

Contribution to the debate on the Green Paper  
Towards a European strategy for the security of energy supply

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Please add your answers after the question(s) which deal most closely with the subject(s) on which you wish to comment so that the Commission can deal with the remarks efficiently and swiftly.

1.	<p>Can the European Union accept an increase in its dependence on external energy sources without compromising its security of supply and European competitiveness? For which sources of energy would it be appropriate, if this were the case, to foresee a framework policy for imports? In this context, is it appropriate to favour an economic approach: energy cost; or geopolitical approach: risk of disruption?</p> <p>Answer: The Green Paper sketches a future in which Europe's dependence on energy imports from politically unstable regions continues to increase. Likewise, the CO<sub>2</sub> content of the atmosphere keeps rising, the bulk of the world's emissions coming from the developing countries. One may hope and expect that the coupled problems of energy dependence and climate change will rise on the political agendas in years to come.</p>
2.	<p>Does not Europe's increasingly integrated internal market, where decisions taken in one country have on an impact on the others, call for a consistent and co-ordinated policy at Community level?</p> <p>Answer:</p>
3.	<p>Are tax and state aid policies in the energy sector an obstacle to competitiveness in the European Union or not? Given the failure of attempts to harmonise indirect taxation, should not the whole issue of energy taxation be re-examined taking account of energy</p>

	<p>and environmental objectives?</p> <p>Answer:</p>
4.	<p>In the framework of an ongoing dialogue with producer countries, what should supply and investment promotion agreements contain? Given the importance of a partnership with Russia in particular, how can stable quantities, prices and investments be guaranteed?</p> <p>Answer:</p>
5.	<p>Should more reserves be stockpiled - as already done for oil - and should other energy sources be included, such as gas or coal? Should the Community take on a greater role in stock management and, if so, what should the objectives and modalities be? Does the risk of physical disruption to energy supplies justify more onerous measures for access to resources?</p> <p>Answer:</p>
6.	<p>How can we develop and ensure better operation of energy transport networks in the European Union and neighbouring countries so as to enable the internal market to function properly and guarantee security of supply?</p> <p>Answer:</p>
7.	<p>The development of some renewable energy sources calls for major efforts in terms of research and technological development, investment aid and operational aid. Should co-financing of this aid include a contribution from sectors which received substantial initial development aid and which are now highly profitable (gas, oil, nuclear)?</p> <p>Answer:</p>
8.	<p>Seeing that nuclear energy is one of the elements in the debate on tackling climate change and energy autonomy, how can the Community find a solution to the problem of nuclear waste, reinforcing nuclear safety and developing research into reactors of the future, in particular fusion technology ?</p> <p>Answer: There is no single solution to these problems, it is counterproductive to promote only one partial solution or the other. Changes in behaviour, technical developments, legal instruments and appropriate investments must all be parts of a concerted attack on imported and polluting energy sources. But the sector of the energy economy where the largest gain is within reach, is electricity production. This accounts for nearly one third of CO<sub>2</sub> emission, and even more could be avoided if economically, socially and environmentally acceptable ways to produce enough electricity were at hand. Eventually, even the transport sector could turn to hydrogen produced with electrical energy. The technology that can make all of Europe's electricity carbon free (that is free from net release of CO<sub>2</sub> into the atmosphere) is either at hand or within sight. This includes the renewable energies, nuclear fusion, cleaning of fossils, as well</p>

	<p>as safe nuclear fission energy.</p> <p>The safety of fission reactors and fuel cycles needs deeper analysis, but it is not so much a technical problem as one of political courage and resolve. Political attitudes towards specific energy sources – not just nuclear – have shown dramatic changes over the last half-century, and may well do the same over the next one. A wise decision is therefore a reversible one. It is necessary to investigate the ultimate potential of fission energy and to weigh the remaining risks against those of economic instability, political blackmail and climate change. Ultimately, the world will take recourse to durable – renewable or inexhaustible – energy sources, but this philosophical argument does not exclude fission as a bridge towards a future in which fusion may have taken its place. The last word has not been spoken on how far the safest reactors employed in a non-reprocessing fuel cycle, as adopted in the US, can go in allaying fears of real and imaginary dangers. Obviously, the last word must be a political one, but it must be spoken after, not before all benefits and risks have been clearly expounded. As France has shown, the aim of making all electricity carbon-free could be reached in two or three decades, if so decided; without fission energy the time will be perhaps twice as long. Fission buys time. Clearly, today’s Europe is not inclined to follow the French example all the way, but it should not block future generations from deciding for themselves.</p>
9	<p>Which policies should permit the European Union to fulfil its obligations under the Kyoto Protocol? What measures could be taken in order to exploit fully potential energy savings which would help to reduce both our external dependence and CO<sub>2</sub> emissions?</p> <p>Answer: The Paper signals a rapid growth of wind energy. This is conquering a niche where it can probably hold its position in competition with other forms of carbon-free electricity, as may other alternatives. With regard to fusion, the technical appendix to the Green Paper does not reflect current thinking. There appear to be no scientific and technical barriers that prevent fusion from coming available much sooner than “over 50 years from now”. In competition with other carbon-free technologies, its chances will lie initially in base-load electricity generation. But the economic comparison cannot be made just in terms of the cost of a kilowatt from one source or the other, but must consider the European supply system as a whole, including back-up capacity, storage facilities and high-voltage grid. Such a comparison will probably bear out that the best economic prospects lie in a diversified system.</p> <p>Most efforts to tackle Europe’s energy dependence also contribute to reducing the World’s CO<sub>2</sub> emissions, but even if Europe solves the first of these problems, the impact on the second will be only marginal. To gain more leverage on long-term climate change, Europe must help to steer the developing nations away from their reliance on fossil fuels; there is little else that can be done in this respect than to make new and improved technologies available to all.</p>
10.	<p>Can an ambitious programme to promote biofuels and other substitute fuels, including hydrogen, geared to 20% of total fuel consumption by 2020, continue to be implemented via national initiatives, or are co-ordinated decisions required on taxation, distribution</p>

	<p>and prospects for agricultural production ?</p> <p>Answer:</p>
11.	<p>Should energy saving in buildings (40% of energy consumption), whether public or private, new or under renovation, be promoted through incentives such as tax breaks, or are regulatory measures required along the lines of those adopted for major industrial installations?</p> <p>Answer:</p>
12.	<p>Energy saving in the transport sector (32% of energy consumption) depends on redressing the growing imbalance between road and rail. Is this imbalance inevitable, or could corrective action be taken, however unpopular, notably to encourage lower use of cars in urban areas? How can the aims of opening up the sector to competition, investment in infrastructure to remove bottlenecks and intermodality be reconciled?</p> <p>Answer:</p>
13.	<p>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?</p> <p>Answer: Evidently, liberalization and privatization of the utility markets discourage the industry from investing in long-term research and development. The national governments and the EU must take responsibility for filling this gap.</p> <p>The EU should:</p> <ul style="list-style-type: none"> <li>• Set a timetable for the elimination of carbon emission from electricity generation.</li> <li>• Enforce the transition by legislation, or encourage it by taxation.</li> <li>• Create an open market for carbon-free energy.</li> <li>• Support the relevant RTD up to the stage of development projects.</li> <li>• Forge an alliance between industry and the RTD community to work together towards the goal of carbon-free electricity generation. Steps in this direction could be: <ul style="list-style-type: none"> <li>• To create a Council for Carbon-Free Electricity that monitors progress and gives advice to the Commissioners for Energy, Market and RTD.</li> <li>• To organize conferences and workshops where experts from utilities, manufacturing industries and research establishments report on progress and evaluate actions towards the political objectives agreed upon by the European Union.</li> </ul> </li> </ul>

14.

Any other questions or proposals:

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Thank you for replying to this questionnaire.