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## The Price of Energy Security

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The European Commission is putting the finishing touches to both the strategic energy review and a green paper on climate-change policy post-2012, following the expiration of the Kyoto Protocol.

Both papers will be presented on 10 January. They will outline the EU's long-awaited 'energy and climate-change vision' and propose a roadmap on how to ensure the competitiveness of European industry while at the same time combating climate change and ensuring security of supply. The European Council will on 8-9 March make this vision official EU policy. Many hope that this will be the beginning of a more secure and sustainable energy future.

As the International Energy Agency (IEA) in Paris points out, the EU's resources are dwindling at the same time that government intervention in the energy industry is on the rise. And that in precisely those countries that potentially could fill the gap, creating doubts on whether the necessary investment will happen. More than once, many supplier countries – also for oil – have proven unable to increase their energy production. And even if the necessary investments are made, the fact that supplies are tightly controlled by governments in the exporting countries raises the spectre of cartel-formation – see the recent confidential report by NATO's economic experts – or of energy being used as a political weapon. Some supplier countries are hostile towards the West. Others are politically unstable. Many reserves will take years to develop due to problems of access, investment and physical condition. A prolonged tight market could increase political tension and some sort of "resource nationalism" that we have witnessed recently, even within the EU.

Continuing to harbour the illusion that the EU can exert leverage on other countries to change their behaviour – sometimes against their interests – will not help. Convincing Russia to sign the Energy Charter Treaty is not a viable strategy. Offering Gazprom access to the EU gas market will not convince Russia as it has this already. Witness the recent deals of Gazprom with Eni and E.ON. A better way for the EU is to concentrate on what can realistically be done.

Policymakers have been slowly coming to understand that ensuring energy security and combating climate change will only be achieved at a premium. IEA analysis shows that production of conventional oil is likely to peak during the next decade. But technically recoverable resources such as deep-water, super-deep and Arctic oil, enhanced oil recovery, or non-conventional resources such as heavy oil bitumen, oil shales or gas or coal converted to liquids are available if long-term prices were to stabilise around today's levels – even if carbon dioxide costs are included. While there is great uncertainty about the actual amount of ultimately recoverable oil and gas reserves throughout the world, the IEA estimates that they add up to 5-10 trillion barrels of oil equivalent (boe). For

comparison, only 1.5 trillion boe of oil and gas have been produced to date. In fact, the proven reserves far exceed demand. The vital key is that appropriate investment be made. On the demand side, the oil price shocks in the 1970s and 1980s triggered a major demand effect in the form of considerable energy-efficiency improvements – although the effect stretched over a decade.

The EU and its member states have alternatives at their disposal to attain climate change and energy objectives. Coal can continue to be used in the electricity sector, for example, while, at the same time, deploying carbon capture and storage techniques. Europe could also invest in renewable energy sources, which in the long term hold one of the keys to sustainability. And those member states that wish to can invest in nuclear energy, as described by the IEA's World Energy Outlook for 2006 as the cheapest option both to guarantee energy supply security and to combat climate change. But with the possible exception of nuclear energy, which some claim is already cost-competitive with fossil energy, all these options are more expensive than current coal and natural gas-based technologies. And we could also invest in increased energy efficiency.

There is no way around higher energy prices if we want to reach the EU objectives, but this does not necessarily have to undermine the competitiveness of European industry. Other parts of the world, including the US, face a similar dilemma. Fast-growing developing countries will not be able to subsidise energy consumption forever. Energy shortages in China, India, and elsewhere bear witness to this, not to mention increasing local pollution that is becoming a problem, too. More important than the actual level of energy prices is the precondition that they rise gradually and not abruptly, as in the 1970s and 1980s. Moreover, most would agree that sharply falling energy prices would be a disaster both for energy security and for climate change.

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