is that markets are allowed to function in reacting to price movements, and that 'the world continues to invest through the downturn in readiness for the upturn – whenever it arrives'. Rühl: 'In 2008, markets served global security well on the way up, and on the way down. And they served it better the more they were allowed to develop without interference.' ■