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Energy and the economy

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Energy policy goals: inside the triangle of energy, environment and competitiveness
Energy is a fundamental human need and, as with food, ensuring access to a secure supply at prices which people can afford is a key responsibility of governments. This principle must be at the root of energy policy. Issues of environmental acceptability are important and climate change is one of the greatest challenges the world faces. But energy policy should never be seen simply as a branch of environmental policy. Governments instead need to support all solutions which meet that fundamental need for energy in an environmentally acceptable manner. The environmental focus of Gleneagles does not need to change, merely the starting point, which is now energy security, in the triangle of energy security, environment and competitiveness.

Security of supply:

- The world's oil and gas reserve base has been moving eastwards, as US and UK North Sea reserves deplete and Mexican oil fields mature. The majority of these reserves are now located in the centre of the Eurasian triangle, in Russia and the central Asian Republics, and due south in the Gulf. Projected production of gas in Russia and Central Asia will not meet projected demand in both Europe and East and South Asia, let alone for the US or other consumers.
- Of the G7 countries only Canada has access to secure, long-term indigenous fossil fuel reserves (oil, gas, coal). The US has access to long-term coal reserves and by 2020 the UK will have very few long-term fossil fuel reserves, except in the case of coal, to which access has, however, been almost completely cut. From being one of the three energy 'creditors in the G8 (Canada, Russia, UK) the UK is projected to be importing 75% of its primary energy in 2020 (UK DTI).
- Japan, Germany and Italy are highly dependent on imported energy, while France which has nuclear and hydro generated electricity is nevertheless highly dependent on imported energy for transport and other sectors.
- Russia, in the G8, has plentiful and easily accessible energy reserves.
- Looking globally, the energy economy has entered a period which is characterised by growing instability and this is likely to persist. This instability has led to higher oil and gas prices, although, so far this has not knocked on severely to coal prices. At the same time the large, rapidly developing countries (China, India, Brazil) have increased their fossil energy use and look set to increase it considerably further at this stage of their industrial development. For China and India, there a rapid move away from fossils is not possible in the medium term, although plans for improved energy efficiency could contribute to less rapidly increasing demand in China.
- In contrast to the 1974 and 1979 oil shocks, the current instability is widely dispersed and multi-causal. Oil prices at $60-70 per barrel (and linked gas prices) have risen almost as much, compared with the recent lows, as in 1974 but this has

happened over a longer period and they have not yet reached the 1979 peak in real terms ($85 per barrel).

- Energy analysts expect that oil prices could spike above $100 per barrel following significant supply disruption in the Gulf, or through a combination of events elsewhere. Central banks, however, are watching, and starting to take action to pre-empt oil-price induced inflation. This is of direct interest to trade unions as increased interest rates impact on employment.
- Close co-ordination is already taking place with the IEA but there is now a need for very sensitive energy diplomacy, a need that seems to becoming greater, year by year.
- Careful discussion of all of this will be required at the G8 meeting in Moscow.

Policy proposals:

- As the employment and living standards of workers are very dependent on an energy policy which can deliver secure, clean and affordable, we should favour a policy approach to achieve those three goals. Employment is directly affected by high and volatile prices, as can be seen in their current impact on energy intensive industries and on employment in least developed, fuel importing countries as well. High prices cut into living standards and push more working people into fuel poverty.
- Security of supply is best achieved multilaterally, with the G8 leading the way, aided by EU-Russia, US-Russia and Japan-Russia dialogue. Because the timescales are short – investment streams need to be established now, for example – it would be better to do this by agreement, rather than waiting for the Energy Charter Treaty to be signed by all participants. That process has become very complex and should wait until later. The good relationships between Russia and the Gulf States should also benefit this process. Market mechanisms are not irrelevant but, as the market does not ‘think strategically’ it cannot solve some fundamental problems.
- The focus of the agreements should be on investment in new capacity and in infrastructure, with fair rates of return, legal certainty and distributed benefits written in clearly. With specific reference to Ukraine, whose energy consumption is twice its indigenous production, help must be extended to secure its own coal and electricity industries (which face severe under-investment difficulties) as well as its relationship with its external suppliers.

Competitiveness

- Price increases and volatility undercut competitiveness. Energy intensive companies, especially and domestic consumers alike are suffering considerable hardship as a result. While the volatility originates partly in the global energy market, in some countries it has some home-grown causes, too, chiefly in the nature of some of the liberalisations of energy markets in the G8 countries. In some cases liberalisation broke up the energy industries into fragmented company pieces and established a regulatory structure which was too feeble to correct company behaviour. The regulatory systems also failed to embody an energy security duty powerful enough to mitigate against the priority price/competition duty, when needed. Similar problems have been seen in electricity supply in many liberalised markets from New Zealand to California, from Scandinavia to Italy, with power shut downs affecting wide geographical areas.
- In some systems it is difficult to see where the duty for maintaining energy security currently lies. The balance between duties or supply, environmental protection and

price competition has never been resolved satisfactorily, partly because of the complacency over energy supply which set in since the collapse of oil prices in 1986. The overall energy situation has become more complicated in the meantime.

- Liberalisation has also had the contrary effect of stopping the nuclear power station replacement programmes in several countries, styming the development of renewable energy and slowing down or even stopping the development of cleaner coal technologies which, through increased thermal efficiency, consume much less energy.
- The job loss in the energy industries over this period has been massive. One study by EPSU, the European Trade Union Confederation sector body, shows a loss of 300,000 jobs in electricity and gas in the EU. In the UK, Employment Trend statistics show that in 1988 employment in the mining, quarrying, supply of electricity, gas and water was 477,000, whereas in June 2005 it had fallen to 160, 000. The overwhelming bulk of these job losses were in mining, electricity and gas and the figures do not reflect the huge job losses in the equipment supplying and other energy-linked industries. The Trade Union Advisory Committee to the OECD (TUAC) has stressed that all economies should be seen as 'transition economies', moving towards an altered energy profile. This will impact employment and there needs to be a 'just transition' for workers. Many new jobs are and can be created in the alternative and renewable energy industries.

Policy proposals:

- The EU is considering what kind of regulatory structure is needed in the emerging, single energy market in the 25 member countries. As energy becomes increasingly subject to global markets (as gas now is just as oil did before it) there will need to be some kind of regulatory process created. Can the International Energy Agency fulfil this role? It already has a number of important, strategic roles, for analysis and emergency stocks.
- If energy markets become more open, it is logical for all the players to have access to all parts of the market both upstream and downstream. This raises difficult questions about company restructuring and cross-border mergers and take-overs. Unless the underlying security of supply issues are dealt with (seen as a real, national political priority for Governments, just as food supply is) this process will remain a unhappily blocked. Price competition is important for energy intensive industries especially, as well as all energy consumers. Regulatory models need to be re-examined in the light of the experiences gained since liberalisation started in the 1980s.

Environment

- Insufficient progress has been made to correct the human contribution to global warming. Action is now even more imperative. We should favour a mixed approach which begins with the recognition that all developed and developing countries are 'economies in transition' in an environment and energy sense. Vast resources, skills and technological knowledge already exist to achieve the goals we all aspire to. Getting these to work effectively is partly a question of clarifying a strategic approach and learning from our experience to date. Most important here is to align the three objectives in a more synergistic manner, getting market mechanisms working to achieve greater energy security and environmental improvement.

Policy proposals:

- Liberalised systems need to be re-tuned to achieve a more rapid introduction of lower carbon and zero carbon technologies, including clean coal, carbon capture and storage and new nuclear (at least for replacement of aging nuclear plant in those countries which wish to do so. A framework for providing incentives to clean technology is required. The pricing policy in liberalised systems also needs to encourage energy conservation and efficiency, especially of fossil fuels and to encourage the development of renewable energy and biofuels.
- There is no contradiction between a cleaner technology approach and the targets and mechanisms set by Kyoto. We have to admit that there are no entirely virtuous countries here (in the G8). Some countries, for particular reasons, have found it easier to achieve Kyoto targets or come close, through closure of fossil fuel dependent industries or a higher nuclear make-up in energy supply. As energy has not yet been decoupled from GDP, those countries with higher average growth rates have seen high than average CO2 increases, making reductions to 1990 levels more difficult. The most virtuous are those countries which have succeeded in increasing energy efficiency (Japan). Where gas has replaced coal in electricity generation and its use has been expanded in the wider economy, gas-generated CO2 has replaced coal-generated CO2 emissions, even though gas has only 60% of the carbon content of coal (UK).
- The lack of effort on clean coal technology in the G8 is in marked contrast with China, for example, where 80% of the cleanest, conventional coal-fired stations using supercritical boilers are operating. China is producing 2.1 billion tonnes of coal per year and will add a further 300 million tonnes over the next five years, an amount similar to the annual total primary energy consumption of Italy or the UK.
- We should applaud the efforts of the EU, the US and Japan to help China with its clean coal programme but would like to see the same being done elsewhere (as is now starting in Germany), which would in turn help the Chinese much more effectively by testing operating technologies. Moreover, the excellent work being done on the carbon sequestration (capture and storage) by some G8 and other countries will make a major contribution in the G8 as well as in China and India.