

Europe's Strategic Vision

by Ute Blohm-Hieber

In the quest to reduce CO₂ emissions, improve efficiency and achieve energy independence, European institutions give the green light to nuclear power.

At the heart of the European energy policy approved by the Spring Summit of the European Council, lie three criteria: competitiveness, security of supply and sustainability.

This 'magic triangle' offers for the first time a new standard against which all potential energy sources are measured making it possible to evaluate what contribution they can make in the transition to a low-carbon economy, i.e., one that guarantees economic growth while at the same time ensuring high energy efficiency and low CO₂ emissions.

Nuclear Energy in the New European Energy Policy

It is a fact that nuclear energy is already making a substantial contribution to an energy policy that is low-carbon, cost-effective and that provides assured supply. At present, nuclear supplies 30% of Europe's electricity, produces very low CO₂ emissions calculated over the entire fuel cycle (comparable to wind energy), and has a quasi 'indigenous' character, i.e., it can rely on a complete European nuclear fuel cycle. In addition, it contributes to the stabilization of electricity prices, owing to the favourable ratio of primary investment costs to fuel costs.

The Achilles' heel of nuclear power, however, continues to be waste disposal, particularly the disposal of high-level and long-lived radioactive waste. While there are technical solutions for final disposal (various Member States have proven it conclusively using underground laboratories in different host rocks), in most European States no political decision has been taken yet to implement these concepts. Unfortunately, this gives the false impression that there is no safe solution to the waste problem, which in turn reduces public acceptance of nuclear energy.

Acceptance plays a significant role in the European Commission's (EC) proposal for a new European energy policy. The choice whether to use nuclear power plants for electricity generation is left to each individual Member State. However, in its energy strategy paper the EC demands that any reduction in the nuclear energy share must be offset through the use of other low-carbon energy sources, so that the goal of a low-carbon energy future can be met.

Repeated Eurobarometer surveys show that when a Member State makes the effort to implement a waste concept, nuclear energy is met with higher public acceptance. Evidence shows that dialogue and the provision of information on the advantages of nuclear energy and on ways to minimize risk also contribute to public willingness to accept this energy form.

As a result, in its action plan the European Union (EU) has addressed both the waste issue and the need to make the nuclear energy debate more objective. Key elements of this strategy are:

- ✓ Support for research and development under the Seventh Research Framework Programme, including waste management; and
- ✓ Setting up of a nuclear energy forum that brings together high-ranking representatives of all the relevant social interest groups for dialogue on nuclear energy opportunities and risks.

Furthermore, the EU is of the opinion that a suitable modern European legal framework for the use of nuclear energy should be created to guarantee a high level of safety, as well as ensure the disposal of radioactive waste and the safe decommissioning of nuclear energy facilities at the end of their service lifetime. Such a legal framework would contribute directly to the safety needs of European citizens, as shown in Eurobarometer surveys.

EU's 20/20/20 Vision

The EU's 20/20/20 plan envisages the following goals:

- ✓ 20% cut in EU's Greenhouse Gas (GHGs) emissions (or 30% as part of an international agreement);
- ✓ 20% energy share from renewable sources; and
- ✓ 20% increase in energy efficiency.

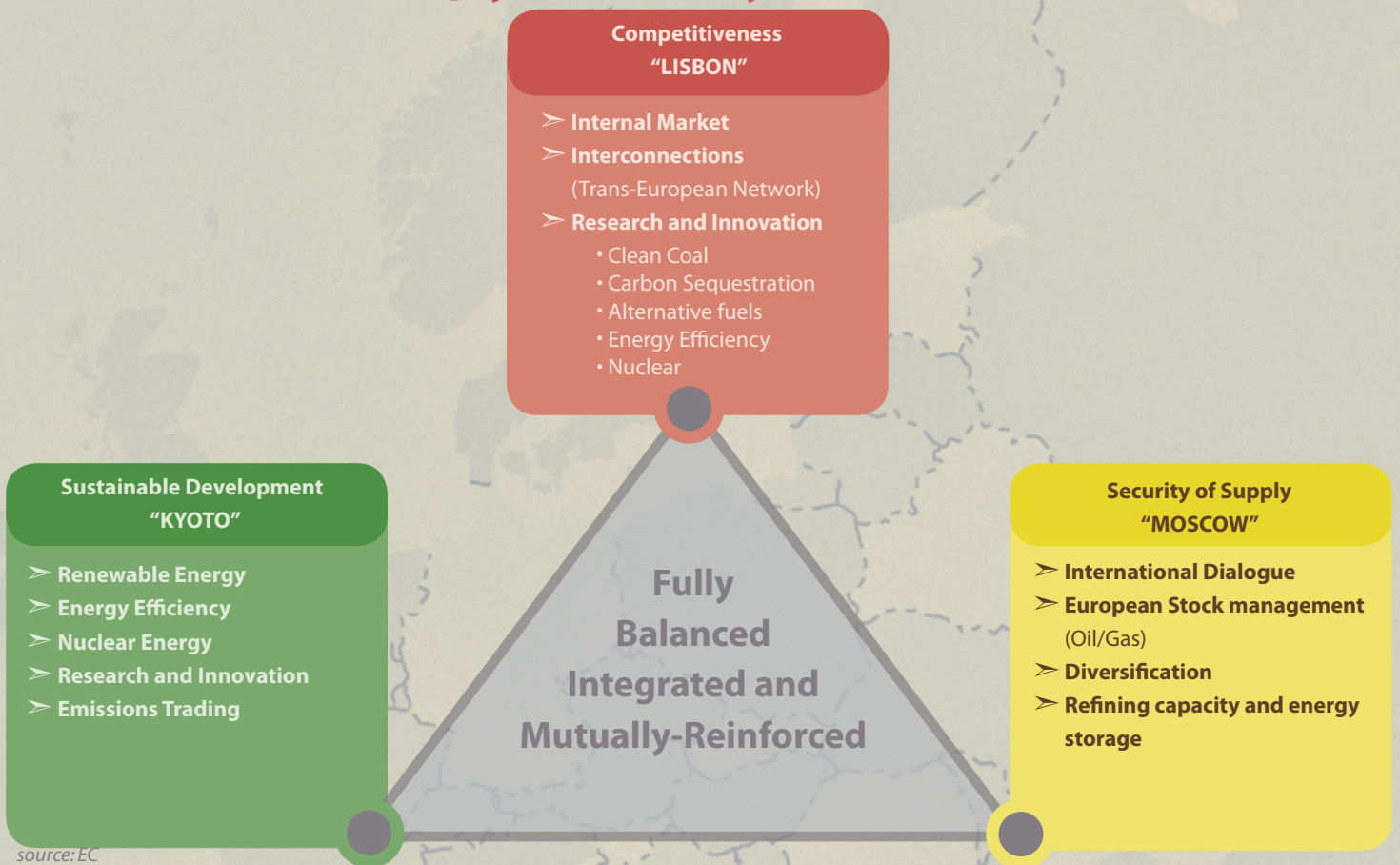
These targets are to be achieved by the year 2020. The ultimate goal of the plan is to limit the average global temperature rise to 2°C.

To make this idea a reality, the EC action plan provides for a high-ranking group of nuclear safety experts answering these questions.

The high importance that the EC attaches to nuclear safety was reflected in the negotiations for the 2004/2007 round of entries in the EU, for which the early shutdown of first generation Soviet-constructed or Chernobyl-type reactors was made a precondition. This stance does not contradict a European energy policy based on security of supply, sustainability and economic viability, as many in the Member States concerned seemed to think. Rather, it is a requirement so that nuclear energy can continue to play a central role in such an energy policy.

The EU's determination both to give absolute priority to a high level of safety culture in its Member

An Energy Policy for Europe



source: EC

Note: 'Lisbon' refers to the March 2000 Lisbon Agenda, which aims at making the EU the most competitive and dynamic knowledge-driven economy in the world by 2010. 'Kyoto' refers to the 1997 Kyoto Protocol that has the objective of reducing greenhouse gases that issue climate change. 'Moscow' refers to the EU-Russia Energy Dialogue established in 2000.

States and to promote the implementation of comparable standards in international bodies should also help to de-emotionalize the debate, which, unfortunately, in some Member States is still more ideological than objective.


The EC welcomes the fact that in 15 of the 27 European Member States electricity can be generated from nuclear energy — more nuclear power plants are under construction or in final planning stages in Finland, France, Bulgaria and Lithuania. In addition, in its strategy for energy technology it has also consistently included goal-oriented research that looks into fourth generation reactors, which use fewer resources and produce less waste. Further developments in the fields of nuclear fusion are also part of the EU's strategy.

This way, the EU can do more to stay at the forefront of worldwide research, which is where Europe has always been in terms of nuclear energy. In doing so, Europe is also ensuring for itself considerable long-term export and employment opportunities.

The call now is for a two-track approach. In the interest of sustainable, competitive and assured-supply energy, Europe should:

- ✓ Support technically-advanced, low-carbon technologies and consequently maintain the nuclear energy share to at least at current levels until 2020; and
- ✓ Promote the research of low-carbon technologies so as to realize the vision for 2050: a 60-80% in CO₂ reduction.

The industry sector also has an important contribution to make. In fact, the EU's approach calls for developments in the field of nuclear energy that would allow to make rapid progress in the development of fourth generation reactors.

If we want to preserve the welfare of European citizens, all energy options which fulfil the criteria of the 20/20/20 energy policy must be taken into consideration. Improving energy efficiency and using low-carbon technologies such as nuclear power and renewables would allow us reach the goals laid out in our energy policy. 

Ute Blohm-Hieber is Head of the EC's Nuclear Energy, Waste Management & Transport Unit. E-mail: Ute.Blohm-Hieber@ec.europa.eu

The Old and the New

European Attitudes Toward Science and Media

When it comes to opinions on scientific writing, a recent study notes an interesting split between older and newer European Union entrants.

In the 2007 Eurobarometer poll, researchers took a wide-ranging look at European behaviour as it relates to accessing and digesting science research and media. A significant disparity arose between new and old EU entrants: pre-2004 EU members showed significantly greater interest in scientific writing than those living in countries that have joined since 2004. The split is dramatic, with 62% of pre-2004 EU members demonstrated interest in scientific research, while only 38% of respondents in the newer states reported similar interest. Attention to scientific research was highest among people in Nordic and Benelux countries, along with France. Bulgaria was on the opposite end of the spectrum, with only a quarter of respondents reporting interest in science news.

Men, the well-educated and managers were most keen on science writing, though the split between men and women was not so pronounced. 60% of men reported interest in science topics, while 54% of women did.

In addition to looking at differing content areas, the poll also observed the different forms of media used to disseminate scientific news. Television was cited as the most trusted and heavily accessed medium, with 47% of Europeans stating that they favour the 'telly' for science news over all other mediums. TV was followed by newspapers, radio and the Internet in terms of their trustworthiness. Europeans also preferred that research be delivered by scientists rather than journalists, though they noted that journalists were likely better equipped to make news easier to understand.

Unsurprisingly, science news wasn't among the most closely followed topics across the EU. While 31% of respondents mentioned some interest in scientific news, it wasn't the top vote-getter. News on entertainment and celebrities (35%), politics (34%) and culture (32%) all carried greater interest than scientific research. But they all pale to sports news, which outpaced all subjects at 40%.

The full report can be found online at http://ec.europa.eu/public_opinion/archives/ebs/ebs_282_en.pdf

