The EU's energy supply: a complex future

Loyola de Palacio, Vice-President of the European Commission responsible for Relations with the European Parliament, Transport and Energy examines the Union's energy supply…

The European Union is like a golden giant with feet of clay. Great achievements of the Community, such as the Single Market and the euro, must not obscure weaknesses which threaten to undermine the European project. One such weakness is our provisions for energy supplies. We saw this clearly at the end of last year, when trucks and tractors blocked roads to protest against the uncontrolled rise in fuel prices: the sources of our energy supplies are beyond our borders and beyond our control.

Despite its wealth, Europe is poor in energy resources. Our oil will run out in ten years' time, our coal - although we have plenty of it - is not competitive, we have barely 2% of the world's natural gas reserves and renewable energy sources (hydroelectricity included) account for only 6% of our total energy bill. As a result, we have to buy more than half the energy we consume from countries outside the Community - at an exorbitant cost. In 1999, Europe's energy bill amounted to an astronomical 240,000m, 6% of all our imports and 1.2% of the Union's GDP.

It is a serious problem, which will get worse if we do not take action. Our homes, transport systems and industry are voracious consumers of energy. If we do nothing to stop it, energy demand will rise by 30% to 40% over the next three decades. At the same time, our production capacity will gradually decline. Consequently, we shall have to buy more and more oil, gas and coal from countries outside the Community. While today we depend on external sources for half our energy supplies, over the next 20 or 30 years this could increase to 70%.

This is why the Commission has launched a debate with the publication of its Green Paper on the security of energy supply. The document sets out ideas for consideration by public authorities, industry, other economic sectors, academics, families, in short all the citizens of Europe. The Green Paper does not just draw attention to the dangers of energy dependence, it also points to possible solutions. Clearly, there is no single magic formula. It is a complex problem which requires multiple solutions, with respect to both supply management (where and how we buy our energy products) and demand management (how we consume energy).

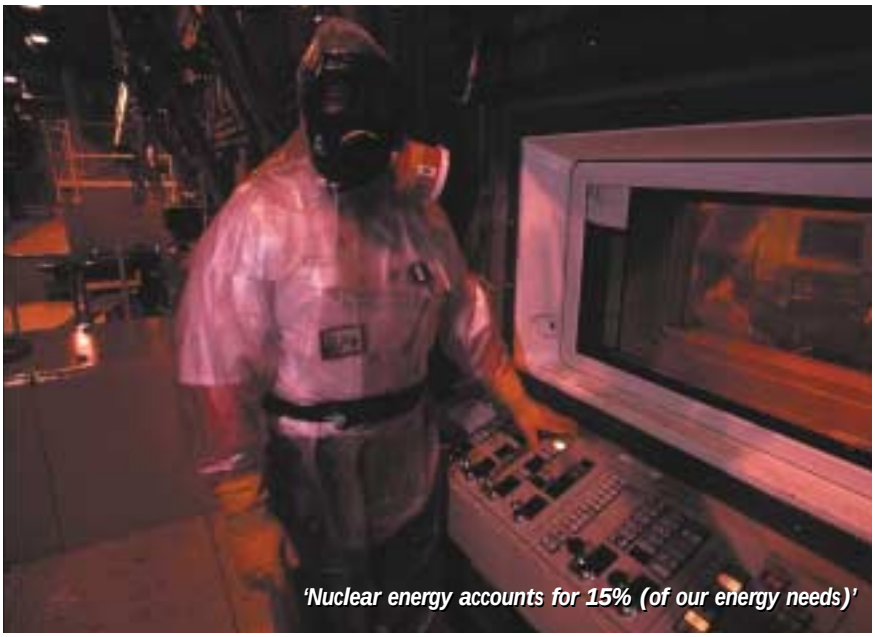
Demand management means combating waste. We need to find ways of saving energy without loss of competitiveness or quality of life. In the transport sector, which accounts for 30% of energy consumption, we must promote the most energy-efficient and environmentally friendly modes, such as rail, clean public transport and short-sea shipping. New energy-saving technologies can also be used in homes (which together with services account for 41% of energy consumption). Likewise, industry, which has made substantial efforts to cut down its energy consumption, could look for new ways to save energy. The less we consume, the less dependent we will be.

As for supply management, the key word is 'diversification', starting

'Demand management means combating waste'

Image: Central Audiovisual Library, European Commission

with the energy resources we use. Today, almost 80% of our energy comes from fossil fuels (oil 41%, coal 16% and natural gas 22%). Nuclear energy accounts for 15% and only 6% comes from renewable energy sources. Clearly there is an imbalance between these different resources.



'Nuclear energy accounts for 15% (of our energy needs)'

Image: Central Audiovisual Library, European Commission

The first answer to the problem is to strengthen considerably the renewable energy sector, and for many reasons: renewables are unlimited, environmentally friendly, we produce them ourselves and have plenty of them. The European Commission is already working towards doubling renewables' contribution to Europe's energy supply over the next decade. This is an ambitious target which will involve major technological development and substantial investment. A first necessary step will be to grant renewables the same concessions previously enjoyed by coal, oil and nuclear energy, which started off with substantial public financial support.

> *'If we were to suddenly replace our nuclear power stations with conventional power stations, another 300 million tonnes of CO_2 would be emitted into the atmosphere, the equivalent of 70 million cars.'*

We will also have to consider the future of nuclear power, which like all forms of energy has its advantages and disadvantages. The nuclear option has major advantages: we produce it ourselves, it stabilises prices, it is profitable and, above all, clean as far as carbon dioxide emissions are concerned. If we were to suddenly replace our nuclear power stations with conventional power stations, another 300 million tonnes of CO_2 would be emitted into the atmosphere, the equivalent of 70 million cars. In these circumstances we would not be able to come anywhere near meeting the CO_2 reduction objectives of the Kyoto protocol. So, if we want to do away with nuclear energy (which is as serious an option as keeping it) we must think about what we are going to replace it with.

Of course, nuclear power has its downside: radioactive waste. Although considerable progress has been made in its treatment and storage, the Commission is determined to carry on supporting research in this field because, whether we close nuclear power stations or not, the waste already exists and is generated not only by power stations but also in the military, industrial and medical sectors. On the other hand, we also want to support progress in the race to develop fusion technology, which, unlike the currently used forms of atomic energy, utilises an almost unlimited fuel resource.

Unfortunately, the bias towards fossil fuels will continue despite the commitment to support renewables, even if we keep our nuclear power stations. We must therefore ensure that the European economy is less vulnerable to fluctuations in oil prices. In the Green Paper we propose a package of complementary measures. On the one hand, establishment of an ongoing dialogue with our suppliers to negotiate stable prices (preferably in euros). On the other, consolidation of supply networks, and the construction of new oil and gas pipelines which will make it easier to import hydrocarbons from the Caspian Sea and the southern Mediterranean.

These measures are designed to secure the EU's future energy supplies, reducing the risk of external dependence and ensuring that the environment is preserved for future generations. A frank and open debate on the proposals will allow the EU to define a common strategy which should take into account our responsibilities towards all European citizens: those alive today and future generations. I hope that all interested parties will participate in the debate.

The Green Paper and a form for contributions can be found at http://europa.eu.int/comm/energy_transport/es/lpi_es.html

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