

EREF comments to the Green Paper *Towards a European strategy for the security of energy supply*

With the Green Paper on energy supply security the European Commission has announced that it wanted to launch a general debate on a future European energy strategy. EREF welcomes the invitation to such a discussion with the Commission. We wish to present constructive comments and are always ready to discuss directly with the European Commission.

Unfortunately we regard the Green Paper as a missed opportunity.

The starting point of the Green Paper is the European Union energy sector's structural weakness and high dependence on external energy sources.¹ It is estimated that without changes in its policy, Europe would in 2030 have to import 70 % of its energy demand from outside the EU.

This is seen as threat to economic and social stability. Moreover, this current situation carries too many ecological risks.

A reduction of greenhouse gases seems to pose a more difficult problem to the Commission than foreseen some years ago. Without remedial measures, greenhouse gas

¹ See Green Paper, page 7: “ It currently imports some 50% of its requirements, a figure that will rise to about 70% in 2030, with an even greater dependence on oil and gas. Security of supply in the energy field must be geared to ensuring, for the good of the general public and the smooth functioning of the economy, the uninterrupted physical availability on the market of energy products at affordable prices (both for private and industrial consumers), without losing sight of the overall goal of sustainable development enshrined in the Amsterdam Treaty. “

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would increase in Europe by 5.2. % in the year 2010 and contradict the obligation of the EU to reduce emissions by up to 8 % in 2012, based on the level of 1990. To follow up the target in the White Paper for 2010 of 12 % Renewable Energy Sources (RES) the medium term ambition for 2030 should rather be another doubling of the RES share to 25 %. The long-term target is of course 100 % RES with an import share of may be 20 %.²

If the European Union takes such steps for increasing RES, there would be less reason to fear fluctuations in prices and supply of energy and also less reason to invest money and man- and brainpower in the field of conventional energy sources. The estimated increase of gross energy demand of 11% until 2030 would be covered and RES would fill in for the reduced supply from conventional energy sources such as coal and uranium.

The opening and liberalisation of the energy markets also lead to a new situation on the demand side. Falling prices hinder control of growth and demand and climate protection efforts. The Green Paper unfortunately shows many weak points and endangers, despite some positive elements, Member States' efforts to increase energy efficiency and the production of RES in Europe.

The Green Paper seems to have already abandoned the Kyoto targets. Renewables do not play any important role in the paper. This is surprising, especially in the light of the latest developments and the move forward of the international community, including Europe, excluding the U.S., to continue with Kyoto and to show an important commitment.

Also extremely unfortunate is the link between RES and nuclear energy expressed in the Paper. The Green Paper regards nuclear power as way out of the climate problem and

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energy dependency and only acknowledges a minor role for the RES sector. It is not consequent about the potential of energy efficiency.

In seven Member States, nuclear power has been phased out or never existed. In a number of others, e.g. Belgium, Germany, the Netherlands and Sweden, a shutdown schedule for their countries' operating reactors has been adopted. The decisions to abandon nuclear power in these countries were not taken lightly or without severe public and political debate.

Those Member States, especially Germany, have undertaken serious studies which prove and demonstrate that Europe could transform its energy supply structure into a sustainable, almost self-sufficient solar (meaning all forms of renewable energy sources) energy structure within the next 60 years, creating new employment and a competitive export posture in all fields related to this re-structuring.

The Green Paper pretends that such a possibility is beyond the horizon and unrealistic but concentrates on a technology which has proved to be unsustainable, uncontrollable and dangerous and which already imposes extreme financial and social burdens on Member States with its waste and de-contamination problems. The Green Paper fails to provide any strategy for a sustainable new energy demand and supply system in Europe but aims at reviving the nuclear power cycle. All other policies are mentioned, but not taken seriously enough to set targets to increase energy efficiency, to increase the production of RES technology, to tackle the necessary phasing out of CO₂ energy in Europe and to tackle new ways of co-operation with third countries in order also to ensure RES energy from third countries as additional to a new solar-based structure in Europe to be achieved within the next 60 years.

We therefore regret that as a consequence to this favouritism for a nuclear option, the largest single element of the Commission's RTD budget for energy in its new Framework Programme is devoted primarily to controlled nuclear fusion. The

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Commission's total Nuclear Energy Programme is a package worth Euros 1,260 million, and Euros 788 million of this is reserved for nuclear fusion. An outcome of this fusion research would not be available for at least 40 years, which is unacceptable in respect to the current need to reduce CO2 and greenhouse gases.

Therefore, a radical change of funding away from nuclear and towards efficiency, renewables and bridge technologies as CHP must be adopted. Renewable sources of energy are indigenous, relying only on wind, solar, biomass, geothermal and water resources for their energy production. Especially in countries with strict feed-in systems as Denmark in the past, and Germany and Spain, it can clearly be proven that the development of the wind energy technology industry and other renewable industries can become competitive in the energy supply market. The long-term environmental benefits and the benefits to the burgeoning technology industry can be supported through EC activities.

We regret that the last oil crisis was taken as a pretext by the Commission for this Green Paper on security of supply which is presented in a way as to make the European public believe that nuclear energy is the solution of our environmental and climate problems and the most reliable source of supply.

We would like to answer the 12 questions of the Commission as following:

1a.– Can the European Union accept an increase in its dependence on external energy sources without compromising its security of supply and European competitiveness?	A true European Green Paper on security of supply which claims to provide a valid strategy for the coming generation should have an encouraging and progressive leitmotiv for a complete restructuring of the whole energy sector in Europe within the
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	<p>whole energy sector in Europe within the coming 50 to 60 years towards a completely sustainable, efficient and renewable supply structure phasing out the use of CO2 energy sources and nuclear power thus escaping from any dependence from oil and gas sources from third countries.</p> <p>All individual measures and policies should be defined from this starting point.</p> <p>Basic steps to be followed would be:</p> <ol style="list-style-type: none">1. <u>The phasing out of all subsidies for traditional CO2 energy sources and nuclear energy.</u> <p>It seems a lost chance that the Council regulation on state aid to the coal industry [COM (2001)423] final continues to justify “maintaining minimum coal production capacities supported by state aid” (p.9) in order to ensure Europe’s long term security of supply, allowing to go on with subsidies beyond the original goal of 2010 for the complete phasing out of subsidies for production and consumption of fossil fuels.</p> <p>But we also would like to underline that there is at least a positive approach in this new Council regulation because it explicitly states that a degressive nature of aid to the coal industry will enable Member States to change the allocation of aid in transferring the aid from the conventional sector towards support to renewable energy sources. We nevertheless regret that the Council and the Commission are still underestimating the overall capability of RES to completely replace conventional energy sources in a relatively short period of time, as shown above. Germany and Spain for</p>
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<p>1b.– 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 costs; or geopolitical approach: risk of disruption?</p>	<p>example as the major contributors of state aid to their coal industry, were supposed to reduce subsidies to this sector during the last 7 years. But they still contribute almost the same amount of total subsidies since 1994, only shifting more from operational aid to aid for reduction of activity and other aid schemes for the sector. (s. council decision, table on page 28)</p> <ol style="list-style-type: none">2. <u>The support of energy efficiency and energy saving.</u>3. <u>The support for bridge technologies like CHP based on natural gas with increasing use of biogas as substitute.</u>4. <u>The intensive increase of the use of Renewable Energies Sources (RES) beyond the targets of the White Paper on RES.</u>5. The support for the development of energy efficiency, wind and solar energy especially in <u>Central and Eastern Europe, developing countries and especially in EU neighbouring countries of North Africa and the Mediterranean.</u> External aid would focus on energy efficiency and the transfer of technology , know-how and direct support to installations for the use of RES energy. <p>Naturally, from our point of view a European Solar Strategy as proposed from our side would need a specific management policy by the Commission in</p>
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<p>2.- Does not Europe's increasingly integrated internal market, where decisions taken in one country have an impact on the others, call for a consistent and co-ordinated policy at Community level? What should such a policy consist of and where should competition rules fit in?</p> <p>3.- 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>order to discuss, streamline and verify a necessary joint effort of all Member States and the Commission to change the direction of the current energy policy towards a sustainable, mostly self-sufficient structure. The Commission could be the right address to supervise all needed measures for phasing out of all other energy production in a coherent and social acceptable way.</p> <p>This would be possible if and when the Union decides on a joint strategy following the above mentioned guidelines. As this is not the case yet, it would be more sensible for the Member States to continue their national energy policies in the medium term. The Commission should continue its role as watchdog, support and assistance to the Member States, unless a White paper would be prepared and approved which would follow the above approach for a sustainable self-sufficient and efficient energy policy and strategy in Europe.</p> <p>A central point for a sustainable energy policy is the creation of a harmonised framework for energy taxation in Europe.</p>
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<p>4.- 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>EREF supports the European Commission in its attempt to finally prepare a European Directive on energy taxation.</p> <p>State aid for the Nuclear and Coal sector must be abolished as fast as possible in order to obtain a level playing field for renewable energies.</p> <p>If the European Union and the Commission would set a common target for a new sustainable energy structure in Europe as described under point 1, this question would only represent an interim problem.</p> <p>The EU could, for example, certainly assist Russia to improve its energy efficiency and structure and to reach Russia's Kyoto obligations. But the EU should certainly aim at reaching its own energy structure, which would not need f., e.g. the Russian primary energy, especially gas.</p> <p>The EU should make it clear that it does not want to continue the dangerous and risky tendency to reserve production capacity in third countries which will not become EU members and that such an approach would be one cornerstone of the EU's energy supply policy. Bearing in mind that this dependency for import is too high, this "escape", especially from Russian supply, would only prolong and deepen this tendency without any structural change within Europe in the above mentioned way towards a solar-driven Europe.</p> <p>The White Paper on energy policy in the</p>
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<p>5. 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>6.– How can we ensure the development and better operation of energy transport networks in the European Union and neighbouring countries that enable the internal market to function properly and guarantee security of supply?</p>	<p>Union was much more consequent and critical concerning the import of environmentally unsound energy from third countries than this Green Paper and underlined the impossibility of such an opening towards non-EU Member States in the East with difficult environmental background. S. Rn 104/ 4.4.1 of the White Paper.</p> <p>This is only interesting for the period during the next 20 years while and if the Union is going to restructure its energy supply system. If the Commission should have a greater role in this would be a question to negotiate with the Member States. If it would be to better ensure efficient use of the reserves, it could be encouraged.</p> <p>The Commission must assure prudent capacity management and equal access to the transnational grid connection points.</p>
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7.- The development of some renewable energy sources calls for major efforts in terms of 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)?

This is a very suggestive question, aiming to put the RES industry in the awkward situation of being the beggar or robber to the nuclear and coal industry.

It cannot be seriously sought to ask the RES industry to knock at the doors of those administrations in the Member States and the Commission responsible for subsidies to the traditional energy sector, asking for the favour to reorient some of these subsidies in their direction.

All Member States should continue to decrease subsidies to the conventional sector.

This would immediately improve price clarity for energy and would improve the balance of internalisation of external cost into the price of energy. Without these obstacles of subsidies, the RES would not need further support mechanisms since prices would reflect greater economic and environmental reality.

We would like to point again to the appalling discrepancy the Commission is further proposing with its new 6th framework RTD proposal: the Commission's total Nuclear Energy Programme amounts to Euros 1,260 million, and Euros 788 million of this is devoted to nuclear fusion. The weak chance of realisation of any nuclear fusion in a future of more than 50 years and the extreme amount of money this will need cannot be considered at all in the face of urgent climate change problems and requirements to act now. Never had

<p>8.– 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>energy savings, efficiency or the renewable technologies or CHP ever received such a support as the nuclear technology has obtained for decades. It is high time to stop such wasteful programmes and begin to concentrate on a consequent solar strategy for Europe. The Commission should seriously and urgently reduce all amounts of RTD spending for nuclear and CO2 rich energy, except for CHP bridge technologies. All research foreseen especially for fusion must be redistributed towards programmes for energy efficiency savings, CHP and RES.</p> <p>First of all our deep regret and criticism of the Green Paper as the promoter of a nuclear revival should be underlined again.</p> <p>This suggestive question 8 can be divided in three parts and we would like to make the following observations:</p> <p><u>a) the energetic use of nuclear energy as contribution to the climate challenge and towards a reduction of import dependency:</u></p> <p>We do not share the opinion of the Commission in this Paper that nuclear power can be a solution to the climate change problem.</p> <p>The majority of the Member States have on the contrary decided against nuclear power.</p> <p>The central criteria for the evaluation of</p>
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	<p>whether or not a technology promotes the development of our sustainability would be neutral to it.</p> <p>Under various criteria, nuclear power is not compatible with sustainability. In the past, and still under the philosophy of the Green Paper, the approach has been to look for alternative solutions of energy production. Progressive and responsible member states and industry are seeking alternative solutions for energy production, first of all related to energy efficiency. A reduction of Co2 emissions through nuclear power has been repeatedly overruled in favour of a reduction via decrease of energy intensity in the GDP.</p> <p>That means nuclear power does not hold the potential to cope with the problem of economic growth plus energy demand growth ion a responsible climate protection policy, while energy efficiency already possesses this potential.</p> <p>On several occasions, the Green Paper suggests that an exit to the policy of phasing out of nuclear energy would address the tendency of increasing import dependency.</p> <p>Considering the fact that the EU share of indigenous uranium is far behind the EU share for fossil fuel, this argument is not valid. The Green Paper on several occasions fails to take a proposed uranium dependency into consideration, f. e.g. when analysing the import dependency in the energy sector (chapter I c). See also the analysis of the reduction of oil imports and improvement of the trade balance of Europe when forcing nuclear power in Europe (p. 20)</p> <p>Only once and not within this concept of direct effect on supply and imports, the Green Paper admits that 95% of the</p>
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	<p>uranium has to be imported into Europe (s. chapter 1.C.b)</p> <p><u>b.) The problem of nuclear waste</u></p> <p>This problem exists non-regarding a decision for the stop of all nuclear programmes. Therefore an EU directive should ensure a high security level in all respects.</p> <p>The thesis of the Green Paper that this problem of waste has been technically resolved remains to be proven convincingly. There is no such solution. Only second best solutions to store the waste eternally in mines and special underground storage sites has been proposed.</p> <p>Concerning such programmes, it should be made very clear that the EU budget should not bear the costs for a problem which is only caused in countries which continue to use or have used nuclear energy.</p> <p><u>c.) Nuclear fusion and new reactors</u></p> <p>The need for any such recommendation should be immediately rejected. (See above.)</p> <p>In view of the standard of the nuclear industry and its financial situation, EURATOM Research and Development funding should strictly focus on health protection for the population and environmental protection and further support schemes should be terminated, especially in the view of liberalised energy markets.</p> <p>And there is certainly no interest in export of nuclear material (to which the Green Paper hints at on p 86)</p>
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<p>9.- Which policies should permit the European Union to fulfil its obligation within 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>10.- 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 by oil companies and prospects for agricultural production?</p> <p>11.- 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</p>	<p>The best way to fulfil EU obligations within the Kyoto Protocol is to carry out all the measures we propose.</p> <p>This is a question, which should address the whole range of climate protection policies of the Member States and the EU.. All current efforts must be re-enforced; the Community must drastically change the existing RTD and other programmes of co/financing towards a solar strategy and exclude nuclear power. The Commission may use the model of working groups with the Member States, which it had implanted in the CHP sector and should exclude civil servants or administrations, which are responsible for the execution of the respective national and regional programmes.</p>
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<p>lines of those adopted for major industrial installations?</p> <p>12.- Energy saving in the transport sector (32% of energy consumption) depends on redressing the growing imbalance between road haulage and rail. Is this imbalance inevitable, or could corrective action be taken, however unpopular, notably to encourage rational 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>Energy savings could become to be one of the most important sources of energy production. Moreover, it could represent the best means to completely revitalise and restructure the European construction industry and the SME sector in this field. It could be one prominent motor to generate new and specialised jobs in Europe. But since this would cost more than the traditional way of building and renovating, there should be tax incentives. In order to have fair competition, it is suggested to implement respective directives with high standards as currently foreseen by the DG Environment.</p> <p>We certainly encourage the improvement of CO2 reduction in this sector and would recall the positive approach of the Commission in the Danish Rail decision, since one important issue would be to switch from freight road transport to rail and ship transport. EREF supports all other policies to reduce the burden from the environment resulting from the transport sector. Put a long-term vision/target and make a plan how to achieve it (see below).</p>
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Final remarks and suggestion

It may be sensible to discuss the feasibility of the preparation of a White Paper for the restructuring of the European energy supply towards a solar and sustainable energy supplies. In this regard, we would like to congratulate the EU Parliament's new movement "Energy Intelligent Europe".

The White Paper could designate several avenues of action for the next 30 years as already described above, such as:

- Enforcing and increasing the use of RES energy.
- Energy efficiency in transport and buildings.
- Energy efficiency in industrial and commercial use.
- CHP technology as standard technology and bridging technology.
- RTD only to encourage the restructuring of the energy sector towards a solar option.
- Climate action programmes.
- Targeted foreign aid focusing on sustainable development and renewable energy production and energy efficiency

The aim of such a framework paper would be the definition of targets that in the short and medium term would be the following:

- Increasing RES production.
- Reduction plan for total energy consumption in the Union. The total energy consumption ceiling has to be decreasing and all consuming groups such as transport, industry, commercial use, households would have their own reduction targets. A cost-benefit analysis must accompany these steps and a strict restructuring plan in the traditional sector should be established by all Member States.

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- Improvement of the current action plan of the EU to develop energy efficiency. Such an improved strategy is also important because the restructuring of the energy sector and policy would finally be understood and accepted as an opportunity especially in economic and social terms and not as burden as it is currently regarded, including also in the Kyoto process (as. “burden sharing”).

ANNEX 1

We would further like to give the following short comments to specific parts of the Green paper (page number referred to in the left column):

- 12 The headline “THE IMPOSSIBILITY OF ENERGY SELF-SUFFICIENCY” should be abandoned. In the longterm there are always possibilities.
- 28 EU energy policy is lacking This is serious and should be changed.
- 43 There seems to be conditioned response in many organisations to say that coal must be replaced by fossil or gas. That blocks the minds of many people from seeking better alternatives.
- 47 This part mostly deals with obstacles for the development of RES even if the possibilities are mentioned. The ambition is non-existent. We would like to see a much tougher message where the possibilities are focused and also necessary steps to achieve the targets are presented. It is necessary to cut the link to competition and just create a model that leads to the target independent from the so-called competition situation. In the total view it is of little interest what the market situation between RES and conventional energy sources is because the latter are obsolete and must be eliminated.
- 66 Efficiency. There is obviously a huge potential (40 %) to save energy. In medium term of around 18 %. Of course, this must be exploited.
- 66 Cogeneration. Here is an unexplored segment in many countries in the EU. It must however be based on biomass.
- 68 Why is not biomass considered in the presentation of production cost of electricity?
- 71 With the right development of RES market, there would be no need for special considerations for investments in coal- and nuclear energy plants.
- 78 Predictions seem to be based on an oil price of 27 Euro in 2030. What’s the uncertainty in that?
- 82 It is mentioned that energy prices must reflect real costs. Yes that would of course help a lot.

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- 83 Under c) Yes fine.
under d) No: don't waste energy on competition questions. Push hard for RES.
- 87 Partnership yes, but under the right conditions: instead of massive investments in fossil, gas, it would be better to encourage the use of resources for RES.
- Annex 14 Biomass lacking.
- Annex 18 Methanol and ethanol produced from biomass is used in many countries and is one of the possibilities for the future. Lacking here.

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