

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

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What are you areas of interest?	Renewable energies and energy efficiency-basically fossil fuel energy replacement
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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: Not without economic losses. The economic approach is to promote energy efficiency [60 percent savings possible in towns], integrate the use of energy, water and waste Europe wide, to maximise economic benefits, and to relate the price of heat to the price of electricity. Presently heat energy is much undervalued. A very large programme of renewable energy should be undertaken, using new mechanisms and modifying the EU Directive to allow a proper EU liberal market in green energy and embedded generation to develop. Without such market mechanisms there will be insufficient investment in renewables which could provide 40 percent of Europes needs by 2020. Energy costs should rise only AFTER the energy saving and renewable investments have been made.</p> <p>There is a severe risk of geopolitical disruption, especially in the Middle East and North Africa, where Saudi Arabia's main Gawara field has waterflood, and could be depleted by 2010; where Iraq sits on the only easily accessible large oil reserve left on the planet [110 billion barrels recoverable estimated], and where Algeria is expected to run out of water within 25 years. There is also inadequate investment in Russia and central Asian oil and gas exploration and development. Huge investments are needed just to maintain our current gas imports from Russia-for example, it is estimated the pipeline system through Ukraine needs \$4 billion spent on it to revamp the compressor stations.</p> <p>There is also the problem of the European Gas directive being inadequate and unworkable as it fails to address how the 60 to 100 percent of additional pipeline capacity estimated needed for a liberalised market is going to be financed, when open access means ordinary commercial financing of pipelines which relies on selling forward by fixed prices 80 percent of the capacity, can no longer work with open access rules.</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: most definitely. This is especially true of renewable electricity, which needs a separate European wide market structure to optimise development. Large baseload brown</p>

	fuel suppliers are being difficult with access to grids, for renewables and intermittent or small scale energy supplies are penalised. Only a proper European wide structure, creating a secondary market in renewable energy will overcome this serious barrier to development.
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 and environmental objectives?</p> <p>Answer: Yes. The New Electricity Trading Arrangements in the UK are a classic example- they are based on a policy of 75 percent future gas use, and all other sources of energy are discriminated against. This is both an uncompetitive practice and bad for future security of supply considerations. It is absolutely fundamental to review this entire situation for Europe and remove uncompetitive practices- we will need every source of energy possible from renewables for the future, and renewables should also mean energy from waste in all EU countries [in UK the government refuses to acknowledge energy from waste as a renewable, despite EU doing so]. There must be a coherent policy and strategy.</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: A bilateral EU/Russian energy programme should be agreed. Russia is trying very hard to implement energy efficiency measures in small-scale energy sector, but has not yet managed to do so for its industrial sector. It also needs help with green certificate and tradeable carbon permit legislation- as does the EU. The new market must be structured and properly regulated. There are great discrepancies in carbon pricing e.g. Dutch prices are 8 Euros per tonne CO<sub>2</sub>, World Bank \$3. Standardisation is vital.</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: Yes. For example, even China, which has never had a strategic petroleum reserve, is now embarking on an oil stockpile, having accepted reports of declining world oil reserves with a possible crisis around 2010, and also geopolitical problems. EU could probably do with more cryogenic gas storage as well. The Community needs an integrated programme and spread stockpile. The risk of physical disruption justifies the measures needed to overcome any future problems.</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: The Blue Corridor programme needs to be expanded, not only with CNG, but also moving to fuel cells. Investment into new facilities for such transport fuels needs encouragement at all levels, including point of use. Pricing of transport fuels should be standardised across the EU to allow a fairer open market and trade to flourish.</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: Definitely. Probably by allowing tax breaks for those who re-invest their profits from oil, gas, nuclear into green energy and alternatives, such as energy efficiency.</p>
8.	Seeing that nuclear energy is one of the elements in the debate on tackling climate change

	<p>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: With difficulty. The major concern in some areas has to be nuclear plant which is low lying, near the sea, when we have rising sea levels. There is also the question as to whether it is sensible to replace nuclear with nuclear on sites already contaminated as it takes up to 300 years for them to become clean anyway. As an interim measure we may need to keep the technology and use the power. Fusions has previously had control problems from stray neutrons etc. but the programme should continue-if it does eventually work, it could be very beneficial. The Swedish model for nuclear waste storage should be considered for the whole of Europe-there should be standardisation.</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 CO2 emissions?</p> <p>Answer: We need to have a new EU programme to stimulate manufacturing and to allow traditional manufacturers to re-invest in equipment and people to manufacture the new technologies-for example, mass production of microturbines, heat exchangers, fuel pumps etc.</p> <p>Building regulations across the EU need to be standardised for maximum energy efficiency and interchangeability of products. All new buildings should be subject to infrared camera photographs to make sure there are no energy leaks before they are registered or accepted. A mass education program of planners, architects and builders is needed across Europe to promote energy efficient town planning and building.</p> <p>We need a proper EU wide market for renewable energy, and also [separately] for green certificates and carbon dioxide emission trading.</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 and prospects for agricultural production ?</p> <p>Answer: Co-ordinated decisions are required -the targets will never be achieved without them.</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: Yes.</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: Corrective action essential-change of life style, getting people living nearer work, important. Promotion of e commerce and working from home, or in distributed units should be encouraged, along with better telecom networks at least cost prices. Reconciliation can come through structured development programme and education/dissemination of information to all groups in society.</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</p>

	<p>options for the future?</p> <p>Answer: Most ordinary people, and many of their political representatives have absolutely no idea of the economic and political realities we now face in respect of energy supply and use, and the need for a change of life-style and technologies to cope with this. An intensive Europe wide programme of information dissemination is needed, as well as need-to-know training packages for all politicians and key industrial decision makers, so the economic options are made clear. A bottom up programme of dissemination through regular television programmes is needed for the general public, and publications for schools, old peoples groups, and many other elements in society.</p>
14.	<p>Any other questions or proposals:</p> <p>As an experienced EU technical assistance adviser, I would like to spearhead an expert EU group to examine new market mechanisms for trading renewable energy, including grid access across Europe for physical delivery, as well as SWOPS. I think this is most important.</p> <p>I also think a technical [engineering and financial] working group is required for examining barriers to the integration of energy, water and waste across Europe, with recommendations to be made to the EU on this subject.</p>

Thank you for replying to this questionnaire.