TEN/066
SECURITY OF ENERGY SUPPLY

Brussels, 30 May 2001

OPINION

of the

Economic and Social Committee

on the

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

(COM(2000) 769 final)

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On 4 December 2000 the Commission decided to consult the Economic and Social Committee, under Article 162 of the Treaty establishing the European Community, on the

Green Paper - Towards a European strategy for the security of energy supply
COM(2000) 769 final.

The Section for Transport, Energy, Infrastructure and the Information Society, which was responsible for preparing the Committee's work on the subject, adopted its opinion on 8 May 2001. The rapporteur was **Mrs Sirkeinen**.

At its 382nd plenary session of 30-31 May 2001 (meeting of 30 May) the Committee adopted the following opinion by 112 votes, with three abstentions:

1. Introduction

1.1 Energy is an essential commodity for all. Modern society is highly vulnerable to changes in energy availability and price. Relatively small disruptions can have detrimental effects on the economy, social conditions and competitiveness. Energy production and use can also have a major impact on the environment and public health.

1.2 EU energy policy has three parallel objectives: maintaining competitiveness, securing the supply and protecting the environment. Although the market and circumstantial factors have changed, these prime objectives are still entirely topical.

1.3 The opening up of energy markets to competition in the Member States and the aim of creating an internal market in electricity and gas are changing the ground rules of energy policy[1].

1.3.1 Energy companies can no longer be individually obliged to make certain investments or to take other measures as was the case in the time of state monopolies. Nor is it possible any longer in a competitive market to pass on whatever costs may arise to the consumer.

1.3.2 Competition generally makes for efficient use of resources and brings down prices on open energy and gas markets. There are fears that this in turn will reduce the motivation to use energy efficiently and to save it, and will prioritise short-term profits at the potential expense of long-term needs and consequences.

1.3.3 An internal market in energy in itself improves the supply situation in that the resources of many countries are pooled, at least in theory. However, this requires a true, completely open internal market in which the opportunities for cross-border trade are effective and balanced and transport connections are adequate.

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1 Proposal for a Directive of the European Parliament and of the Council amending Directives 96/92/EC and 98/30/EC concerning common rules for the internal market in electricity and natural gas (COM(2001) 125 final)

1.4 It is a feature of world energy markets that they only partially function in accordance with the principles of competition. Much of the world's oil is in the hands of a cartel. The number of operators in the natural gas market is small, as the high cost of infrastructure limits the degree of freedom in the market and pricing continues to be linked to that of oil. A large proportion of both oil and gas reserves are found in politically unstable regions. Electricity is a product that cannot be stored and is very difficult to transport over long distances. These technical factors restrict the extent to which there can be a free market for electricity.

1.5 As markets have opened up, Member States are now facing a new situation. What measures can be taken to ensure that power companies make adequate investment in energy production and distribution at the appropriate time and in a way which favours the environment so that shortages and the associated repercussions do not occur? By way of example, a serious problem occurred in California, where the markets were opened up in a clearly unsuccessful way, with wholesale prices being liberalised but prices for the final consumer kept at artificially low levels. However the real reason for the electricity shortage was that during a period of over ten years no additional electricity production capacity was developed in the state, nor were the transit grids strengthened. At the same time demand for electricity has grown rapidly. Europe must learn from this.

1.6 The task of governments in open energy markets is to establish a framework for ensuring that the market functions efficiently and that other social objectives can be achieved. Governments, or in certain countries states or regional governments in part, are responsible for:

- ensuring efficient and fair competition in the market which also guarantees the entry of new players;
- safeguarding the public service, including sufficient capacity under normal circumstances;
- any necessary taxation;
- promoting research and development activity;
- relations with other states and the EU;
- and promoting environmental protection and security of supply in the energy sector, in particular through the promotion of:
  - diversification of energy supply sources,
  - the use of renewable energy resources,
  - the efficient production, use and saving of energy,
  - sufficient strategic stockpiles and spare capacity.

Member States continue to have the right and responsibility to make their own choices concerning the forms of energy to be used independently.

1.7 The EU has been responsible for establishing the necessary common framework by applying in particular the articles on competition, the internal market and research cooperation. The most important measures are:

- integrated stockpiles of oil and oil products,
- minimum rates of taxation on oil products,
- the electricity internal market directive and monitoring its implementation,

– the natural gas internal market directive and monitoring its implementation,
– the rules for the internal energy market in connection with the above directives,
– joint measures for increasing the use of renewable energy sources, such as the Altener programmes,
– joint measures for increasing energy efficiency, such as the SAVE programmes,
– promoting international cooperation (Synergy programmes),
– research cooperation in the energy sector under the framework programmes, and
– Euratom Treaty joint measures in the field of nuclear energy.

Many of the EU's environmental provisions apply either directly or indirectly to energy production and use.

1.8 The ESC has endorsed the above-mentioned energy policy objectives in numerous opinions[2]. To avoid repeating the Committee's views on the various aspects, it is only the key messages which are reiterated here. The ESC has supported the opening up of markets as a means of guaranteeing competitiveness, but it has also called for the social and other implications to be taken into account. The public service requirement must be maintained to prevent exclusion and to safeguard social cohesion. The Committee has called for a high level of environmental protection in line with the EU's environmental action programmes and observing the principle of sustainable development. It has also supported the strong emphasis on renewable energy sources and efficient energy production and use.

2. Summary of the Commission Green Paper

2.1 The Green Paper is the response to an observable fact: Europe's growing future energy dependence. The European Union is extremely dependent on its external supplies. 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, if current trends persist.

2.2 Current energy consumption is covered for 41% by oil, 22% by natural gas, 16% by solid fuels (coal, lignite, peat), 15% by nuclear power and 6% by renewable. By 2030 the energy balance will continue to be based on the following assumptions for fossil fuels: 38% oil, 29% natural gas, 19% solid fuels, 6%[3] nuclear power and barely 8% renewable.

2.3 The EU cannot free itself from its increasing energy dependence without an active energy policy. Energy receives no more than a mention in the preamble to the Amsterdam Treaty. The Green Paper outlines the need to rebalance the policy of supply by clear actions for a policy of demand.

2.4 The analysis in the Green Paper sets out to show that efforts will have to focus on orienting the demand for energy in a way which respects the EU's Kyoto commitments and is mindful

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2 ESC opinion on Community Energy Policy (own-initiative opinion) of 14/9/1994, OJ C 393, 31/12/1994

ESC opinion on the Green Paper "For a European Union Energy Policy" (COM(94) 659 final) of 5/7/1995, OJ C 256, 2/10/1995

3 Assuming neither the member states nor the EU do anything to at least replace current plant when it reaches the end of its operational life.

of the security of supply. Security of supply does not seek to maximise our autonomy in energy or to minimise our dependence but to reduce the risks connected to the latter.

2.5 Therefore, the Green Paper sketches out the bare bones of a long-term energy strategy according to which:

– The Union must rebalance its supply policy by clear action in favour of a demand policy (mainly by promoting energy saving in buildings and the transport sector).

– It states the need to develop actions to modify trends in order to fulfil EU obligations under the Kyoto Protocol.

– It highlights the value of taxation measures to steer demand towards better-controlled consumption which is more respectful of the environment.

– The development of new and renewable energies is the key to change, doubling their share in the energy supply quota from 6 to 12% and passing from 14% to 22% for electricity production to be achieved between now and 2010.

– The contribution of atomic energy in the medium term must, in its turn, be analysed without omitting any element of the debate: waste management, global warming, the security of supplies, sustainable development, etc.

– Research on waste management technologies and their implementation in the best possible safety conditions must be actively pursued.

– As imports of oil and gas are increasing, a stronger mechanism ought to be provided to build up strategic stocks and also to strengthen and diversify supply networks.

2.6 The Commission does not propose in the Green Paper a ready-made strategy: it launches a debate on the essential questions which shed light on the energy choices to be made in the EU.

3. General comments

3.1 The ESC welcomes the Commission Green Paper as a commendable document. The various parts of the study point to the fact that the EU's external dependence is high and increasing, and at a time when oil and consequently also gas price trends have brought a reminder of the detrimental effects of dependence, it makes sense to try to put together a global picture of future developments. The environment, and especially the prevention of climate change, cannot be ignored when discussing energy, or indeed in this context.

3.2 If present policy continues, the prospects for the next 30 years are bleak. External dependence is growing substantially and so are greenhouse gas emissions. There is no reason to doubt

the theories and calculations. The scenario which is emerging must be taken seriously and account of it taken in all relevant measures.

3.3 The Commission's study is, however, very EU-centric and the issue must also be considered from a global perspective. Fossil fuels, which will continue to account for the majority of the planet's energy supply for the long term, are limited. The highest energy consumption is in North America and Europe, but as living standards rise in other parts of the world, fuel use is increasing fast in these countries. Competition for energy resources is intensifying, increasing the likelihood of a crisis, and there is already some talk of future energy wars. Against this background the Commission should be far more concerned about the EU's external dependence.

3.4 The time frame of the study should also be longer. Some basic aspects of the energy sector do not change much even over a 30-year period. Bigger changes in fossil fuel availability, for example, will not be apparent until later. On the other hand, the most recent technological solutions will probably only be really significant over the longer term. It is clear that the level of precision of the current analysis does not allow the time span to be extended. However, certain basic factors, such as the outlook for fossil fuel reserves and demographic change, could have been projected over a longer time frame. Longer-term assessments of breakthroughs in new technologies should be carried out.

3.5 The most important measure for reducing the risks associated with energy supply and other risks is to ensure the most diverse and balanced possible use of different types and forms of energy. In addition, efforts must be made to ensure the optimal use of every economically and ecologically feasible energy source. This cannot be emphasised enough. In this respect, the rapid growth in the use of natural gas and major reduction in the proportion of nuclear power forecast by the Commission would seem to be problematic. This trend also considerably increases both dependence on imports and greenhouse gas emissions.

3.6 The significance of energy to the national economy and the economic impact of energy policy decisions should be examined more closely. Although energy costs currently only account for a small percentage of national product, economic growth and competitiveness are highly sensitive to energy price rises. Growth in energy consumption is at present slower than economic growth; however within the EU two kWh of energy are still used on average for every euro of national product. Oil price changes continue to have a direct impact on the price of natural gas and coal, and changes in primary energy prices have a far-reaching multiplier effect on the economy. In addition, the exchange rate between the dollar and euro has a decisive impact, as the price of oil is still, at least for the time being, determined in dollars. Efforts should be made to conduct energy trade in euros.

3.7 The document raises a major question: can the measures envisaged by the Commission, i.e. mainly making energy use more efficient and increasing the use of renewable energy resources, really reverse the trend of external dependence and increasing greenhouse gas emissions within the timeframe in question without compromising economic and employment objectives? The Commission does not give any kind of figures on this point.

3.8 To respond to the major challenges of the Green Paper, the Commission needs to develop the common harmonised framework, the aim of which is to ensure general welfare and economic development and provide households and industry with a secure energy supply at a reasonable price, while respecting the principles of environmental protection and sustainable development. The assumption should be that Member States retain the right to take energy policy decisions independently, particularly with regard to forms of energy production, as well as the other views expressed in this opinion. Nevertheless, at the same time the Commission could, as it did in 1973 and 1979, establish indicative EU Community objectives that could serve as a reference basis for Member States to define their own energy plans, striving to achieve collectively these EU objectives.

3.9 In view of the global dimension of energy supply, the Commission should add the following to its list of questions:

The large energy consumption of other industrialised countries and the growing energy needs of developing countries are also continuing to increase the use of fossil fuels considerably. What measures could be taken by the EU to support the efforts of third countries to achieve sustainable development? Should renewable energy sources, especially solar energy, and the transfer of energy-saving technology and know-how to developing countries be promoted?

4. Answers to the Commission's questions

4.1 *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?*

4.1.1 The EU cannot at present avoid increasing its dependence on external energy sources, even though doing so entails risks to the security of supply and competitiveness. Dependency cannot be eliminated, but the risks can and should be kept low.

4.1.2 Some EU Member States and regions are particularly vulnerable as their external dependence is over 50%. The energy policies of these countries must pay special attention to the supply question. It is particularly important for these countries and regions to examine what common measures at EU level could help to prevent their vulnerability. Particular attention should be paid to the problems of the EU's remotest regions.

4.1.3 Creating a framework policy as such for energy imports of one or various fuels is hardly possible in today's market. Instead, the opportunities for companies to do business freely and under reciprocal conditions should be raised in all relevant EU bi- and multilateral external relations. Cooperation between producer countries and the EU should be stepped up in order to secure favourable trading conditions. The prime objective should be the most functional and open markets possible for all energy types and compliance with WTO rules in the energy sector.

4.2 *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?*

4.2.1 The internal energy market should function as far as possible according to the general rules governing the internal market, including competition rules. Since part of the energy sector is public in nature and relies on transport and distribution networks, special provisions on this are also necessary.

4.2.2 The following aspects should be borne in mind when considering the question of the EU's common energy policy:

- Which aspects need to be dealt with, and which measures taken, at the EU level so as to be more effective than at the national level (subsidiarity)?

- Which of these aspects and measures cannot be handled by the EU under the present distribution of competences?

- Is a specific policy required to ensure a balance between the three pillars of energy policy: supply, competitiveness and environmental requirements?

4.2.3 The ESC's position on the responsibility of national governments and the EU with regard to energy policy is discussed in point 1.6 and 1.7. EU-level action is essential, at least in order to ensure the efficient operation of the internal market and also to manage the EU's external relations, in particular with producer countries and the WTO.

4.2.4 Energy policy in the EU should be linked more closely with other EU policy areas, such as climate, research and agricultural policy.

4.3 *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?*

4.3.1 Energy taxes and state aid are often employed as instruments to achieve commonly agreed objectives such as environmental protection, promoting use of renewable energy resources, etc. To ensure that state aid and taxes do not distort competition between EU countries, efforts are being made to introduce harmonisation. If energy taxation is harmonised just within the EU, this would further weaken competitiveness vis-à-vis other countries, especially the OECD countries.

4.3.2 Energy taxes, if employed properly, can guide choices towards more environment-friendly alternatives if, that is, a choice exists. This ties in with the idea that the external costs of different energy forms should be internalised. However, it is difficult to clearly determine external costs and they tend to vary a great deal from case to case. With a view to reducing carbon dioxide emissions it

might be sensible to introduce a carbon dioxide tax, but the internal market means that this is only possible if fully harmonised.

4.3.3 Taxing energy use will, at least in the long term, result in energy savings. However, taxing consumption also has other consequences. If they are not harmonised internationally they weaken industrial competitiveness and reduce consumption demand in the domestic economy, which affects economic growth. Plans to introduce energy taxes must take these consequences into account and compensate for them as far as possible.

4.3.4 To ensure environmental improvements, the potential revenue from energy taxes should at least be targeted at projects designed to protect the environment.

4.3.5 Energy taxation should have an impact on the environment, but should not have a detrimental effect on competitiveness or in social terms. The 1992 and 1997 proposals did not fulfil these requirements in all respects. The Commission should look into how these conditions could be met.

4.3.6 Often it is possible and good from a macroeconomic point of view to reduce greenhouse gas emissions on the basis of voluntary agreements instead of relying on taxation. Well-crafted agreements are often a more reliable way of achieving the objectives set.

4.4 *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?*

4.4.1 The EU should strive to establish normal and effective business and investment conditions with producer countries, for example by supporting the development of energy market structure and trading conditions. The opportunity for strategic partnership and long-term EU cooperation with certain producer countries should also be considered as an important way of securing EU energy supply.

4.4.2 Cooperation in the energy sector between the EU and Russia should be promoted and Russia should be encouraged to sign the Energy Charter agreement.

4.4.3 An effort should be made to conduct energy trade in euros.

4.5 *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?*

4.5.1 Securing the coal supply by stockpiling reserves in all EU countries or at least at EU level is unnecessary as the EU has its own coal production and the Commission proposes keeping it at the level required to ensure security of supply.

4.5.2 The Member States should be prepared for a problem with the security of supply resulting from increased use of natural gas. The conditions for introducing common stockpiling targets should be considered. Consideration should be given to an appropriate stockpiling system either for gas or for a substitute fuel. It is virtually impossible to create a uniform model as the uses, quantities and sources and geological conditions of natural gas are extremely varied, as are the possible substitutes.

4.5.3 The EU must present a united front in the context of IEA activities.

4.6 *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?*

4.6.1 The improvement, construction and use of energy transport networks should be based first and foremost on the market, the companies operating within it and the degree to which they are self-supporting. The Commission must effectively implement its plan to strengthen transport connections. Rules governing access to and use of networks should be introduced without delay.

4.6.2 If necessary, investment in neighbouring countries and other important regions should be promoted using specific EU funding and EBRD and EIB loans. The Balkans are an important region in this respect.

4.6.3 In considering the possibilities for building new infrastructure for transporting natural gas, no mention has been made of the northern alternative, even though it would provide many additional new benefits and would be consistent with the EU's northern dimension policy. The objective of the northern dimension is, as with Mediterranean cooperation, to narrow regional differences in living standards, promote economic growth and develop multilateral cooperation in order to ensure the balanced development of the region. The main emphasis of northern dimension cooperation is on the environment and energy. The energy sources of the region are extensive and diverse.

4.7 *The development of some renewable energy sources calls for major efforts in terms of Research and Technical Development, investment aid and operational aid. Should co-financing of this aid include a contribution from sectors which have received substantial initial development aid and which are now highly profitable?*

4.7.1 Other sectors are not expected to repay R&D aid. In addition, the level of aid given, the recipients and present profitability vary enormously from country to country and from company to company, making it practically impossible to come up with a fair solution.

4.7.2 Through evolving forms of taxation and in certain support models (guaranteed price and compulsory purchase), business in traditional forms of energy is already helping, at least in part, to fund renewables.

4.7.3 To exploit the potential of renewable forms of energy, support measures are necessary. However common rules should be drawn up as soon as possible for national support measures in order

to ensure an even-handed operational environment for companies and that the single market does not become distorted[4].

4.8 *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?*

4.8.1 In its general comments the Committee has stressed the need to develop and continue to use all forms of energy. This includes nuclear energy and coal.

4.8.2 The problem with nuclear power is its political acceptability in some Member States, which presupposes completely open information about nuclear issues.

4.8.3 The safety of nuclear energy in the EU is of the highest standard and reactor safety is continually improving. The techniques exist for the storage and definitive storage of radioactive waste, and political decisions need to be taken on these. Research must also be continued on the development of possible alternative solutions. The use of nuclear energy and the management of nuclear waste are the responsibility and competence of the Member States. The Union can assist its Member States in the field of research and the exchange of information. In the context of enlargement the EU must ensure that nuclear safety is of a high standard in the future member states. It is also important to promote the transfer of EU countries' high safety expertise to the less developed countries using nuclear power.

4.8.4 Electricity from nuclear power does not produce greenhouse gases. The Commission states that the EU's current nuclear energy production, which accounts for 35% of electricity used, is equivalent in terms of reducing emissions to taking 75 million cars off the roads. Nor does nuclear energy increase external dependence. As the bulk of nuclear energy costs are capital costs, cost trends are in fact very stable and predictable.

4.8.5 Member States take the decisions on the use of nuclear power, and independent decision-making must continue to be respected in the future. However, it is difficult to see how the EU can in future meet the challenges of climate change and ensuring energy supply at reasonable prices without nuclear power continuing to make at least its current contribution to electricity production. Nuclear power may also in the future support the developing hydrogen economy, which requires a secure supply of electricity or natural gas.

4.8.6 The EU's research framework programmes must continue to support research into nuclear power, including in particular fusion, by means of extensive international cooperation. These efforts are important both for developing the technologies of the future and retaining an essential level of know-how.

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4 See ESC opinion on the Proposal for a Directive of the European Parliament and of the Council on the promotion of electricity from renewable energy sources in the internal electricity market (OJ C 387, 20/12/2000)

4.9 *Which policies should permit the European Union to fulfil its obligations 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 CO_2 emissions?*

4.9.1 The EU must continue resolutely its efforts to prevent climate change on the basis of the Kyoto agreement.

4.9.2 The Commission and Member State governments are drawing up action programmes; some countries have already published theirs. As the burden is shared between the Member States, they have responsibility for implementation. Sectoral measures at EU level would hamper responsible and cost-effective action.

4.9.3 The Commission has presented a programme of energy efficiency measures, on which views have been expressed elsewhere and which should form the basis for action. There are plenty of opportunities to develop and adopt new technology while improving the efficiency of energy production and use. The principle must be to produce as much as possible from as little as possible.

4.9.4 How much energy-saving potential can actually be realised when at the same time there is a need to safeguard economic growth and social cohesion?

4.10 *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 and prospects for agricultural production?*

4.10.1 A common EU programme may help to promote the development and use of biofuels for transport as a means of harmonising support and other measures and incorporating this question into the Common Agricultural Policy in an appropriate manner. Responsibility must, however, lie mainly with the Member States.

4.11 *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 industrial installations?*

4.11.1 Energy saving in buildings will probably be a matter for the Member States first and foremost as conditions vary so much. Building standards are probably an effective means of regulation, but there can be no question of uniform, EU-wide standards.

4.11.2 However, consideration should be given to what the EU could do to speed up action by the Member States, e.g. in the field of standardisation and consumption standards. The Committee will discuss this matter in more detail when drafting its opinion on the relevant forthcoming proposal for a directive.

4.12 *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 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?*

4.12.1 The ESC is waiting for the Commission to present its proposals on energy saving in transport in its forthcoming White Paper on transport policy, and will present its views on this matter in its opinion on that subject.

4.12.2 Rail transport needs to be made more efficient through liberalisation, but with due care.

4.12.3 Transport in urban areas is clearly a matter for national or even local administration. The EU could take on an educational and developmental role.

4.13 *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?*

4.13.1 R&D and the 6th Framework Programme are crucial here.

4.13.2 In energy management, no alternative should be excluded from development work.

4.13.3 Appropriate forms of cooperation with national authorities must be found.

5. **Conclusion**

5.1 The ESC welcomes and commends the Commission's Green Paper. It demonstrates that the current policy would pose considerable problems over the next thirty years in terms of ensuring the security of energy supply and reducing carbon dioxide emissions in an enlarged EU.

5.2 The Commission's analysis should however be more global in scope. The planet has limited supplies of fossil fuels, for which the industrialised countries are already competing and for which developing countries will increasingly compete in the future. In this context the risk associated with external dependency is becoming more evident. The timeframe of the study should also be longer, as developments in the energy sector take place slowly and problems will not come to a head until the second half of the century.

5.3 The most important measure for reducing the risks associated with energy supply and other risks is to ensure the most diverse and balanced possible use of different types and forms of energy.

5.4 The Green Paper raises an important question: can the measures envisaged by the Commission, i.e. mainly making energy use more efficient and increasing the use of renewable energy resources, really reverse the trend of growing external dependence and increasing greenhouse gas emissions within the timeframe in question and without compromising economic and employment objectives?

5.5 To respond to these major challenges, the Commission must develop the common framework and set EU-wide indicative targets, starting from the principle that Member States retain the right to take energy policy decisions independently, particularly with regard to forms of energy production.

5.6 The ESC considers it reasonable to add the following to the questions posed by the Commission: what action could the EU initiate to support third countries' efforts to achieve sustainable development?

5.7 The Committee's main answers to the questions posed by the Commission are the following:

5.7.1 The EU cannot avoid increasing its dependence on external energy sources, but the risks can and should be kept low.

5.7.2 The objective of the EU's external relations must be to safeguard the opportunities for companies to conduct business in the energy sector freely and under reciprocal conditions. Long-term relations with producer countries should be developed.

5.7.3 Energy policy must respect the principle of subsidiarity. EU-level action is essential, at least in order to ensure the efficient operation of the internal market and also to manage the EU's external relations, in particular with producer countries and the WTO.

5.7.4 Energy taxation must have a clear impact on management of the environment, however efforts should be made to avoid any negative consequences in terms of (among other things) competitiveness and social considerations.

5.7.5 Securing the coal supply by stockpiling reserves is not necessary in all countries. In order to secure supplies of natural gas, the use of which is increasing, Member States should take steps according to their particular needs. The requirements for introducing common stockpiling targets must be clarified.

5.7.6 The improvement, construction and use of energy transport networks should be based on the market. The EU must support the strengthening of transport connections and establish common ground rules. If necessary, investment in networks with neighbouring countries and other important regions, including Northern Russia, should be promoted using specific EU funding.

5.7.7 To exploit the potential of renewable forms of energy, support measures are necessary and common rules should be drawn up as soon as possible. Traditional forms of energy already contribute to this funding even though there are no objective reasons or precedents for this.

5.7.8 There are problems connected to nuclear power, but it also has clear benefits. Member States take the decisions on the use of nuclear power. However, it is difficult to see how the EU can in future meet the challenges of climate change and ensure energy supply at reasonable prices without nuclear power continuing to make at least its current contribution to electricity generation.

5.7.9 There are plenty of opportunities to develop and adopt new technology to improve the efficiency of energy production and use.

5.7.10 With regard to the question of transport, the ESC is waiting for the Commission's White Paper before taking a position on these issues.

5.7.11 Building standards are an effective instrument with regard to saving energy in buildings; however there can be no question of uniform, EU-wide standards because climatic and other conditions vary so much. The Committee will discuss this matter in more detail when drafting its opinion on the relevant forthcoming proposal for a directive.

5.7.12 Research and development activities and the 6th R&D Framework Programme are of key importance in preparing for future energy options and sustainable development.

Brussels, 30 May 2001.

The President of the Economic and Social Committee	The Secretary-General of the Economic and Social Committee
Göke Frerichs	**Patrick Venturini**