

Can Slovakia secure Energy Supply and Sustainable Development without Nuclear?

NEW GROWTH FOR NUCLEAR IN AN ENLARGED EUROPE

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Good morning, ladies and gentlemen. It is an honour to be here today on behalf of FORATOM, the Brussels-based trade association for the nuclear energy industry in Europe. This organisation aims to maintain a good working relationship between the industry and the European Institutions, principally the European Commission and European Parliament.

Let me from the outset underline how timely this international conference is. Since last Saturday, the European Union counts 25 member states instead of 15, 155 operational reactor units instead of 136 and 13 countries producing nuclear energy instead of 8. All the new member states having nuclear power plants depend heavily on them for the development of their economies. By 2007 – in the second phase of enlargement – 15 of the 28 member states will be 'nuclear'. So now and at each stage of enlargement, there will be a slight majority of EU countries using nuclear. Equally important is the fact that the new Member States are bringing to the European Union their enthusiasm, their skills and their sense of purpose.

I would like now to sketch the nuclear context in which this enlargement is taking place.

NEW GROWTH FOR NUCLEAR

Clear signs are emerging that nuclear energy in Europe could be facing a new era of growth. Nuclear has been on a holding pattern for quite some time, and there are various reasons for this – political opposition to nuclear in some countries and over-capacity in the power generation sector.

But the feeling that nuclear's fortunes in Europe could be changing for the better is simply inescapable. The case for expanding nuclear's use across the continent is becoming more and more compelling as time goes on.

In the EU as a whole, a third of all electricity is generated by nuclear power plants, with annual production reaching almost 1,000TWh. Nuclear is the Community's largest single energy source for electricity generation, ahead of coal at 29% and gas at 17%. As nuclear is almost completely carbon-free, it reduces the EU's CO₂ emissions by an estimated 500 million tonnes each year.

EUROPEAN ENERGY DEBATE

Europe's energy debate was initiated in late 2000, when the European Commission, immersed at the time in discussions related to the European energy market and its liberalisation, published a Green Paper on security of energy supply. The discussion document highlighted the precarious state of Europe's energy scene. The report

predicted that, if nothing changes, the EU's dependence on external energy sources would rise from 50% to 70% in the next 20-30 years. This, together with the problems related to climate change and compliance with the Kyoto Protocol, has set the scene for our current discussions.

The European Commission has proposed a large number of initiatives to tackle the issues related to the liberalisation of the markets, security of supply and climate change. As these last two have a direct influence on the actual and the future need for nuclear electricity production, several initiatives have nuclear energy as their main focus. The so-called 'nuclear package' addresses nuclear safety and waste management from a common European perspective. The rationale for this initiative is that both issues continue to be the weak links in the nuclear energy chain. Therefore, to win greater public acceptance for nuclear energy, which is undoubtedly needed in the future, the European Commission recommended establishing a European reference scheme. Discussions have taken place on those subjects for well over a year now. Some countries see the package as unnecessary interference by Brussels in national policy-making and established practices. Others, with an anti-nuclear attitude, view the package as supportive of the nuclear energy sector and therefore they are also concerned by it. A new version of the two Directives, published a couple of weeks ago, seems to take into account most of the concerns presented by the national authorities and the industry. We need now to take a sensible decision to reach the best balance between national and European roles and to achieve a scenario that will allow the industry to regain the momentum it once had.

A large part of Europe's power generating capacity is ageing and will need replacing in the coming years – and this at a time when electricity consumption is rising steadily each year.

So what options are there if policy-makers are to seriously address the challenges of reducing CO₂ emissions and maintaining security of energy supply?

Renewables are limited in their capacity to supply a large share of our needs and, as they are intermittent, cannot handle base-load electricity demand.

Natural gas has been chosen to face consumption growth, and it will maintain that role for as long as it substitutes coal to reduce CO₂ emissions. However, burning gas itself adds to the greenhouse effect and the threat of global warming and climate change. Addressing the CO₂ issue through carbon capture, allowing additionally for a more widespread use of coal, would increase the production costs for fossil fuels. There are also mounting pressures to curb the use of fossil fuels not only for environmental reasons but also because so much of Europe's energy has to be imported.

Fusion is worthy of future development, but its commercialisation is a very distant prospect.

New technologies, like hydrogen, may reaffirm the need for nuclear energy.

Whenever they are consulted, energy experts conclude that a range of options will have to be used to meet Europe's future energy challenges. This means, 'nuclear and renewables', not 'nuclear or renewables' and least of all 'anything but nuclear'.

COUNTRY-BY-COUNTRY SITUATION

A clear signal that nuclear is about to 'turn the corner' came with the decision by the Finnish utility, TVO, to build a new reactor unit, the country's fifth. Finland is already heavily dependent on energy imports, so a solution involving greater dependence on gas imported from Russia was not an attractive one. In addition, nuclear also represented the least-cost option.

Looking at some individual European countries, the prospects for nuclear are not as bleak as they might appear on the surface.

In Belgium, a 40-year limit has been imposed on the operation of the country's seven reactor units that meet around 60% of national electricity demand. However, plant closures will not actually take place if a threat to power supplies becomes apparent.

As in Belgium, operational limits have been imposed on Germany's nuclear park, but this involves a very gradual process that could be halted by political changes.

In Sweden, political leaders have so far been unsuccessful in implementing a phase-out policy. One of the country's 12 reactors has already been closed for purely political reasons, but the planned closure of a second one has not materialised because certain conditions have not been met – no 'clean' alternative capacity has been created and there has been no reduction in consumption.

In the UK, a new long-term energy policy has been put in place, favouring renewables and energy efficiency, but the government has not ruled out future investment in nuclear.

What all these situations have in common is that political decisions are being taken without any regard for the real costs for the economy. Meanwhile, these decisions do not affect the existing generation park and are not final. Time will show their impossibility, but we need to be aware that public acceptance and its political consequences remain central to our industry.

In Switzerland, voters last year rejected two anti-nuclear initiatives; they clearly heeded warnings that abandoning nuclear would mean higher electricity prices.

In France, there is a distinct possibility of an order for the new-design European Pressurised Water Reactor (EPR), the same type chosen by Finland's TVO.

What I said earlier about the importance of nuclear energy in the new member states could be repeated here.

However, Europe's nuclear sector is not just about power generation. Virtually all stages of the nuclear fuel cycle are undertaken – from uranium enrichment to fuel manufacture and spent fuel reprocessing. The industry players include some 'big names', like AREVA, BNFL and URENCO, which are active globally, as well as hundreds of companies of different sizes providing equipment and services to plant operators. The sector supports an estimated 400,000 jobs.

NEW PERSPECTIVES

FORATOM is convinced that in the decade beginning 2010 it will be necessary for Europe to increase its production of nuclear electricity in order to maintain power supplies that are secure, affordable and low in carbon content.

Nuclear electricity is an issue that too many politicians tend to dodge. The irony is that they are probably doing so for reasons that are to a large extent imaginary. As a matter of fact, there is evidence suggesting that decision-makers are prone to misapprehend public opposition to nuclear energy. In cases where public opinion was more or less evenly split between pro and anti-nuclear, opinion polls revealed that politicians tended to vastly overestimate the number of opponents in the public. This misleading perception of perceptions could be ascribed to the effectiveness of a vocal minority of opponents and to the impact of some elements of the media.

Let me conclude by expressing the hope that decision-makers everywhere in the world will become aware of the way in which they risk misreading public opinion. A more accurate assessment of public attitudes towards nuclear should act on them as a powerful incentive to promote a broad and dispassionate public debate on this important subject. Only through such a process can we develop an energy policy that is based on fact, rather than fiction.
