The European Nuclear Society

Largest nuclear society for science and industry

ENS Feedback on the

European Commission Green Paper
Towards a European strategy for the security of energy supply

The European Nuclear Society welcomes the adoption by the Commission of its Green Paper on security of energy supply. This initiative creates an opportunity to have a large and open debate on all sources of energy, including nuclear energy, and the ENS has therefore taken the opportunity to reflect on the presented paper and accepts the invitation to deliver comments on the presented ideas.

The aims of the European Nuclear Society are to promote and to contribute to the advancement of science and engineering in the field of the peaceful use of nuclear technology. In addition to the daily networking, the ENS organises various activities in order to ensure the transfer of nuclear know-how to the actual and future generations and to communicate on nuclear science and technology, inside and outside the nuclear world. ENS wants to trigger discussion, and at the same time profile itself as the platform for dialogue and as an open house for reflection on the issues. As a scientific learned society, we share the European Commission's concerns about minimising human impact on the planet and preserving natural resources for future generations.

Our feedback consists of some general reflections on ideas presented in the three parts of the green paper, indirectly referring to questions n° 7, 8 and 9 of the Guidelines for the Debate, completed with a reply on question 13 of the Guidelines.

Green Paper ; Part one — **Basic facts about energy in the European Union**
Comment referring to § II. 'Less Than Perfect Energy Options'

The Green Paper states that a major concern for the EU is the important dependency on the international market for what energy resources is concerned, and the limited ability to influence dialogue at world level. Therefore the paper concludes in Part One, §1 that "... Given the external risk factors present (whether related to volumes, prices, investment levels, geopolitical factors, etc.), the best guarantee of security of energy supply is clearly to maintain a diversity of energy sources and supplies...".

In relation to this conclusion, the European Nuclear Society believes that *a balanced energy mix, including nuclear*, can contribute to strengthen the European position in this respect. Nuclear energy has the capacity to be an important component of a sustainable future energy strategy. A stable uranium price, not affected by international politics, is an element that in any case 'softens' the dependency of the EU on the international market. The ENS wants to stress on the fact that the reasons nuclear became an – as the Paper states it – 'undesirable option' have in fact no specific technological neither economical origin. For many countries nuclear has proven to be a reliable energy source, almost domestic, supplying large amounts of energy in

an economical way. The performance record of the European nuclear power plants has been very good in the past, and there are no reasons to believe that this would change in the future.

The Green Paper states correctly that the negative perception of nuclear with the general public is due to the historical link with military applications and to the lack of transparency of the industry in the past. The ENS has done major efforts already, and plans to do so in the future, to stress on the importance of peaceful applications of nuclear technology, and to invite the general public to reflect on the issues together with us.
With regard to your conclusions on the waste issue, we can say that the European nuclear industry is ready now to demonstrate that there are satisfactory solutions, and engages itself to do this with maximum transparency.
It is true that – as the Paper states – nuclear has economic and technological constraints, but so has every energy source, including renewables. The challenge is to find a sustainable and balanced energy mix, as well on European level as within the member states itself, taking into account the geographical, technical and economical constraints of the available options, as well as the existing and planned international regulations to protect the environment, such as the Kyoto Protocol.

Green Paper ; Part two — **A new reference framework for energy**
Comment referring to § I. 'The Challenge Of Climate Change'

The ENS believes that the principles of the Kyoto protocol are an effective first step towards a global solution for the climate change issue. In this respect, the implementation of the Protocol should in the longer term not limit energy choices by excluding any technology from the flexible mechanisms. All technologies should be subject to the same set of objective criteria, and all countries should have the right to choose the technologies that are best suited to their particular needs. Moreover, the ENS asks every member state to reflect on its own responsibility in order to ensure a consensus on a global environmentally friendly energy policy.

In relation to the presented *new reference framework for energy*, we want to stress on the importance to consider not only regulations originating from the *drawbacks* of the available energy options as driving forces within the new framework, but also to take into account the *intrinsic benefits* of each technology. The fact that nuclear produces electricity, with virtually no greenhouse gas emissions and emits virtually no pollotants, is additional positive elements to the intrinsic benefits such as the economical competitiveness, the high security of supply, the use of small land areas and the small amount of fuel needed to produce a large energy output.

Green Paper ; Part three — **Securing the future: outline of energy strategy**
Comment referring to § II. 'Tomorrow's Priorities'

The ENS agrees that *controlling the growth of demand* and *managing supply dependence* are key priorities for a secure long-term energy policy. However, the presented priorities focus only on market mechanisms, and not on the back up of these mechanisms provided by R&D done by the industry and the scientific community.

Although, due to specific political programs, the future of nuclear electricity generation is unsure in some European member states, most of those member states recognise the need to preserve the nuclear know-how for the mid-term and long-term future. Technical know-how provides the solid back up needed to be able to react in an accurate way to the rapid changing energy market, while in the mean time the presevation of it is essential in order to keep an eye on the long-term perspective.

The ENS asks the Commission to consider the addition in the Green Paper of a notification for member states to *stimulate them to take the necessary actions with regard to the preservation of the nuclear expertise and the transfer of know-how to the next generations*, and to take initiatives within the same respect on European level. In the past, the ENS has contributed

already to nuclear R&D related initiatives of the EC, and is prepared to assist to eventual future EC-initiated actions with regard to transfer of know-how.

Green Paper ; **Guidelines for the Debate**
Comment referring to question 13 : 'How can we develop more collaborative visions and integrate the long-term dimension into deliberations and actions undertaken by public authorities and other involved parties in order to evolve a sustainable system of energy supply? How are we to prepare the energy options for the future?

A key factor of a successful development of collaborative visions and a successful involvement of other parties in the debate is the ability of every party to see 'beyond borders' and to broaden it's own perspective on the issues. A *pro-active sensitisation of the younger generations* with regard to energy and environmental issues, and with regard to our responsibility towards the ecosystem and towards the least developed parts of the world, *is an essential condition for a new consensus vision on how to evolve a sustainable system of energy supply*.

The ENS is convinced that, next to even more 'specialisation', young nuclear professionals need a broad view on the social, economical and political issues related to nuclear technology. We want our people to think 'out of the box' and to develop a critical mind about energy issues in relation to sustainable development.

Although sustainable development will remain a subjective and scientifically contested notion, we think it is possible to develop a framework (a coherent method) wherein *everybody* feels 'at ease'. Ensuring the compatibility of a civilised society with high health considerations and with a preserved ecosystem cannot be done starting from a pure technological perspective ; it needs a transdisciplinary approach.

ENS believes that it is worthwhile to consider the nuclear option as a part of a global environmentally sound energy policy, provided that it is backed by a consensus on the ethical, political and social aspects. In addition, we are prepared to see the issues in a broader 'supra-technical' perspective, and invite the others in the debate to do the same : continuing to work within an ethical and social perspective, with an attitude of transparency and openness, and with the participation of politicians and the public.

Our position is that politicians, as well on European as on national level, should maintain a transparent connection with the industry and refresh and strengthen its interaction with the scientific world, by stimulating the involvement of technical as well as human sciences, in order to keep the technical know-how, as well as the broad perspective necessary for consensus talks.

European Nuclear Society

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