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COMMISSION STAFF WORKING DOCUMENT

Summary report on the analysis of the debate on the green paper "A European Strategy for Sustainable, Competitive and Secure Energy"

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On 8 March, 2006, the European Commission adopted a green paper entitled *"A European Strategy for Sustainable, Competitive and Secure Energy"*[1]. The green paper responded to the request from heads of state and government at Hampton Court in October 2005 for the development of a common approach to energy policy. The green paper was presented on 23-24 March 2006 to the European Council, which gave the Commission a mandate to take work forward towards a coherent energy policy for the EU.

The green paper confirmed the three energy policy objectives of the EU: sustainability, security of supply and competitiveness. It invited comments on six specific priority areas:

- - Complete the internal electricity and gas markets,
- - Security of supply and solidarity among Member States,
- - Sustainable, efficient and diverse energy mix,
- - Tackling climate change,
- - A strategic energy technology plan,
- - A coherent external energy policy.

It included over 30 concrete suggestions for possible actions. Above all, it sought to set out the parameters for a future common energy policy for Europe.

This document summarises the responses to the green paper. 1680 responses were received (1516 via the questionnaire and 164 additional written comments), of which 1287 came from individual members of the public. 18 Member States and Romania responded, as did the European Parliament, the European Economic and Social Committee and the Committee of the Regions. The full text of the analysis is available on the web page[2] of the green paper.

A common European energy policy

Throughout the consultation, there was almost universal support for the development of a common European energy policy. There was also general support for the existing objectives. Among the three objectives, that of sustainability was given significantly

[1] COM(2006)105 final

[2] http://ec.europa.eu/energy/green-paper-energy/index_en.htm ...

more importance than security of supply and competitiveness. The importance of sustainability was also considered to be by far the most important principle for policy initiatives. There were many calls for the new policy to be better centred on individual citizens. Generally, the Commission's view that business as usual is not an option was widely endorsed. The perception that EU energy policy should be closely tied into EU policies in other areas, notably economic and trade policies, was confirmed.

A stable policy framework

In terms of the policy framework, the internal market was broadly accepted, although there was some criticism that the EU had done too little to sell its benefits for individuals and to open up the market for small and renewable energy providers. There was also considerable concern about the ability of the market to deliver on policy objectives and investments on its own. There was general support for the concepts of a European grid, greater third party access and transparency of information. Regional markets were welcomed, but mainly as a stepping stone to a fully integrated European market. A European regulator was generally not considered necessary, providing better coordination could be assured at the European level. There is a broad consensus that more effective unbundling is necessary to complete the internal electricity and gas markets in Europe. Regulators and industrial consumers request further legislation, including ownership unbundling, while the main energy incumbents reject this. An EU role in selecting priority projects was generally considered necessary only when the market failed to deliver and a strategic need had been identified. What the EU had failed to address adequately was the issue of energy poverty, which could become a more pressing issue if higher global prices for fuel, higher carbon prices or costly investment in new infrastructure led to higher energy prices.

The high priority given to tackling climate change was fully endorsed. There was a broad call for a longer term and more inclusive framework for emissions trading. There was some concern that the existing scheme was not effective enough, or that carbon prices were too low to stimulate change. Some concern was expressed about the interplay between the EU emissions trading scheme and the single market, particularly as regards profits to incumbents from carbon permits. It was frequently pointed out that the EU should not go it alone on climate change and needed to work hard to secure greater commitment from other major energy users.

EU solidarity

Generally, closer political collaboration and full implementation of legislation were considered to be the most important aspects of solidarity. However, the EU could build up a stronger role in the exchange of information (including support for the proposed European energy supply observatory), network security and the establishment of mechanisms to anticipate and respond to threats to energy supply.

A strategic energy benchmark

The general preference was for a strategic energy benchmark based on lowering CO_2 emissions. This was considered to be the most effective way to stimulate greater efficiencies in supply and demand, as well as the development of technologies for the future. However, it was also pointed out that the EU had not yet delivered on its Kyoto commitments, which undermined its credibility in this area. There was also considerable

support for a longer term target for renewable energy as a share of the EU energy mix, with suggestions around the range of 20% by 2020 to 50% and more by 2040-2050.

Policy priorities

Energy efficiency was considered to be the most important and most effective policy instrument to achieve energy policy goals. There was some disappointment that more was not being done to save energy, with calls for action in all areas of consumption – building, industry, services and transport. Transport was repeatedly singled out as a case requiring stronger intervention, given also its link to oil use and import dependence. The proposal for an international initiative on energy efficiency was also welcomed, on the grounds that rising demand and declining reserves are a global problem.

Encouraging the wider use of renewable energy sources was also a favoured instrument to tackle climate change, protect the environment, support technology development and job creation and improve fuel diversity. A common argument was that the EU should prepare the path towards a post-oil era which other economies would eventually be forced to follow. There were differing views as to how a higher share of renewable energy in the EU energy mix could be achieved. The use of compulsory targets was widely defended, as was the internalisation of external costs. Fairer subsidy schemes, and more equal competition between renewable energy/technology suppliers and their conventional counterparts were also called for, notably within the internal market. It was acknowledged that some renewable sectors needed more help and longer term subsidies than others, but that for all renewable sectors a more transparent, harmonised and secure investment framework was required.

The third key instrument was energy technology development. For some, this should be the most important aspect of the new policy. For others, the challenge was to translate research into commercial products. Others argued that new technologies would not achieve climate commitments on their own and should complement necessary changes in individual behaviour. A clear consensus emerged over the importance of a stable long term framework for EU-level collaboration, not least to avoid duplication and to make better use of existing funds. The concept of a strategic European energy technology plan received broad support. Solar energy was considered the most interesting technology for EU collaboration, followed by wind, second generation biofuels, tidal/wave energy, hydrogen, fuel cells and smart grids. Support for carbon capture and sequestration was high among conventional power suppliers and the coal industry, but contributors from other sectors drew attention to its risks. The value of research to exploit indigenous hydrocarbon reserves was highlighted by some. The need for the EU to retain a lead in nuclear technologies was also underlined.

Greater diversification of the energy mix was seen as an important means to achieve political ends. As well as increasing the share of energy from a range of renewable sources, this was understood to include a greater variety of sources for fossil fuels and electricity. There was a broad call for a greater variety of suppliers to the EU, with investment in new supply routes, including oil and gas pipelines and liquefied natural gas terminals. While views on nuclear power varied widely, it was generally agreed that EU efforts to solve the problems of safety, waste management and disposal and decommissioning were to be welcomed.

An external energy policy

It was broadly thought that the EU should build up its profile in international energy negotiations, notably by developing an external energy policy with a common voice for the whole EU. There were also calls to incorporate energy policy objectives into all areas of the EU's external relations, including trade policy.

The concept of EU energy dialogues with major producers was generally endorsed, subject to clarity between the relative roles of the EU and Member States. These dialogues should not only deal with supply issues, but also with environmental, climate, social and trade issues. The need for a new initiative with energy consuming nations was also emphasised

The important role of Russia in both oil and gas supplies was stressed. The proposal to seek a swift ratification of the Energy Charter Treaty was strongly supported.

There was also robust support for proposals to develop new partnerships with new suppliers, including in Africa, the Caspian basin and Latin America. However, the need to combine this with good governance was considered essential.

There was also general support for the EU's energy initiatives with its neighbours, notably the Energy Community Treaty and its possible extension, as well as closer energy relations with key transit countries, including Turkey and Ukraine.

ANNEXES TO COMMISSION STAFF WORKING DOCUMENT
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ANNEX 1

1. THE PROCESS AND RESULTS OF THE GREEN PAPER CONSULTATIONS

The public consultation on the energy green paper lasted from 24 March 2006 until 24 September 2006. The consultation process was developed in parallel to the discussion with the other institutions and public events organised during this period.

The consultation process on the follow-up of the Green Paper and on the Strategic EU Energy Review included consultations with Member States, the European Council, the European Parliament, citizens, stakeholders, various stakeholder groups, and representatives of civil society such as labour market players, non-governmental organisations and consumer organisations. Discussions took place in various forums and a web page was created on the Europa web site, including an open questionnaire and mail box for technical questions. This created a basis for the Commission to develop initiatives for the future European energy policy, including a 2007 strategic EU energy review.

A number of events were organised to promote the consultation process (see calendar in annex 2). These events included local events organised by the Commission representations in Member States and DG Press and Communication. They took place with the participation of senior representatives from the Commission. Minutes and outcomes of all events, where the green paper and its follow-up actions were discussed, were taken into consideration as part of this process.

1.1. Online questionnaire

An **online questionnaire** related to the green paper "A European Strategy towards sustainable, competitive and secure energy" was published on 31 March 2006 as part of the public consultation. It was made available in all Community languages in April.

During the consultation period Commission received 1516 responses via questionnaire (1282 from citizens and 234 from various organisations/stakeholders). 85% of respondents were citizens giving their personal view on the energy situation in Europe. 30% of respondents were people between the ages of 30 and 39, followed by 27% of people under the age of 30. Most of the responses came from Germany, France and the United Kingdom. There were only 97 responses from Member States that joined the European Union on 1 May 2004.

The urgent need for a European energy policy and the importance of energy issues in the Lisbon process are clear. Nearly 80% of all respondents would like to have a new, common energy policy for Europe.

A clear priority message is to develop a new energy policy for Europe with the foundation of the three main objectives mentioned in the green paper. The balance between national and EU energy policies should be delivered. An energy policy for

Europe should link with other important Community policies, such as transport, environment, fiscal and sustainable development. It should include long-term policy with targets.

The Green Paper proposed a balance between the three main objectives of energy policy. The possibility of multiple choices for the questions dealing with this issue has shown the different weights put on each of the objectives. Sustainability is clearly preferred, followed by security of supply and competitiveness. The most highlighted measures were the development of harmonised grid access conditions through a European grid code, the finalisation of the unbundling process and increasing energy regulation at European level. Market transparency and more cooperation between Member States on the internal market were highlighted as the most important elements.

Attracting investments in the energy sector, smart electricity networks[3] and solidarity mechanisms were identified as the most useful tools for increasing security of supply.

The further development of renewable energy and energy efficiency technologies was regarded as essential. The approach outlined throughout the questionnaire was supported by more than 50-70% of respondents. The role of such technologies in relations with other countries was seen as essential.

To set long-term targets and action plans for renewable energy sources is seen as the best way for the further development of renewable energy sources in the EU. The EU should increase the incentives at EU level for renewables, and more investment is needed from the Member States as well.

Renewable energy should be better integrated into the EU Emission Trading Scheme. The EU Emission Trading Scheme is taken into account quite often, especially in terms of widening the scheme to other main polluting sectors, such as transport or buildings, and should be extended beyond EU.

The general view on energy technology development was that it should be innovative, should follow a strategic approach and, in particular, has to be backed by a strategic EU energy technology action plan. Respondents agreed that strong emphasis for further development should be put on renewable energy technologies (solar, wind, biomass, and tidal/wave).

There is a clear message that the EU should incorporate the sustainable utilisation of energy sources as part of the EU's external relations and its external energy policy. It should include also support for an international agreement on energy efficiency with all main consumers countries at least. Promotion of new energy technologies to developing countries and integration of greenhouse gas emission targets worldwide are seen as essential as well. The partnerships and energy dialogues with neighbouring, producing and consuming countries are also important activities to steer at EU level.

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[3] The key to smart energy is information technology's capacity to optimize grid operations. Electrical devices will be operated by their own intelligent software that communicate information on operating status and needs to the network, collect information on prices and grid conditions, and respond in ways that most benefit their owners and the grid.

More information and the complete results from the questionnaire are given in Annex 4.

1.2. Written contributions

The Commission received, in addition to the questionnaire responses, a total of 164 **written contributions** to the debate. There were 18 contributions from Member States and Romania, comments from 18 public authorities, comments from 22 non-governmental organisations, comments from 91 trade associations and individual companies, comments from 10 intergovernmental organisations and comments from 5 individuals.

1.3. Public hearing

1.3.1. Public hearing of the European Parliament on the green paper

On 12 September 2006, a public hearing on the EU's energy green paper took place at the European Parliament in Brussels. The hearing was chaired by MEP Giles Chichester (EPP,UK), the chairman of the ITRE committee, and concluded by the rapporteur Eluned Morgan (ESP,UK). The hearing consisted of two panel debates

- Panel 1 What needs to change to encourage 1 trillion € of investment in Europe's single market in energy?

- Panel 2 What is missing from the Energy Green Paper?

The general conclusions from the debate were as follows.

The common energy policy has to serve both public policy aims and private sector interests (consumers, investors, producers, energy retailers, SMEs, etc). Member States have much to gain from a common policy. Energy policy is a key driver of security, economic and foreign policies. Energy policy must be innovative and forward looking, not the common denominator of what already exists. The time frame should be 15 to 20 years at least, bearing in mind investment lead times.

- A long term, clear, stable and predictable EU framework is needed – for the single market, the EU emission trading scheme (EU ETS) and support to renewable energy. Energy and climate aims should routinely be factored into other policy decisions. Energy efficiency and renewables should be the mainstays of the new policy, within a context of stable and well-functioning markets. Industry would welcome more harmonisation of support schemes for renewables. The further use of "white certificates" deserves consideration.

There were some strong requests expressed from non-governmental organisations (environmental and consumer protection groups) such as a 35% target for the use of renewable energy sources by 2020; the facilitation of 25% of heating and cooling from renewable energy sources by 2020; the proposal that all CO_2 permits could be auctioned and the proposal that the EU needs a powerful demand-side body to protect the interests of consumers.

The current situation is a cause for serious concern, notably the lack of clarity, unstable prices, short terms in investment, trends towards oligopolies, and the emergence of energy as a security threat to geopolitical security and climate change.

European market transparency, access to information and data provision must be improved. A single EU market can only work with EU measures to deal with cross-border issues (competition, trade, regulation, mediation issues). There is no need for a new agency or institution; rather, there should be better managed coordination.

Transport policy must be a key component. The oil sector is still key to energy strategy – oil security is most under threat in the short term, increasing dependence. Oil is almost the sole fuel for the transport sector; oil use is causing climate change. Technological development is of paramount importance.

A strong social element is indispensable – with clear rights and responsibilities for consumers and energy sector employees. Individuals need to be drawn in – to understand the link between individual behaviour and the wider energy situation and to be persuaded that changes in behaviour and buying habits are in their own interests.

A single EU voice in external affairs is desirable. An external energy policy must not be prescriptive. The EU should lead by example.

The nuclear issue is a diversion from the real debate as nuclear energy represents around 7% of all energy used. Economics are the main stumbling block, complicated by differing views about real long term costs.

1.3.2. Public hearing on the strategic EU energy review

A public hearing on the strategic EU energy review was convened by the Commission on 22 September 2006. More than 450 participants took part in the meeting. Commissioner **Piebalgs** opened the debate by highlighting the energy challenges which the EU and Member States have been facing recently. To solve them, he presented the Community actions of 2006 and those foreseen for January 2007. The Commissioner raised two main questions, one for each panel.

*Panel 1: The EU's energy mix and how to achieve the objectives of sustainability, competitiveness and security of supply.***(What should Europe's essential energy vision be in the coming decades in order to achieve our three core objectives of sustainability, competitiveness and security of supply, and what do we need to do to achieve it?)**

The following arguments came to the fore in this session.

The subsidiarity principle in energy policy - the most effective balance between responsibilities at EU level and at the level of Member States must be found. Local circumstances and energy sources vary widely within the Member States. Every Member State should take decisions on its own energy mix. EU energy policy has to define innovative solutions and be more focussed on the social dialogue.

The achievement of the single market would be an essential cornerstone of energy policy. The current model of the EU energy market is not working properly. Some Member States have failed to implement directives. Full ownership unbundling, more cross-border exchanges, more physical interconnections, and more power and independency for the regulators are not fully implemented. New legislation could help to improve the situation.

Tackling climate change requires immediate EU action. Energy efficiency is the most effective tool without any real drawback. The development of renewables would improve

security through indigenous supply and competitiveness in a high-tech area, but needs large investments in order to be competitive.

The EU emission trading scheme is a key tool and a market-compliant way to address climate change. The revision of the EU ETS should add heavy energy user sectors including aviation and freight transport. Future realistic targets for carbon emission might be useful as technology developers and the market would respond accordingly.

The role of nuclear energy has been debated and this debate should continue. Nuclear energy does not produce any significant carbon emissions. It is competitive, even without the carbon tax, and it reduces risks of energy dependency. However, investments in this area would be possible only in a stable and long term foreseeable policy framework.

There is an international dimension in the energy mix. These aspects should be addressed at global level. The EU should speak with one voice in the international arena, especially with energy suppliers. Bilateral agreements with suppliers would be a short-sight strategy, but very harmful in the long term. Member States should create a common front in negotiating with Russia.

*Panel 2: A competitive and secure European internal energy market for the benefit of the EU's citizens and industry***. (What needs to be done to ensure that the internal electricity and gas markets rapidly develop to guarantee that they work to benefit EU citizens to their fullest potential, as consumers and as employees of energy consuming companies?)**

There was general agreement that the development of the internal electricity and gas markets was entering an important phase. Although competition has been partially introduced with some limited success, it was also the case that the largest companies were not facing enough of a challenge either through competition between themselves or from new entrants. This, when combined with higher primary fuel prices on global markets and volatile market conditions, was leading to a difficult situation for customers. A framework that delivers stable and competitive prices for consumers is needed, as well as correct incentives for new investment. Electricity and gas markets must develop in tandem.

There was also agreement that new entrants and cross-border entry to national markets are key requirements for competition. New companies must be assured that network operators are 100% neutral in order to invest. Unbundling arrangements must deliver on this requirement for both electricity and gas in order for competition to function, although some participants noted the cost of this for small companies.

It was argued that both the functioning of system operators and the regulatory arrangements must be aimed at the objective of an integrated European market. Above all, political will is required to ensure competition is developed to its full potential in the EU as a whole. The need for rapid action was highlighted in the discussion by some participants.

Commissioner Piebalgs concluded the debate by acknowledging the scope for improvements, some of which could require Community legislation. He confirmed the

importance of the role of energy regulators, the need for clear unbundling and co-operation between networks and the necessity for transparency.

1.4. Fora of stakeholders

The Commission convenes **five energy fora of stakeholders** on a regular basis. During the consultation period, the green paper was discussed extensively within these fora. The following section summarises the viewpoints emerging from these fora.

1.4.1. European Forum of Energy and Transport

The forum composed of high level representatives from a large range of sectors and activities in the fields of energy and transport highlighted the need for a properly functioning open and competitive market. Industrial competitiveness requires a well designed, stable and predictable framework. Liberalised and competitive markets could help security of supply by sending right and timely investment signals under certain conditions and regulations. There is a need to streamline the authorisation procedures in order to encourage investments. The creation of a European Centre for Energy Networks, and consideration of a European energy regulator includes not only market competition aspects but also sustainable energy market development.

Short-, mid- and long term EU commitments are needed to fight climate change. Short-, mid- and long term targets are needed to develop renewable energy sources and energy efficiency and to stimulate the competitiveness of renewable energy sources by removing barriers. The importance of new renewable energy and the development of energy efficiency technologies with research and development programmes was underlined. The planned renewable energy road map should give consideration to targets and objectives beyond 2010. Energy efficiency is the swiftest implemented, most cost-effective and most publicly acceptable policy instrument.

There is a need for a coherent external energy policy with the aim of ensuring external energy supplies and tackling common global problems. The EU should develop partnership and a level playing field with producing countries and involve all relevant stakeholders in the discussion of an external energy policy. The international energy dialogue should be based on a long-term perspective and the principles of reciprocity and fairness.

There is a need for a diversified energy mix including all existing and future technologies and fuel options, with an emphasis on indigenous renewable energy sources to reduce import dependence and fuel price risk and to tackle climate change and depletion of resources in the EU.

A culture of security, safety and greater transparency of all costs is essential in the field of nuclear power. Opinions on nuclear energy are divergent on whether decisions are taken at EU or Member State levels.

No reference in the green paper is made to the social dimension and its interaction with the sustainability, competitiveness and security of supply objectives. The social dimension should take into account not only the creation and preservation of jobs but

also the role of society in accepting and developing the common strategy for energy policy.

1.4.2. Sustainable Energy Forum (Amsterdam), 25 and 26 April 2006

Around 70 high level representatives from Member States, the European Parliament, the European Commission, industry and other stakeholders in the fields of renewable energy sources and energy efficiency took part in the second sustainable energy forum. The discussions focused on future actions at EU level in the fields of energy efficiency and renewable energy sources.

All participants agreed that more should be done to increase the use of renewable energy sources in heating and cooling. A possible Directive, well integrated with other existing EU Directives, should be the solution. The role of the European Union in the renewables area is recognised. Without a push from the European level, the market does not seek to exploit the existing potential. Some form of targets is necessary to allow the development of a coherent strategy and give regulatory stability. EU measures, such as benchmarking and exchange of best practices, are useful tools.

While actions at European level are necessary to provide guidance and stability to the market, the representative of Eurochambers and the representative of the Council of European Energy Regulators strongly disagreed with such an approach. They stressed the possible market distortions and overcompensation risks attached to a EU regulatory measure.

1.4.3. Gas Regulatory Forum (Madrid), 18 and 19 May 2006

The Forum underlined the importance of the green paper and presented its views on a number of aspects with relevance for security of gas supply and the proper functioning of the internal market for gas.

The participants, which are national regulatory authorities, Member States, the European Commission, transmission system operators, gas suppliers and traders, consumers, network users, and gas exchanges, stressed the need for consolidating rapid progress following the implementation of Directive 2003/55/EC on a broad range of issues relating to the creation and operation of a fully operational and integrated internal gas market. The forum also highlighted the importance of the Regulation on conditions for access to the natural gas transmission networks and underlined the need of its full, unrestricted and consistent application from 1 July 2006.

1.4.4. Electricity Regulatory Forum (Florence), 7 and 8 September 2006

The main issues considered to be the most important for further action are the role and powers of regulators at national and EU level, the current organisation and modus operandi of transmission and distribution system operators at national and EU level, dealing with the market dominance, and issues relating to transparency. Possible options for future measures include a wide range of approaches.

The ongoing distortions arising from allocation of emission certificates and non-harmonised rules on decommissioning funds, as well as market dominance, were highlighted. These problems need to be tackled urgently if the market model is not to

fail. The Commission, governments and regulators should consult more regularly with members of both national and EU parliaments.

Political commitment by Member States is vital to the process of introducing competition with a recognition that further action is needed to ensure the removal of all distortions and to realise important investments, including those on the priority interconnection plan. There is a need for a similar level of real competition in both the electricity and the natural gas sector. The importance of unambiguous and effective unbundling of transmission system operators is stressed and the need to develop further co-operation between transmission system operators (TSOs) across a wide range of issues, fully supported by the national and European regulatory and financial framework.

The participants, which are national regulatory authorities, Member States, European Commission, transmission system operators, electricity traders, consumers, network users, and power exchanges, advocated a high level of consistency of energy regulation by the European Union and across Member States, the removal of all regulatory gaps and cross border enforcement of common rules as far as possible through the strengthening and further development of existing structures and initiatives, with new bodies only to be considered where these are demonstrated to deliver real benefits.

The energy-intensive industries stressed the need for access to energy at competitive prices on a long term basis and the requirement of effective unbundling of the TSOs from generation and distribution. This should imply the gradual reduction of the number of TSOs, leading to market integration, with the objective of a single wholesale price. Participants also argued for homogeneous balancing power regimes within Member States, involving both the supply and the demand side. Urgent correction of the EU ETS mechanism is necessary which is impacting excessively on power prices.

1.4.5. Fossil Fuels Forum (Berlin), 9 October 2006

The Fossil Fuel Forum is a platform for structured dialogue between the Commission services and the stakeholder community from the European energy sector, including corporations, industry associations, Member State administrations and European civil society. It recognised the need for a European energy policy and welcomed the green paper as a valuable first step.

Coal plays an important part and it is in Europe's interest that it remains an integral part of the European energy mix. However, the environmental challenges posed by coal use have to continue to be addressed both in view of Europe's obligations to meet targets in greenhouse gas (GHG) reductions and in view of the fact that coal is likely to remain a dominant fuel in many parts of the world. The challenge of climate change is a global one.

Europe therefore needs to pursue policies that will facilitate an early development and commercial take-up of technological solutions, integrating the achievements of clean coal technologies with the processes for capture and storage of CO_2 (CCS), facilitating demonstration and subsequent penetration of new technologies and enabling low/zero-emission power generation from coal under competitive conditions.

All newly built coal-fired power plants should anticipate the arrival of new technologies and be built as "capture-ready", allowing for retrofitting with CCS at later stages. By 2015, joint efforts need to result in a number of large-scale demonstration projects in Europe and in third countries. Once low/zero-emission technologies are commercially feasible, as expected by 2020, no new power plants should be built without CCS elements.

Oil is a crucial fuel and is likely to be part of the energy mix for the foreseeable future. However, an intelligent approach to oil production and consumption is necessary to guarantee long-term stability and its availability. Europe needs to look intensively at the possibilities of efficient and rational patterns of oil consumption and ways of maximizing the potential of existing oil resources. The continuation of dialogues with other important consumers and with producing countries will be crucial.

The Forum stressed the importance of a further improved and stable regulatory framework and of a diversified gas supply portfolio, as well as the need for the European Union to develop the capacity to speak with one voice vis-à-vis major gas supplying countries, especially Russia, Norway, and Algeria. It also acknowledged the importance of infrastructure development beyond pipelines alone - having sufficient gas storage capacity and liquefied natural gas (LNG) terminals is, for example, a key issue to ensure the security of gas supply.

1.5. High Level Group on Competitiveness, Energy and the Environment

According to the High Level Group, which members includes the Commissioners for Enterprise and Industry, Competition, Energy and the Environment, some EU Ministers, industry, environmental NGOs, consumers, trade unions and regulators European and national competition authorities must create a more competitive environment for electricity and gas supply by actively pursuing violations of competition law. The objective should be to increase the range of offers to electricity and gas users in terms of price and contract structures, in particular recognising base-load consumption, and aiming for more predictable prices. A key area for action is the need to establish minimum rules on transparency and disclosure.

To improve the implementation of the current regulatory framework, Member States must ensure immediate and full implementation of existing legislation with a specific focus on unbundling provisions and the removal of regulated tariffs distorting competition. It is of fundamental importance that the regional markets are understood to represent a practical staging post on the journey towards a single European energy market. There is a need to enhance the role of national regulatory authorities, including at EU cross border level. Co-ordination among national transmission system operators should also be improved under the supervision of independent regulators. Investment in interconnections should be coordinated. For gas, a more effective system of gas transmission is needed at European level.

In order to reduce uncertainty, the EU and Member States should provide a long term vision related to the regulatory environment, key environmental issues and energy mix choices.

A list of priorities for energy efficiency measures contributing to the EU's energy saving target of 20 per cent by 2020, according to the relative importance of the energy savings and the duration of the payback periods, should be established at EU level. The relative cost-effectiveness of measures should be based on life cycle analysis. There is a need to have a better perception of the risks and a better assessment of the payback time of investments. Demand for heating and cooling needs to be addressed. In particular, the existing Directive on cogeneration (combined heat and power or CHP) should be fully implemented and its potential fully used. Energy services should be promoted. Energy using products should be subject to dynamically improving efficiency standards. Predictability in the evolution of these standards needs to be ensured.

The choice of policy instruments should reflect sector-specific features. Problems in the large non-energy intensive sectors and the public sector include lack of awareness and poor motivation, complexity of contracts and the difficulty of measuring savings. The efficiency of different transport modes should be encouraged and improved where possible and efforts should be made to improve accessibility to public transport.

The High Level Group proposes to improve the current system of EU ETS. This should be done immediately, in the short term and within the timelines and procedures foreseen by the ETS Directive in order to ensure that the EU has a cost-effective instrument at its disposal for contributing to the fight against climate change. This instrument should, therefore, give efficient incentives for investment in low carbon technologies, have limited impact on the competitiveness of energy intensive industries competing on global markets and should be an attractive "docking station" for schemes in other big emitting countries after 2012.

Consideration should be given to the broader context of international action against climate change to advance the international climate change policy framework post-2012. The EU should intensify discussions with big emitters with a view to identifying how the EU ETS can be linked up with compatible systems emerging in other countries, and further facilitate the use of credits from the Kyoto Protocol's project-based mechanisms within the EU ETS.

The High Level Group adopted its second report during its meeting on 30 October 2006. The report stresses the need to establish a comprehensive EU energy strategy. It recommends that the EU sets itself a CO2 reduction target for the energy sector for the longer term, with concrete intermediate targets. It also recommends improvement of the Emissions Trading Scheme. It also stresses the need to engage emitters world wide in reduction strategies and the need to devote a sizeable amount of RTD towards low carbon technologies, for instance Carbon Capture and Storage.

1.6. Council and Member States

18 Members States sent a specific contribution: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, France, Germany, Hungary, Ireland, Lithuania, Luxemburg, Netherlands, Poland, Slovenia, Spain, Sweden and United Kingdom. Benelux, as such, and Romania, a future Member State, contributed as well.

There is clearly a broad support on the necessity to develop a European energy policy relying upon the three main pillars described in the Green Paper: competitiveness,

sustainability and security of supply. However, several contributions stress that this energy policy should not interfere with Member States decisions regarding the make up of their energy mix. The Commission proposal to publish regularly a Strategic EU Energy Review is welcome. But clearly the proposals concerning new structures, such as the European Regulator, do not receive large support.

1.6.1. Internal Market

There is a general agreement that an effective and transparent internal European Market for energy is necessary to encourage competitiveness and to provide security of supply. Whilst many contributors implicitly recognize that currently the situation is not satisfactory, there is little support for new legislation, many Member States advocating a full implementation of the existing legal framework before considering any possible further legislation. This should be understood as a clear invitation to the Commission to proceed firmly with infringement procedures. More cooperation and soft laws are generally preferred.

The setting up of a European Regulator is generally not welcome. However, there is a general interest to increase cooperation between the national regulators. The work carried out by ERGEG is welcome.

The priority interconnection plan receives general support from Member States as a necessary step to go further into the market integration. Estonia, Lithuania and Ireland, as "energy Islands" are particularly supportive. To be noted that Germany considers that this plan should only be a recommendation.

The necessity to invest in new generation capacities is generally shared. In this regard the importance to ensure a stable, long term and transparent regulatory framework is underlined by several contributors.

Denmark, United Kingdom and Netherlands consider that unbundling is a fundamental element. France and Germany, in contrast, are clearly against the ownership unbundling, saying that the present provisions are sufficient for the regulators to enforce the necessary unbundling.

1.6.2. Security of supply

There is no strong support for the setting up of an independent European Energy Supply Observatory. Member States consider that the monitoring could take place within the existing Community mechanisms and should not duplicate International Energy Agency (IEA) work. To be noted that Sweden would have no objection to establish a European energy supply monitoring centre within the Commission's internal organisation.

There is no general support among Member States to review the effectiveness of the Electricity and gas security of supply. The general trend is to fully implement and evaluate the present legislation, and if proven insufficient further measures could be considered.

1.6.3. Energy Mix

Member States generally believe that the make-up of a nation's energy mix is a matter of subsidiarity. However, United Kingdom does support the development of an overall strategic objective based on an EU wide energy mix benchmarking assessment. Netherlands, in contrast, do not see any benefits in the general European strategic objective.

As far as the energy sources are concerned the main comments concern nuclear where the need to get an open and transparent debate on nuclear energy is emphasised.

It is interesting to note that Czech Republic, Germany and Poland strongly support the use of sustainable coal.

To be noted that Sweden considers that the idea of setting a minimum proportion of the EU's total energy production to be obtained from secure, low carbon energy sources seems dubious. It would instead advocate an overall objective of reducing the EU's dependence on external fossil fuels. Estonia does not support setting the share of energy sources producing carbon dioxide as a binding objective.

1.6.4. Sustainability

The comments on the EU Emission Trading Scheme (ETS) are quite supportive. There is a general trend to include other activities in the ETS, namely transports, and other greenhouse gases.

There is a full support on the importance of energy efficiency and on the necessity to go further. Sweden would like to see further commitments from the European Council on energy efficiency and renewable energy sources, especially in the field of bio-energy. Netherlands and Denmark suggest developing a European approach as a result of the implementation of the framework directive for eco design. The action plan on energy efficiency is welcome. United Kingdom considers, however, that this action plan should not contain binding targets. Denmark, in contrast, supports a system with binding targets and makes concrete proposals among which, the adoption of a binding energy savings target amounting to 1,15% annually, including transport, for the EU as a whole and for Member States individually up to 2017. France is quite supportive of an international agreement on energy efficiency.

Generally Member States supports an intensification of efforts to promote the renewable energy sources. The renewable energy road map is welcome. The question of new binding targets is debated.

1.6.5. Innovations

The importance of research in the energy sector is shared by all the Member States. There is a full support on the EU Strategic Energy Technology Plan.

Carbon Capture and Storage is mentioned as a high priority for Germany and France. Czech Republic and Poland supports the development of clean coal technologies.

1.6.6. External Energy Policy

There is a general agreement on the necessity to develop a coherent European external policy to enable the EU to play a more effective international role in tackling common problems with energy partners worldwide. To be noted that France considers that the Council should be systematically involved when the strengthening of cooperation could have an impact on the energy policy or on the external relations of the European Union. It is repeating the proposal made by its Prime Minister to create a special representative for energy (next to Mr Solana and Mr Piebalgs) to have a single voice vis-à-vis third countries. Estonia considers that the Strategic EU Energy Review must contain a critical analysis of Member State's energy dependence on third countries and stresses that the European Union's common foreign and security policy and the energy policy should be better integrated.

Several Member States insist, concerning the EU-Russia dialogue, on the necessity to pursue the dialogue after the ratification by Russia of the Energy Charter Treaty and conclusion of negotiations of the Transit Protocol. United Kingdom considers that a new initiative should be within the framework of any successor to the Partnership agreement.

Algeria comes for several Member States as a very important partner to work with. North Africa, the Caspian and Black Sea are mentioned as well by several Member States. The importance of a dialogue with large and emerging consumers as a key element of an external energy policy is also mentioned by several member States.

New monitoring mechanisms to deal with emergencies do not receive support. Member States prefer to improve the already existing mechanisms such as the IEA one on oil.

The development of a European Energy Community receives a significant support.

1.6.7. Group of the Directors General for Energy

On 19 September a meeting of Directors General for energy of the 25 Member States and Bulgaria and Romania took place in Brussels to discuss views on the various energy issues raised in the Green Paper.
Director Generals from the United Kingdom and Lithuania presented the challenges (growing concerns on reliability of energy sources, on climate change), the needs (efficiency, reliability, clean & diverse supply), the tools (competitive markets, market mechanisms for development of renewable energy sources) and specific measures (information of customers, the removal of obstacles to nuclear energy).

The creation of a real internal energy market is a huge challenge. For the Baltic states, remaining an “energy island” dependent on a single major energy supplier, it is important to complete the EU internal energy market and to develop a regional energy market with sufficient interconnections with other Member States.

A significant number of speakers considered that their country remains an “energy island”. Better interconnections between Member States and new transport infrastructures are needed. Some EU citizens are disappointed by the benefits of the internal energy market and more efforts to explain its potential benefits to citizens are needed.

A comprehensive analysis of the need for supplementary gas stocks, essentially based on an economic approach, is necessary. Gas supply should be more diversified with more LNG facilities and an enhanced gas network.

Member States are responsible for their energy mix but should have more flexible targets for energy sources and emissions allocations. Coal will be a long term fuel according to some participants. Its part in the energy mix will decrease due to environmental constraints, according to others.

There was a large consensus amongst the speakers that the implementation of the EU Emissions Trading Scheme causes difficulties and creates distortions in the internal energy market. Member States need visibility for the CO2 allocations after 2012.

The Commission should consider harmonising the trading of white and green certificates at the EU level.

There is a consensus on the importance to speak with one voice in external relations. The future of relations with Russia is important, including the signature of the Energy Charter Treaty by Russia.

1.7. European Parliament

The Committee on Industry, Research and Energy (ITRE) debated the Green Paper several times. The debate was based on the report prepared by Mrs Morgan (ESP/U.K.). The final opinion of this Committee is expected on 23 November.

The ITRE draft Morgan report welcomes the Commission's green paper on a European strategy for sustainable competitive and secure energy. There is a need to recognise that Europe is in a radically new context in relation to energy, which demands the development of a European energy policy securing affordable energy as far as possible from indigenous resources, whilst protecting the environment and combating climate change.

It recognises that climate change is causing serious problems requiring immediate EU action and believes that by 2050 the overwhelming proportion of EU energy must come from carbon free sources (asking for a binding 2020 CO_2 target and an indicative 2050 CO_2 target along the lines of the 2 C° degree target). The EU ETS should be revised and extended.

EU should set a long-term stable policy framework, giving investors clear guidelines as to where the market should invest. This framework should contain an EU target for energy efficiency which represents at least a 20% improvement by 2020, binding sector targets for renewables in order to achieve 25% of renewables in primary energy by 2020, and an indicative target for renewables of 50% by 2040. The Strategic Energy Review should be considered as a first step.

Member States should set out a strategy for the pooling of national research budgets at EU level, beyond the Seventh Framework Programme, for research, technological development and demonstration activities.

Energy efficiency is a priority in the EU, and the most cost effective method of reducing energy demand. To develop a systematic approach to the production, distribution and consumption of biofuels

Commission should recognise the medium term importance of fossil fuels and to encourage the further development of an economical method of carbon capture and storage in relation to coal and gas and oil, and insists that by 2020 there should be ten large scale functioning demonstration plants in the EU.

It accepts that nuclear energy remains a controversial area and that any decision on its development will remain the responsibility of the Member States.

Structured debate on the mechanics of how the EU will speak with one voice to third countries should be carried on. The Commission and the Member States should take very seriously the possible deficit in gas supplies from Russia after 2010 due to the lack of investment.

It calls upon the Member States to recognise that the current model of the EU energy market is not working and that we cannot rely entirely on market driven solutions to face the new energy reality; believes that a clear political framework is needed to establish a high degree of energy independence, long-term stability, efficiency, environmental sensitivity and security of supply; takes the view that the responsibilities of governments, regulators and market actors must be better defined in order to achieve a properly functioning market.

There are 560 tabled amendments as well as several suggestions for amendments coming from the 7 European Parliamentary Committees consulted for opinion (*the Committee on Transport and Tourism, the Foreign Affairs Committee, the Environment Committee, the Committee on International Trade, the Committee on Economic and Monetary Affairs, the Development Committee).* Notable is the strong support for the objectives of the Green Paper and the concept of a common and coherent energy policy for Europe. The role of transport in achieving energy policy is highlighted. There is a support for the Commission's sector inquiries, and a call for the Commission to make full use of all available instruments to deal with breaches of competition law. There also saw an urgent need to improve the investment conditions in respect of simplified and streamlined approval procedures and streamlined legal procedures. The need of a more ambitious, clearly targeted, well monitored strategy for energy efficiency and renewable energy should be mentioned.

The common European energy policy should include a strategic external component as the geopolitical implications of energy supply and demand, include the import dependence are highlighted. EU needs broader global approach to energy issues instead of only focusing on Europe. Whatever Europe is doing to mitigate climate change will be rather meaningless if developing countries – in particular large and rapidly growing economies such as China and India – are not actively involved in efforts to curb GHG emissions.

1.8. European Economic and Social Committee

In September the EESC adopted an exploratory opinion on "The energy supply of the EU: a strategy for an optimal energy mix". Although this is not a direct response to the green paper, it can be regarded as a useful contribution to the debate opened by it.

The best strategy should be based on a diversified mix of energy sources which should include all sources and potential energy uses. The real issue is not excluding any source - neither coal, nor nuclear power - but how to reduce drawbacks to the environment and how to reduce dependence. Better energy policy coordination at EU level and increased research and development efforts are essential for an optimum energy strategy.

Energy efficiency is the first priority followed by renewable energy sources. Alternative fuels, intelligent management of traffic, and hybrid vehicles may help to reduce dependence on oil in transport. Nuclear energy continues to be an option for the future as long as better technologies and sources cannot satisfy the demand; however, better support is necessary for nuclear safety and waste management. In the future, new technologies will take account of environmentally sound use of traditional energy resources such as coal and gas (clean coal, liquefied natural gas technology etc).

1.9. Committee of the Regions

The Committee of the Regions welcomed the publication of the Green Paper. It highlighted the role of regional and local authorities as energy producers (e.g. through participation in energy companies) who are dependent on fair competition.

The Committee considers that the second internal market package must be fully implemented and deplores the inadequate transposition of the directives on liberalising the internal gas and electricity market in many Member States. It rejects the idea of setting up new administrative structures such as a European "energy regulator".

Member States have the prime responsibility for the security of their own energy supplies. and the choice of energy mix. The share of renewable sources of energy in the energy mix should be increased. Increasing energy efficiency is an important goal, particularly with a view to preventing further increases in import dependency. The EU emissions trading scheme needs to be expanded and improved. The Committee supports a common approach to a foreign and security policy and the proposal for an international agreement on energy efficiency.

The Committee welcomes the presentation of a strategic plan to boost the development of new energy technologies at European level. It proposes that the EU offer incentives for the use of sustainable energies in all relevant policy areas within its remit and urges making sustainable energy and energy efficiency a research and development priority and providing an adequate share of Community support for this purpose.

2. THE ANALYSIS

An exhaustive analysis of the contributions has been carried out following a methodology that provided a precise quantitative and qualitative evaluation of the opinions of the contributors, taking into consideration their significance. The Green

Paper introduced for each priority 2-3 main questions to be solved. These questions were reflected in the online questionnaire.

METHODOLOGY

The analysis was carried out in each of the 6 main priorities of the Green Paper separately, and an additional crosscutting item - Energy Policy for Europe – has been added. Each of the priorities contains the most important areas highlighted in the Green Paper.

All contributions were precisely analysed in a large matrix subdivided into the main priorities. All important areas were analysed separately. The idea was to describe the discussion on the similar topic highlighted by the Green Paper. Each contribution was compared with the Green Paper text in a positive or negative way, if there is an agreement within the Green Paper proposed approach, an important opposite or a divergent approach. Any idea, which should help the Commission for further development, was highlighted during the analysis as well.

2.1. Internal energy market

Existing legislation is sufficient but it is recognised that progress has been slower than anticipated and the internal market is not considered to be functioning yet properly. The legislation has not been successfully implemented everywhere and most of the comments welcome the infringement procedures addressing the failures of certain Member States to implement EU directives. There is generally a broad consensus on the need for full implementation of the 2003 directives on gas and electricity before considering further measures. Priority should be given to ensuring non discriminatory access to the electricity grid and the gas network in order to facilitate trade between and within countries.

2.1.1. European Grid / European Grid Code

Some of the comments welcome and support the idea for harmonised market rules, but many disagree with the opinion of the European Commission, that it would be best served with a European grid code. Regional codes have already been developed and the proposal for a European grid code requires more clarification on its content and added value.

The Member States that commented the Green Paper agree on a common approach on regulatory issues affecting cross border trade and investments. On the other hand, there are some Member States, such as the United Kingdom, which strictly reject a European Grid Code.

Transmission system operators point out the existence of adequate regulations not only at national but also at regional level. The synchronized electricity regions in Europe have already developed their regional grid codes. In their view the UCTE[4] operation handbook and the accompanying multilateral agreement have already led to a harmonization of security standards. Some of them hold the view that the implementation of a new

[4] Union for Co-ordination of Transmission of Electricity

European grid code bears a threat for the well-functioning cooperation between transmission system operators.

In contrast, the Council of European Energy Regulators emphasises that a European grid code would be different in character from national grid codes and therefore suggests finding a different term for it and the control of it through energy regulators to ensure it operates in the interests of European costumers.

Federations of energy and gas companies are mostly against a European grid code in the supposed form. They not only call for clarification and criticise it as unnecessary in view of the existing national grid codes, but also refer to inevitable differences in the operating requirements. In contrast, associations of industrial companies welcome the process of developing common rules and standards at Community level. They consider the European grid code as the way to harmonised or equivalent and non-discriminatory grid access conditions, to a transparent environment for investments. However, some of them question the necessity of a European grid code and point out the potential of stronger cooperation between national regulators.

Electricity companies based in the United Kingdom also mention their special situation. They argue that there is a much larger interconnected system in continental Europe and it is therefore inappropriate to attempt to define a single set of requirements within a European grid code.

Non-governmental organisations support the idea of a European grid code. Cogeneration promoters go even further calling for a European distribution code.

2.1.2. European Regulator

Predominantly, the comments agree on the need for more cooperation but point out the effectiveness of already existing structures and so reject the establishment of a European regulator.

Member States hold the view that the introduction of a European regulator is not necessary and the European Commission should instead implement adequate steps to ensure the necessary range of powers and the independence of the national regulators. They also emphasise the importance of continued strong cooperation between national regulators in Europe for the improvement of the European internal energy market and they welcome the ongoing work of the European Regulators' Group for Electricity and Gas.

The European Parliament also stresses the importance of real development at national level but also suggests that in case national regulators fail to fulfil their tasks within a timetable of two years, the Commission should move forward and establish a European regulator.

Transmission system operators claim that the great differences in the sphere of actions and responsibilities of the individual regulators generate a lack of regulation in cross-border issues. In their view, it would be more effective to grant transmission system operators a more formal consultation role rather than to establish a European regulator. Also, federations in the electricity, gas and other industries adopt the same position and

consider that the European Regulators' Group for Electricity and Gas should provide a more effective coordinating role at European level.

2.1.3. Priority interconnection plan

All the comments agree on the need for more interconnection to increase cross border capacities. The most serious problem is the complexity and length of authorisation procedures under national and regional authorities.

The member states support the implementation of a priority interconnection plan with, preferably, an indication of the strategically most important connections. They also emphasise that the improvement of interconnection should not be limited to the 25 Member States but should also include neighbouring regions.

Transmission system operators agree with the position of the Green Paper that the improvement of grids and interconnection is crucial for the Internal Market. But they do not see how a European interconnection plan or a European coordinator could help to overcome the problems of international bottlenecks, which they consider to be the main barrier to the implementation of the European Internal Market. They mention the laws on regional planning and the lengthy authorization procedures as the main hindrances and see some real potential for a European solution.

Federations of energy and industry companies welcome the priority interconnection plan. However, some point out the problem of dominance which directly affects competitiveness. Competition rules should be more effective in challenging further integration. It will be too late once cross-border bottlenecks have been overcome, if existing dominant players have extended their grip further by being dominant on both sides of a border.

Furthermore, it is stated in the comments that investments should be led only by the market and justified by cost-benefit analysis. The European Commission should concentrate its efforts on creating the right conditions to enable investments in a new cross-border infrastructure.

A properly functioning internal energy market will deliver the necessary incentives for investments. Investments in the industry sector rely on a stable predictable regulatory framework. Long term contracts are considered essential to secure investments.

Directives need to be fully implemented, not only in the letter but also in the spirit. The European Commission should ensure that legal unbundling is undertaken in all the Member States. The proposal for further legislation on unbundling is rejected by energy producers while full ownership unbundling is requested by large industrial consumers.

The importance of long term contracts is raised by representatives of large industrial consumers as they have a positive impact on competitiveness and security of supply.

The implementation of the EU emission trading scheme causes an unequal competitive situation for the European industry. Its influence on the price of electricity should be analysed in detail.

2.1.4. Investments in generation capacity

It is a common opinion that new investments in generation capacity are needed in Europe to satisfy growing demand. It is also agreed that transparent and predictable regulations will contribute to the necessary investments and that a properly functioning internal energy market will deliver the necessary incentives. The comments also indicate that investments in the industry sector rely on a stable and predictable regulatory framework. This framework should counteract the higher risks to investors due to the liberalisation process in the energy sector.

Member States hold the view that new investments should be encouraged by putting in place the right regulatory environment and incentives. Equal competition rules are needed for new investments, involving both conventional energies and low-emission and renewable energy technologies.

Federations of electricity companies stress that investment is mainly a matter for the sector actors, with the authorities playing a facilitating role. They mention tax incentives, faster planning and permit processes and long term contracts as essential to secure investments. Furthermore, the European Federation of Public Service Unions refers not only to a lack of investment in networks or generation but also in skilled staff.

Companies generally welcome the call for improved framework conditions for infrastructure investments and favourable investment conditions. Their comments underline the need for new investment in order to ensure the security of energy supply in Europe, notably for new gas and oil pipelines and liquefied natural gas terminals as well as for application of transit and third party access to existing pipelines.

2.1.5. Importance of unbundling

There is a broad consensus that the second electricity and gas directives need to be fully implemented, not only in the letter but also in the spirit. The European Commission should ensure that legal unbundling is undertaken in all the Member States. Some comments welcome the infringement proceedings launched by the European Commission against Member States in this context.

Member States believe that effective unbundling is an essential step towards an internal energy market in Europe, assuming that fair and non-discriminatory access to the network is provided for all system users.

Regarding further measures at Community level, regulators consider ownership unbundling to be the preferred method. Where this is not feasible, they suggest information ring-fencing or structural separation of the system operation function of the network operators.

While energy producers reject further legislation on unbundling, it is requested by large industrial consumers. Some comments stress the need of a comprehensive overview based on the complete implementation of legal unbundling before formulating further reaching requirements.

2.1.6. Competitiveness of European industry

The fundamental aim of secure availability of energy at affordable prices stated in the Green Paper is welcomed and supported by all comments.

Member States agree that one of the principal aims behind establishing the internal energy market is to increase efficiency and thereby lower energy prices. They support the regulation of energy markets and healthy competition provided that it does not endanger security and sustainability of energy supply.

The House of Lords of the United Kingdom refers to the lack of liberalisation in continental Europe, to long-term contracting basis for gas supply and to the consequent link between oil and gas prices as obstacles to a truly competitive European market.

The importance of long term contracts is raised by representatives of large industrial consumers as they have a positive impact on competitiveness and security of supply. Federations of energy producers welcome the commitment of the European Commission to full economic analysis and regulatory impact assessment of any future policy measures. They also mention the access to market related information as a stimulus to increase competitiveness.

Some comments claim that implementation of the EU emission trading scheme creates an unequal competitive situation for the European industry. Its influence on the price of electricity should be analysed in detail. Other comments note that the coexistence of regulated and market prices distort competition and should be avoided.

2.2. Solidarity

There is a convergence towards the idea that a well functioning, liberalized and competitive market is the basic tool to enhance the security of supply. However, further EU intervention is generally not welcomed. The need to develop the storage capacities in the case of energy crises is mentioned by several contributors.

The setting up of a European Energy Supply Observatory is of great importance. It is generally perceived as an interesting means of increasing transparency and detecting quickly the risks of infrastructure shortages. It is also necessary to ensure that the observatory does not duplicate the work already done by other institutions or by the existing structures at the European level.

A certain reluctance to go further than the current legal requirements to maintain a minimum oil stocks level is generally shared among the contributors. It is interesting to note that the European Parliament considers that stocks are needed to deal with economic and political uncertainties and that Commission should come forward with proposals relating to the need for gas stocks within the Community. The few comments on the question of the oil release mechanism favour the use of the existing mechanisms, mainly in the framework of the IEA.

Network security is considered as an important element contributing to the successful development of the EU energy market, and to security of supply as such.

There is broad agreement that intensive cooperation and more coordination of TSOs is needed. The idea of a formal grouping receives some support and it should be assessed further.

The setting up of a European Centre for Energy Networks does not receive large support. The main reason is the existence of already existing structures (ETSO, UCTE, etc…). The need to assess the situation on a case by case basis, to take into account the specificity of each piece of infrastructure, is emphasized. There is no support for common standards in this area.

Improving transparency of oil (and gas) stocks is generally welcomed. This question did not receive, however, substantial comments.

There is no support for a legislative proposal to manage the natural gas reserves. Contributors consider that this question is a matter reserved for Member States and is not to be treated at the EU level.

There is broad agreement to implement fully and evaluate the current legislative framework for security of supply of electricity and gas before considering any possible amendment. It would be premature to review the existing Directives.

2.3. Diversification of the energy mix

Several contributors welcomed the argument that the choice of energy mix should be for the discretion of Member States. Support was expressed (mainly by energy companies) for the diversification in the energy-mix. All energy and technology options must be kept open, without ideological restrictions. Using all energy carriers, including nuclear and coal (fitted with CCS), would provide price stability and will be needed in coming decades.

To promote diversification of energy supplies, the EU must create a stable political framework for energy companies to do business with their fuel suppliers. All sources of energy should enjoy a level playing field and diversification should result from free and competitive markets. Taxation may have an important effect on the energy mix. Harmonisation of tax policies could avoid distortion of competition.

The European Parliament proposes that the EU set a long-term stable policy framework, giving investors clear guidelines as to where the market should invest. It also believes that this framework should contain an EU target for energy efficiency which represents at least a 20% improvement by 2020, binding sector targets for renewables in order to achieve 25% of renewables in primary energy by 2020 and a predictable price for CO_2. It also considers that there should be an indicative target for renewables of 50% by 2040

The reference in the Green Paper to "secure and low-carbon" energy sources was criticised for lacking clarity and running contrary to the principle of an energy mix based on market forces and competition.

Decentralised electricity and heat generation should be widely promoted to increase both security of supply and local/rural employment.

There is a need for investments in upgrading the existing network, in new gas pipelines and in new gas storage. The EU is not in a position to discard the use of fossil fuels in electricity generation. An open debate on the question of the future role of coal and nuclear energy is necessary.

In the long term, gasification of solid fuels (both biomass and coal) makes them more effective and efficient. If renewables require support or a financial stimulus, this should be in a careful and market-oriented approach, able to lead to price performance ratio in the long term and to the disappearance of the subsidies. Renewables have a strong capacity to create employment: they are more labour-intensive, with high quality jobs in terms of specialisation and remuneration. It is also a sector with strong projected growth. This can have a strong impact on local employment, because of their decentralised nature.

Nuclear energy remains a controversial area. Any decision on its development will remain the responsibility of the Member States. There is some interest in a transparent and objective debate on the future role of nuclear energy.

For intermittent renewable energy (especially wind), the cost of the required network reinforcement and backup capacity should be taken into consideration. Stability of the tax regime is essential. Investment made in a particular fiscal and tax environment should be given adequate time to recover economic incentives.

Europe has significant volumes of unconventional hydrocarbons. The Green Paper does not adequately address Europe's indigenous production, which currently meets about 20% of oil demand and some 55% of gas demand. Despite the maturity of the European producing areas, the potential for this most secure source of oil and gas could be considerable. Favourable framework conditions such as stable, market-based regulatory regimes and appropriate, reliable fiscal regulations will support the development of technologies for maximum recovery.

2.4. Sustainable development

Sustainability should be the key issue for energy policy. Sustainability is becoming an issue and clear guidelines need to be developed. The main measures compatible with the Lisbon Strategy and the sustainable development strategy should address climate change challenges. An integrated approach is a must. All actions taking into consideration not only climate change, but also renewable energy sources, energy efficiency measures, reducing emission measures, and long-term planning should be well linked and harmonised.

2.4.1. Climate change

The EU has to address climate change in a global way and increase the level playing field to the global stage. EU emissions represents only 15% of worldwide emissions, thus the global impact of local EU effort is limited. The global dimension of climate change was not addressed by the Green Paper properly. Measures adopted at EU level should go globally, particularly the EU Emission Trading Scheme or similar mechanisms. More ambitious but realistic long-term targets for GHG reduction should be adopted by the EU.

The EU Emission trading scheme (EU ETS) is a key instrument for tackling climate change within the energy sector and beyond. It should be expanded to cover other areas, mainly renewables, aviation, transport and households. Its improvement should be in terms of significantly widening the terms of the scheme, reviewing the rigour and integrity of headline targets for carbon reduction and considering the basis on which allowances are allocated. The EU ETS should be provided abroad and global participation to the EU ETS or similar constraints should be encouraged. EU ETS has the effect of increasing prices of electricity, with some companies reaping large profits.

European strategy should focus more on greenhouse gas emission related energy production than on energy per se in the interests of balanced energy mix and security of energy supply. Nuclear power has a role to play in reducing national CO_2 emissions, and therefore in meeting the Kyoto commitments.

2.4.2. Energy efficiency

Most respondents seen the energy efficiency as a critical part of energy policy, while supply-side measures alone are unlikely to be successful in achieving the energy policy objectives. Energy efficiency is favourable to all energy policy goals. It helps achieve longer-term security of energy supply and reduce greenhouse gas emissions, while it may also have a positive impact on European industry competitiveness. A European approach is necessary.

All the main consumption sectors – transport, industry, households, and services are mentioned as a priority. The savings potential in combined heat and power production and its utilisation in industry and households sectors are huge. District heating and cooling, together with energy efficiency in buildings, have high potential.

A particular focus is needed in the transport sector. Higher efficiency of all vehicles and their components is asked for. Voluntary agreements with car and motor manufacturers are described as a failure and more useful successors are demanded. The transport sector should be part of regional and urban planning.

Full implementation of all directives adopted lasting recent years is essential for future development. Existing European objectives and measures should be better coordinated. The lowering of energy efficiency targets in the energy services directive is a step backwards.

White certificates are implemented only in 2 Member States, and more development and further implementation in other Member States should help. However, it is still recognised as an administrative instrument as well.

An Action plan on energy efficiency is a welcome and urgently anticipated Commission document. A balanced approach, addressing all sectors and considering their different potentials for energy efficiency, is needed. The action plan on energy efficiency focus accordingly on the transport and household sectors, especially taking into account the predicted huge increase in transport in the EU.

There is a significant commitment from all Member States to achieve the energy efficiency goal to reach 20% reduction in energy consumption by 2020 across the EU.

Many of the tools to realise Europe's energy efficiency potential are in the hands of Member States. This goal is reflected in the recently published Energy Efficiency Action Plan.

An international agreement on energy efficiency is supported, together with widening of the EU ETS. However, more clarification of the agreement is necessary.

2.4.3. Renewable energy sources

The further development of renewable energy and energy efficiency technologies is essential for our future and this argument is repeated throughout the consultation, often supported by more than 70% of respondents. The role of those technologies in relations with other countries is essential. Long-term targets and action plans particularly for renewables and energy efficiency need to be defined

The strategy and schemes adopted should include cost-benefit analysis. A more ambitious and concrete action plan with visions and strategies for the long-term sustainable development of bio-energy beyond 2010 is needed. The proposed Renewable Energy Road Map is crucial and should be a consistent and valuable document.

In the short to medium term, many renewable technologies for electricity generation will not be competitive, meaning that support is necessary. The discussion of a Europe-wide optimised promotion and possible harmonisation of framework conditions is necessary. A regional approach to the use of renewables is useful as local circumstances vary widely. The promotion and spreading of regional best practice should intensify as well.

Council targets from March 2006 are welcomed. Clear and quantified targets beyond 2010 should be useful, when taking regional circumstances into account.

An appropriate balance has to be achieved between domestic production and traded biomass. Higher efficiency of biofuels utilisation could help, leading to new wider use in road traffic.

Renewable energies, especially wind energy, need to optimise their integration into existing grids. Technical solutions and forecasting should help as well. The recommendations made under the Copenhagen Strategy (offshore wind) should be considered. Europe should develop an Offshore Wind Energy Action Plan.

Thermal from renewables –A directive should exploit heat potential to a greater extent and has to integrate the heat and electricity sectors. Much of the heat load in Europe is supplied with heat only boilers, which creates enormous potential for combined heat and power production. The integration of these two sectors will bring substantial energy savings, long-term cost savings and significant emission savings.

2.5. Innovation and technology

Europe must concentrate better on research in the energy sector and invest in a further stimulation of research, innovation and development programmes. Energy research is a strategy element for future energy technology development. Energy research must cover basic research and application research, development and deployment. Close co-operation and more synergy between both are necessary.

The EU lags behind its most important competitors in innovation. However, the EU is a global market leader in energy technologies, especially cogeneration and renewables.

A stable, long-term EU framework to encourage innovation and capital investment for energy research is therefore **critical.** An ambitious, balanced and well-coordinated research and development policy including targets is needed. Supporting this long-term framework constitutes the most effective long-term approach for promoting development to satisfy the growing demand of energy in an environmentally acceptable way.

It has to be backed with sufficient target oriented investments to ensure that targets are reached. Funding of research and development can be seen as an investment towards more reasonable energy prices in the future. **Increasing expenditure on energy research in Member States is urgent** in order to raise the number of sustainable energy supply options in the EU and significantly strengthen European research.

It is important to involve all stakeholders in the objective to develop common research agendas and deployment strategies. Stakeholders are involved in various technology platforms[5]Technology platforms in renewable energy areas or hydrogen should be created.

The planned Strategic Energy Technology Action Plan should deliver coordination of research effort at EU level. This key document for future energy supply must be adequately resourced and be easy to understand. It should be used to prevent overlaps in national research programmes. EU energy policy should avoid over-reliance of this plan on as-yet unproven technologies.

2.5.1. Innovation

Innovation and technology are the most important tools for lowering energy consumption and increasing energy efficiency. Innovative energy technologies and their optimisation are crucial for future economic development. **New innovative concepts should be defined at EU level.**

Fossil fuels remain the base of the EU energy mix, thus **the minimisation of greenhouse gas emissions must be a priority**. Innovative gas projects include CO_2 reduction, energy efficiency, reduction of traffic congestion and pipeline security, hydrogen and natural gas vehicles.

Information campaigns will help to make citizens more familiar with new energy efficient concepts and challenges we face. Financial mechanisms could be used to provide the necessary learning investments and training, which will lead to the take-up and use of advanced technology.

[5] Zero emission fossil fuel power plant platform, "SmartGrids" platform, Hydrogen and fuel cells platform, Photovoltaic Technology Platform, and recently launched Solar thermal, Wind and Biofuel Technology platforms

2.5.2. Technologies

Technology is the most reliable and promising tool to address major global environmental concerns without affecting the standard of living at large. Technology has proven critical in increasing security of oil supplies. But new technologies take a long lead in time over decades rather than years.

The development of a green car and new technologies for car propulsion should help the transport sector. Cooperation with transport and motoring sectors is necessary.

Europe should develop a world-class energy technology portfolio. The business opportunities for export of those technologies should be carefully analysed.

The main focus should be on energy technologies with low-carbon intensity, energy saving measures, clean coal technology, optimisation of gas fired stations, nuclear power, including effective means of nuclear waste disposal, renewable energy sources, including photovoltaics, offshore wind, large scale storage batteries, fuel cells and hydrogen.

Other priorities identified are second generation biomass technologies, more efficient photovoltaic and solar thermal power, and geothermal energy. The economics of renewable technologies also need to address co-firing technologies (peat/coal-wood, straw-natural gas).

Research into nuclear technology, nuclear fission, ITER and the management of radioactive waste should continue. Europe's technological edge should be maintained and the EU should continue to play a major role in the development of Generation IV reactors.

Carbon capture and storage and carbon sequestration technologies are technologies for the future development and utilisation of fossil fuels, however there are still unresolved risks in these technologies. Further research and increased demonstrations are necessary to bring down the cost of these technologies. They are very important for EU's security of supply and could be commercial in 10-15 years.

2.5.3. Research

A more strategy driven approach to energy research must not lead to a reduction in financial support from Member States. The subsidiarity principle should apply to energy research, which is indicated with some major projects (ITER, Generation IV reactors). It should be established whether and to what extent a European added value can be obtained.

Increased support is necessary for applied research to preserve the competitiveness of European industry, which is facing strong competition from publicly funded applied research in major markets across the globe.

Innovative energy technology development should play an important/key role in FP7. EU-led investment in energy research and development tends to be fragmented and bureaucratic. Coordination between various energy programmes (FP7, Intelligent Energy for Europe) should be enhanced. New funds such an EU Clean Energy Investment Fund could be created.

2.6. External policy

The proposal for a common external energy policy to enable the EU to speak with one voice is supported by nearly all contributors. The EU has to aim for a more co-ordinated external policy approach, integrating aspects of energy policy. Greater coherence among the Member States when conducting their national foreign policies will considerably increase the impact the EU can have on the international scene.

A few contributors stressed that national sovereignty of the Member States should not be restricted, while accepting that Member States should become fully aware of the importance of a common external energy policy.

A few contributors were critical of the idea of exporting the internal market rules to jurisdictions outside the EU, regardless of the development of their industry. The creation of a competitive, single market could actually work against the interests of the EU seeking to speak with one voice on external energy relations.

The Green Paper was criticised for focusing too much on competition effects within the EU, with only brief references to external, global factors. The global perspective was not seen as an imminent issue compared to matters more immediately affecting Europe.

EU foreign energy policy should balance security of energy supplies and sustainability issues. In the centre of this external energy policy should be energy partnerships with supply and transit countries. The mutual opening of the markets for investments in the energy sector must be specified. External policy should be developed in a very transparent and cooperative manner, which ensures open and comprehensive dialogue between the Commission and Member States

The EU should play a more active role in spreading a sustainable energy model to third countries as part of its energy diplomacy, that is, in reinforcing the visionary role that seems to have been lost in recent energy policy dossiers. Agreements with third countries should be based on open dialogue and negotiation. The EU should not attach strict conditions to negotiations, thereby weakening the bargaining position of developing countries.

Key topics to be addressed with third countries could include the dissemination of new technologies, development and implementation of energy management plans, choice of energy mix to minimize pollution, climate change and health effects of energy.

The EU should continue to facilitate international negotiations to develop a global framework for addressing climate change. Renewable energy and energy efficiency have to be an integral part of any EU external energy policy. The EU should work towards achieving internationally acceptable levels of energy efficiency.

Dialogue and partnership are essential. A global sustainable energy pact should be a key element in the EU external policy on energy. It should include the adoption of clean and renewable energy technologies, and promote not only energy efficiency but also democracy, human and trade union rights (as laid down by the ILO) and social dialogue. It should support good governance and fight against bribery and corruption. Dialogue should be deepened with main energy producers – Russia, Norway, Algeria.

The EU should develop transparent frameworks with producer countries covering mutual opening of the markets for investments in the energy sector and protection of the economic interests of the EU investors.

Demand in consumer countries should be as efficient and clean as possible. The EU can offer technological cooperation and could seek to work with them. Cooperation is needed to answer to individual's needs for "I want to save energy, but tell me how"

Priority should be given to the ratification of the Energy Charter and the conclusion of the Transit Protocol, together with more transparent access to the oil and gas exporting markets for the EU investors. If Russia continues to refuse ratification, the EU needs to prepare an alternative strategy.

The pan-European Energy Community was supported, provided that it contributes to greater integration of the internal market and helps to extend the "common regulatory space" to the EU's energy partners. Social dialogue should be included in the provision of the Energy Community Treaty. There was some concern about the limits of the EU power system (technical, legal, efficiency and manageability of coordination tasks, etc.). Energy security needs to be stressed more emphatically in developing the Neighbourhood Policy

The EU should examine the role and importance of the existing and functioning professional associations (operators and regulators) with a view to exploiting their role in ensuring secure and sustainable energy supply.

Long-term contracts between producers and consumers must be promoted for the financially intensive energy industry. It gives financial safety for the investments. It should open up long term down stream contracts. The EU can create a framework in which long term-contracts with suppliers outside the EU are possible, and it can assist them with the technical know-how required for exploiting difficult fields.

2.7. European Energy Policy

Most observers considered that Europe needs realistic and more coherent energy policy at Community level. However, it is unrealistic and not even desirable to try to replace national energy policies by a single European one. What is needed is more EU-level coherence on policy areas, where it will add value. Subsidiarity should be the main principle. Uncoordinated national energy policies have no future.

Moving towards a common approach to European energy policy, with individual Member State governments relinquishing existing powers to the Community on energy-related matters, can and should only be pursued if Member States agree that a more co-ordinated approach is necessary.

Difference in geography, electricity consumption profiles, weather conditions and natural resources provide more opportunities than threats to achieve sustainable and secure energy for Europe, at the lowest possible cost. Member States should have the rights to use domestic energy sources, and follow national preferences in their energy mix.

European energy policy must form an important pillar of European and Member States´ foreign policy and reconcile Community and foreign policy through a common strategy.

More attention should be given to interdependencies between the internal market, environmental policies and external energy relations.

The discussion about energy policy offers the chance to transform today the nationally splintered energy policy landscape into a coherent framework without the drawback of a centralistic policy. This discussion should define the competences at EU and at Member State level in a transparent way.

Markets alone cannot provide the Member States with security of supply or with a more sustainable energy mix. The uncertainty about the energy policy framework and the way it will help to connect third country supplies with EU downstream activities is growing. Adequate investments will not come about in an environment of political and regulatory framework uncertainty.

2.7.1. Three Main Objectives

European energy policy must coordinate and optimise actions targeting the three main energy policy objectives. The objectives should be coherent, compatible, environmentally sound and appropriately balanced. Achieving one is not possible without the others. Member States should strengthen the cooperation on the three main pillars of energy policy.

All energy sources are needed for EU energy policy, as diversified as possible in terms of accessibility, geography and technology, with a view to ensuring a high level of energy supply security.

The present principle of security of supply, whereby Member States are responsible for their own supply security alone, is no longer sufficient. Security of supply should be sustainable and not threaten the competitiveness of European industry

A worldwide view of *sustainability* is important, particularly in climate change policies and geopolitical risks. More policy options should be given to the control and reduction of demand, particularly for the enhancement of competitiveness and security of supply. Furthermore, a stable framework for necessary investments, as well as support for further research, should form part of the core principles of a European energy policy.

2.7.2. Strategic EU Energy Review

The review must provide a good foundation and a solid step towards an Energy Policy for Europe. The review should have a global context taking into account events with consequent effects on the world's climate.

It should analyse the development of energy policies and the methods of energy management. An analysis of all advantages and disadvantages of different energy sources will help. It should seek to develop a clear European framework to support national decisions on their future energy mix.

It should be produced on a regular basis, and include a yearly score card for the goals of the Green Paper and its follow-up.

The review should demonstrate how liberalised markets will meet different requirements and take into account the fragmentation of the market. The social dimension should be addressed in the review.

A long-term framework is needed. Longer term horizons are important for the EU ETS and for establishing a level playing field with energy suppliers.

ANNEX 2

Main Energy Events during Austrian and Finnish Presidency with significant Green Paper discussion

Austrian Presidency	
Date	**Main Energy Events**
14 March 2006	Energy Council
13-14 March 2006	G8 Energy Conference
15-16 March 2006	G8 Energy ministerial meeting
23-24 March 2006	European Council
31 March 2006	European Energy and Transport Forum
6 April 2006	EU-India industry conference on energy
22-24 April 2006	10th ministerial meeting of the International Energy Forum
25-26 April 2006	Sustainable Energy Forum (Amsterdam)
8 May 2006	Seminar on implementation of Gas Directive (BASREC)
18-19 May 2006	Gas Regulatory Forum (Madrid)
25 May 2006	EU-Russia Summit
7 June 2006	EU-OPEC dialogue
8 June 2006	Energy Council
9 June 2006	Energy Community Treaty ministerial meeting
12-13 June 2006	Eurelectric conference
16-18 June 2006	European Energy Forum
21 June 2006	European Energy and Transport Forum
25-26 June 2006	European Council

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Finnish Presidency	
Date	**Main Energy Events**
14 July 2006	EU-Canada Summit (energy discussion)
16-17 July 2006	G8 Summit in St.Petersburg to focus on energy issues
17 July 2006	EU-Ukraine Cooperation Council
18 July 2006	EU-Kazakhstan Cooperation Council
18 July 2006	EU-Kyrgyz Republic Cooperation Council
24-25 July 2006	Energy Community Gas Forum
22-24 August 2006	Offshore Northern Sea Conference, Stavanger, NO
30 August 2006	EU-Norway Energy Dialogue, ministerial meeting
4-5 September 2006	European Nuclear Power Debate, London, UK
4-8 September 2006	21st European Photovoltaic Solar Energy Conference, Dresden, DE
6 September 2006	Clean Power Technologies 2006, FI
7-8 September 2006	EU Electricity Regulatory Forum 2006, Florence, IT
9 September 2006	EU-China Summit (energy discussion), Helsinki, FI
10 September 2006	EU-South Korea Summit (energy discussion), Helsinki, FI
10-11 September 2006	EU-ASEM (Europe-Asia Meeting) Summit, Helsinki, FI (energy discussion)
12 September 2006	Public Hearing of European Parliament (ITRE) on the follow-up of the Green Paper, Brussels, BE
12-13 September 2006	BASREC Seminar on the EC Green Paper, Helsinki, FI
12-14 September 2006	2006 European Renewable Energy Policy Conference, Brussels,BE
13 September 2006	Energie Markt und Energiepolitik, Köln, DE
14-15 September 2006	Permanent HLG, Vienna, AT
18-22 September 2006	50th Annual Conference IAEA, Vienna, AT
19 September 2006	Meeting with Energy Directors General of Member States on the follow-up of the Green Paper, Brussels, BE

21 September 2006	EU-OPEC: Carbon Dioxide Capture and Storage Meeting, Riyadh, Saudi Arabia
21 September 2006	EUROMED Energy Forum
22 September 2006	Conference/Hearing of the Commissioner Piebalgs on the follow-up of the Green Paper, Brussels, BE
22 September 2006	Eurogas Annual Conference, Brussels, BE

Events since the end of Consultation Period (24 September 2006)	
28-29 September 2006	International partnership for the Hydrogen Economy, Steering Committee, Reykjavik, ISL
4 October 2006	European Regulators Group (ERGEG), Brussels, BE
4-6 October 2006	General Assembly on European Hydrogen and Fuel Cell Technology Platform, Brussels, BE
5 October 2006	Gas Coordination Group
8-11 October 2006	World Forum on Energy Regulation III, Washington DC, USA
9 October 2006	Fossil Fuel Forum, Berlin, DE
9 October 2006	COEST Capitals: Energy
9-11 October 2006	EU-Latin America Forum on Renewable Energy, Panama
11/12-13 October	High Level Working Group on Energy and Environment (Renewables for security of supply), Helsinki, FI
13 October 2006	EU-India Summit (energy discussion)
18-19 October 2006	IEA Governing Board, Paris, FR
19-20 October 2006	Nuclear Energy Agency Steering Committee, Paris, FR
19-20 October 2006	Energy Charter Investment Group, Brussels, BE
20 October 2006	Informal European Council – discussion about energy security, Lahti, FI
26-27 October 2006	Energy Charter Trade and Transit Group, Brussels, BE
27 October 2006	EU-Ukraine Summit

9-10 November 2006	Energy Charter PEEREA Group, Brussels, BE
13-14 November 2006	EUROSAFE Forum on Nuclear Waste Management, Paris, FR
16 November 2006	Permanent HLG, Skopje, FYR Macedonia
17 November 2006	Energy Community Treaty, ministerial meeting, Skopje, FYR Macedonia
20 November 2006	Energy Charter Conference, Brussels, BE
23 November 2006	Energy Council
23 November 2006	European Forum for Energy and Transport, Brussels, BE
24 November 2006	EU-Russia Summit (energy discussion)
27 November 2006,tbc	EU-Canada Summit (energy discussion)
29-30 November 2006	Baku Process, EU-Caspian Sea/Black Sea energy ministerial meeting, Astana, Kazakhstan
4-5 December 2006	EU-OPEC event on the impact of financial speculative markets on oil prices, Vienna, AT
6 December 2006	European Regulators Group (ERGEG)
12-14 December 2006	IEA Governing Board, tbd
14-15 December 2006	European Council

ANNEX 3

List of Contributors sending written comments during the consultations period

1. Non-Governmental Organisations

Nr.	Name of the contributor	Country
1	Group of European Municipalities with Nuclear Facilities	Spain
2	Mouvement Européen France Ille et Vilaine	France
3	Bond Pearce LLP	UK
4	Conférénce des Régions Périphériques Maritimes d'Europe	France
5	M J Mc Dermott and Associates Ltd (MMA)	UK
6	Quaker Council for European Affairs	Belgium
7	Global Wittness	UK
8	ME-35	France
9	Erste Folgenabschätzung	Germany
10	Pierre Radanne	France
11	Highlands and Islands Enterprises	UK
12	Club Español de la energía	Spain
13	The European Tribune	Belgium
14	British Psychological Society	UK
15	The European Federation of Public Service Unions	Belgium
16	Architects council of Europe	Belgium
17	Clingendael	Netherlands
18	Die Grünen Kärnten	Austria
19	European Association for mountain areas	Belgium
20	Norwegian Consumer Council	Norway
21	PublishWhatYouPay	Nigeria
22	Association of Latvian Major Cities	Latvia

2. Member States / Institutions

Nr.	Name of the contributor	Country
1	Tiroler Landtag	Austria
2	Benelux	Benelux
3	Poland	Poland
4	Ukraine	Ukraine
5	Delegation of the EC to Australia	Australia
6	United Kingdom	UK
7	Bundesrat	Germany
8	European Parliament	EU
9	Arge Alp Lander	Austria

10	House of Lords	UK
11	Aberdeenshire Council	UK
12	United Nations Environmental Programme	France
13	Baltic Sea Region Energy Co-operation (BASREC)	Sweden
14	Bundesministerium für Wirtschaft und Arbeit	Austria
15	Hungary	Hungary
16	Ireland	Ireland
17	Lithuania	Lithuania
18	Sweden	Sweden
19	Netherlands	Netherlands
20	The Royal Institution of Engineers in the Netherlands KIVI NIRIA	Netherlands
21	Estonia	Estonia
22	European Economic Area	Belgium
23	Nord Rhine-Westfalen	Germany
24	Wiener umveltanwaltschaft	Austria
25	Wast Gotland	Denmark
26	Assembly of European Regions	France
27	Czech Republic	Czech Republic
28	University of Sussex	UK
29	Bundesverband Christliche Demokraten Gegen Atomkraft	Germany
30	Slovenia	Slovenia
31	Iceland	Iceland
32	City of London	UK
33	Scottish parliament	UK
34	Scottish National Party	UK
35	Die Linke	Germany
36	Sweden	Sweden
37	Romania	Romania
38	Cyprus	Cyprus
39	France	France
40	Germany	Germany
41	Spain	Spain
42	Belgium	Belgium
43	Norway	Norway
44	Committee of Regions	EU
45	Luxemburg	Luxemburg

3. Industry / Private Sector

Nr.	**Name of the contributor**	**Country**
1	Federation of Energy Companies in the Netherlands	Netherlands
2	Union Pétrolière Européenne Indépendante	France

3	European Federation of Local Public Energy Distribution Companies	Belgium
4	European Centre of Enterprises With Public participation and of Enterprises of General Economic Interest	Belgium
5	European Petroleum Industry Association	Belgium
6	Gas Infrastructure Europe (GIE)	Belgium
7	Union of Elefctricity Industry (Eurelectric)	Belgium
8	ExxonMobil Petroleum & Chemical	Belgium
9	Confédération française des travailleurs chrétiens (CFTC)	France
10	Vattenfall	Sweden
11	VDEW/VDN	Germany
12	European Association of Metals	Belgium
13	Verband kommunaler Unternehmen e.v (VKW)	Germany
14	The European Union of the Natural Gas Industry	Belgium
15	DIHK	Germany
16	International Association of Oil and Gas Producers (OGP)/Europia	Belgium
17	Association f European Chambers of Commerce and Industry	Belgium
18	Council of European Energy Regulator	Belgium
19	UNICE	Belgium
20	VCI- German Chemical Industry	Germany
21	Bundesverband der Deutschen Industrie e.V.	Germany
22	Energy Networks Association	UK
23	Verbund-Austrian-Power-Grid AG	Austria
24	European Insulation Manufacturer Association	Belgium
25	European Transmission System Operators	Belgium
26	Teollisuuden Voima Oy (ETSO)	Finland
27	European Alluminium Association	Belgium
28	EWE AG	Germany
29	Verband der Elektrotechnik, Elektronik und Informationstechnik	Germany
30	European Federation of Energy Traders	Netherlands
31	Foratom	Belgium
32	E-ON AG	Germany
33	European oil and gas innovation forum	Belgium
34	European Natural Gas Vehicle Association	Netherlands
35	German Electrical and Electronic manufacturers association (ZVEI)	Germany
36	European Hydrogen Association	Belgium
37	MAVIR-Hungarian TSO	Hungary
38	European LPG Association	Belgium
39	Cotrel and Capiel HV	France
40	Development Initiative for Chemical Industry Dependent Areas	UK
41	European Copper Institute	Belgium
42	German Wind Energy Association	Germany
43	Groupement des Autoproducars Belges d´Électricité	Belgium

44	European Association for Coal and Lignite	Belgium
45	Wintershal/WINGAS	Germany
46	Union Francaise de l´Électricté	France
47	Finnish Energy Industry	Finland
48	Centrica plc	UK
49	Scotland Europa	UK
50	Association of Austrian electricty companies	Austria
51	Suez-Electrabel	France
52	National Grid	UK
53	Chemical industries association	UK
54	Danish Technology Board	Denmark
55	Orgalime	Belgium
56	Norsk Hydro ASA	Norway
57	Euroepan Renewable Energy Centres Agency	Belgium
58	Gaz de France	France
59	Dansk Energi	Denmark
60	Industrial Federation of Industrial Energy Consumers	Belgium
61	UK association of energy producers	UK
62	Scottish Power	UK
63	European Fertiliser Manufacturers Association	Belgium
64	COGEN Europe	Belgium
65	EU-Ukraine Business Council	UK
66	Deutsche Bahn AG	Germany
67	Hansen Transmission International N.V.	Belgium
68	Statoil	Norway
69	Aliance of energy intensive industries	Belgium
70	Union for the Co-ordination of Transmission of Electricity (UCTE)	Belgium
71	European Chemical Industry Council	Belgium
72	Confederation of European Waste-to-Energy Plants	Belgium
73	British Gas Group	UK
74	European Alliance of Companies for Energy Efficiency in Buildings	Belgium
75	European Federation for Intelligent Energy Efficiency Services	Belgium
76	European Union of Ethanol Producers	Belgium
77	Eurofer	Belgium
78	Royal Dutch Shell	Netherlands
79	VELUX A/S	Denmark
80	European association of independent energy distributors	Spain
81	Federation of European Tank Storage Association	Belgium
82	Verband der industrellen Energie und Kraftwirtshaft	Germany
83	American Chamber of Commerce to the EU	US
84	Vereniging Energie Milieu en Water (VEMW)	Netherlands
85	Organisation of the Petroleum Exporting Countries (OPEC)	Austria

86	Council of European Professional and Managerial Staff	Belgium
87	Polish Chamber of Chemical Industry	Poland
88	Spanish Renewable Energy Association (APPA)	Spain
89	Asociación Empresarial Eólica	Spain
90	AREVA	France
91	Association Nationale des Commissions Locales d'Information	Netherlands

4. Private Citizens

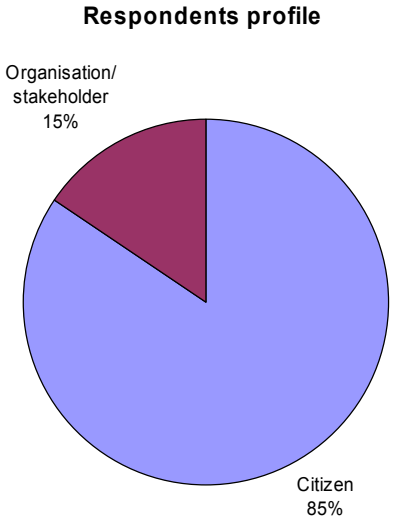
Nr.	**Name of the contributor**	**Country**
1	Jean Gronier	France
2	Jean-Pierre Rickli	France
3	Gregor Czisch	Germany
4	Petre Naidin	UK
5	Giuseppe Ramondetta	Italy

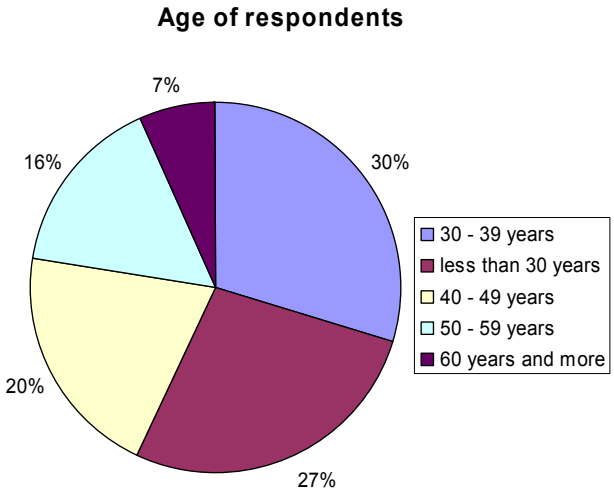
ANNEX 4

Analysis of the online questionnaire responses on the GREEN PAPER "A European Strategy for sustainable, competitive and secure energy"

The English version of a questionnaire related to the Green Paper "A European Strategy towards sustainable, competitive and secure energy" was published on 31 March 2006 as part of a public consultation. Later in April, other language versions were published as well. The questionnaire was open for public response until 24 September 2006.

During the consultation period the Commission received 1516 responses via the questionnaire (1282 from citizens and 234 from various organisations/stakeholders). The graphs below show a basic profile of respondents. 85% of respondents were citizens giving their personal view on the energy situation in Europe. 30% of respondents were people between the ages of 30 and 39, followed by 27% of the people under the age of 30. Most of the responses came from Germany, France and the United Kingdom. There were only 97 responses from Member States that acceded to the EU on 1 May 2004.





The questionnaire on the energy green paper was structured in a similar way to the Green Paper itself.[6] Most of the questions in the questionnaire correspond to the questions and open topics put forward in the Green Paper. The last chapter of the questionnaire is a general one asking for opinions on the necessity of an Energy Policy for Europe.

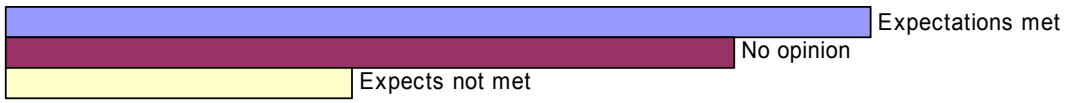
Nearly all the questions enabled multiple choice of answers. The last possible option to answer was "OTHER", which enabled any possible answer or reaction to the question. Each question was analysed separately. The results are shown below. At the end of each topic is an open box for comments on the Green Paper.

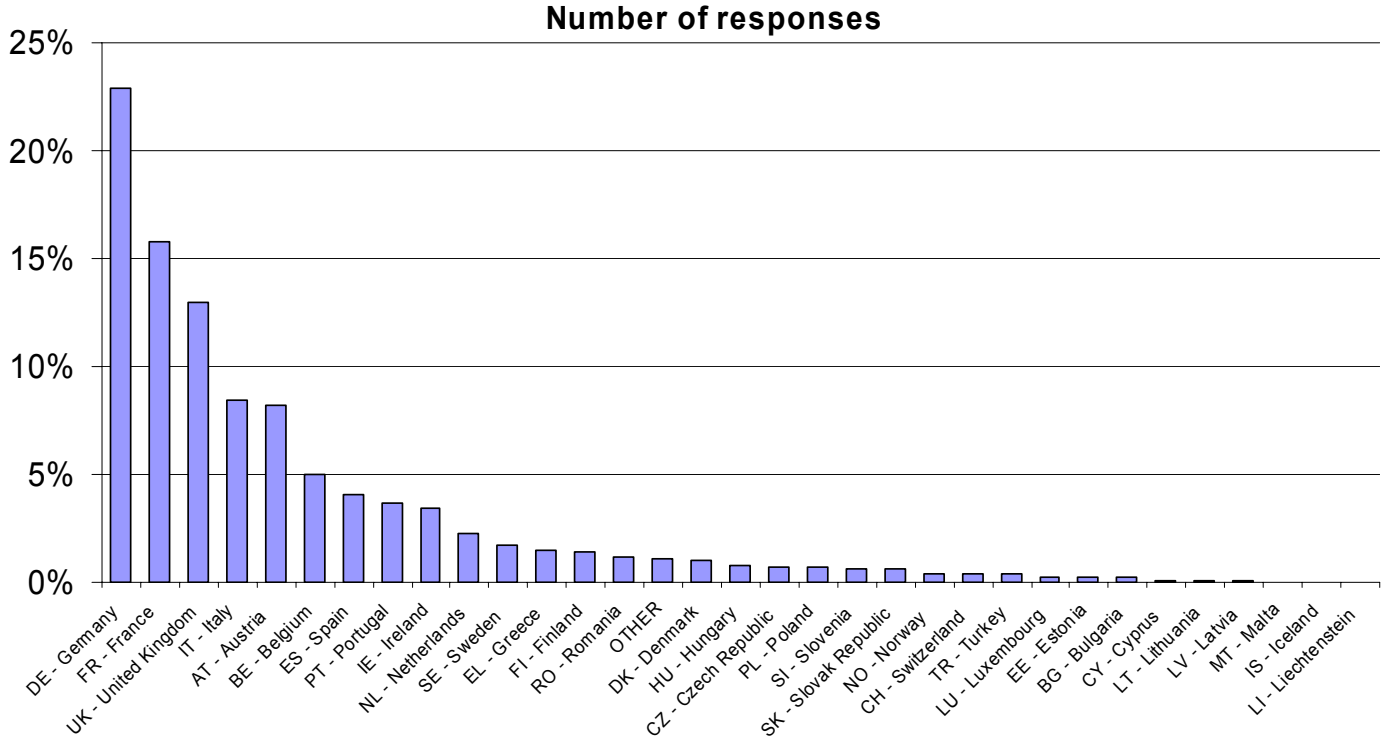
6 COM (2006) 105 final

The last question of the questionnaire describes the satisfaction of the respondents with this questionnaire. The online questionnaire met the expectations of the people at a level of 45%.

How did you perceive this questionnaire?

(1)	Expectations met	44,6%
(2)	No opinion	37,5%
(3)	Expectations not met	17,9%



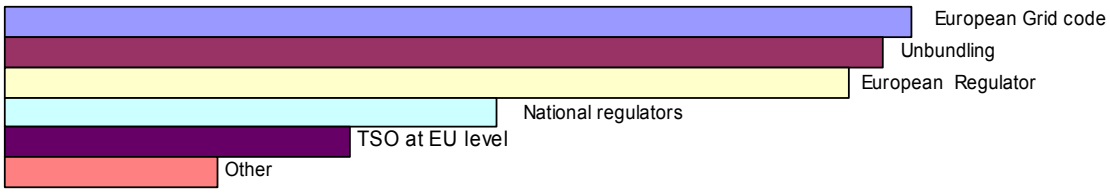


Analysis of Questions

A. Competitiveness and the internal energy market

1. In order to achieve the goal of a genuine single market, what new measures should be taken at EU and MS level?

(1)	Harmonised grid access conditions (European Grid code)	41%
(2)	Reinforced separation of network operation from production and supply (unbundling)	39,7%
(3)	Create a European Energy Regulator	38,2%
(4)	Reinforced powers and independence of national regulatory authorities	22,2%
(5)	Create a body of transmission system operators at EU level	15,6%
(6)	OTHER	6%



From proposed measures to help improve further the internal energy market, the respondents listed three measures as the most important – the development of harmonised grid access conditions through a European grid code, the finalisation of the unbundling process and the creation of a European energy regulator.

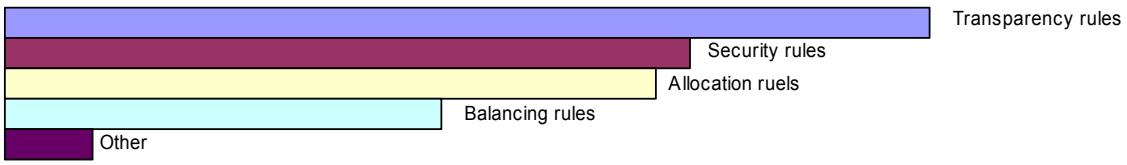
Other measures mentioned in the other comments are full and harmonised implementation of the second package of gas and electricity directives (2003/54/EC, 2003/55/EC), a call for full unbundling and fair access of renewable electricity to the grid, rapid phase-out of fossil and nuclear subsidies, the building of enough power plant capacities and the need for more cross-border interconnections.

This result gives the Commission support for the next stage in the development of the common rules of the internal market at the European level.

2. In order to develop a single European grid, what should a "European Grid Code" contain?

(1)	Transparency rules	59,4%
(2)	Security rules	44,1%
(3)	Capacity allocation rules (congestion management)	41,8%

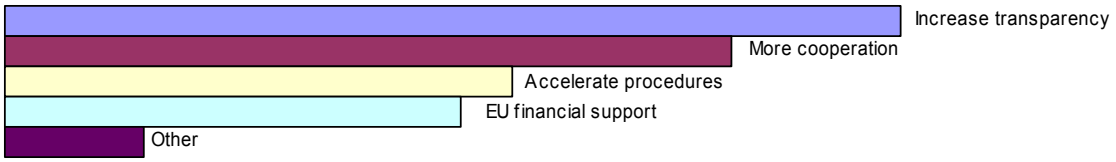
(4)	Balancing rules	28%
(5)	OTHER	5,6%



Transparency is the most important aspect for the single European grid. In particular, the transparency rules for access to the grid should be included and should be developed in a harmonised way. Particularly for renewables, priority should be given to capacity allocation rules. There is a need for further analysis and impact assessment.

3. Apart from ensuring a properly functioning market, how can the EU stimulate investments in infrastructure and generation capacity?

(1)	Increasing transparency in the market	51,8%
(2)	Promote more cooperation between Member States	42%
(3)	Accelerate authorisation procedures in the Member States	29,4%
(4)	Increase the share of EU financial support	26,4%
(5)	OTHER	8%



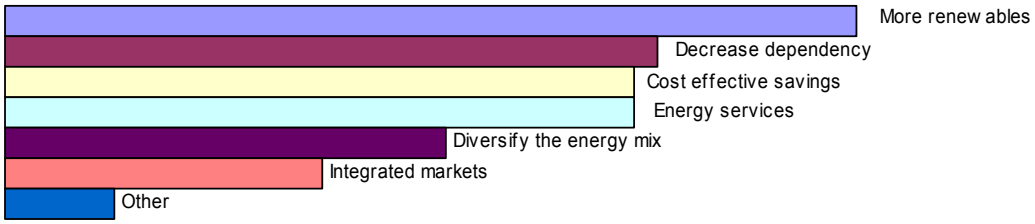
Market transparency is very important, not only for the European grid, but also for investments. The need for more cooperation between Member States is clear. Streamlining, acceleration and faster authorisation procedures are also called for. Very interesting is the fact that less than 30% of respondents see a need for increasing financial support at EU level.

The need for investments is expressed in the "other" responses. Energy investments have a long-term nature, thus a more stabile and predictable regulatory framework and social acceptance is required. Better information activities to inform citizens are necessary.

Fiscal policies should have to incorporate energy savings, with white certificates, EU structural funds and emission trading schemes being used. Promotions and investments should be used for sustainable, particularly renewable, energy sources. Incentives should be shifted from fossil and nuclear fuels towards sustainable ones.

4. How can it be ensured that all Europeans enjoy access to energy at reasonable prices?

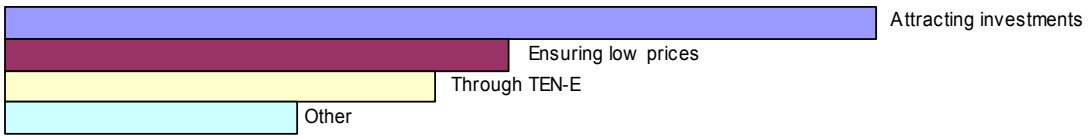
(1)	Use more renewable energies	65,6%
(2)	Decrease dependency on imported fuels	50,3%
(3)	Focus on cost effective savings of energy	48,5%
(4)	Promote efficient energy services	48,5%
(5)	Diversify the energy mix	34%
(6)	Establish integrated and competitive electricity and gas markets	24,5%
(7)	OTHER	8,4%



The main importance of reasonable energy prices is to use more renewable energy sources, which indicates support for renewables and high confidence in their future. The second main activity linked with renewables is the effort to decrease dependency on imported fuels. Next to renewables, energy savings and energy efficient services are promoted. Decreasing dependency and diversification of energy mix implies more indigenous energy sources. Decentralisation of energy sources should help to decrease energy prices as well. "Reasonable energy price" should cover all costs including external, transport and production costs, as well as decommissioning and waste treatment.

5. How can the internal energy market contribute to maintaining employment levels?

(1)	By attracting investments in the energy sector	44,8%
(2)	By ensuring low energy prices and thus increasing the competitiveness of our industry	25,9%
(3)	Through the implementation of the Trans-European Energy Networks	22,1%
(4)	OTHER	15%



Attracting investments in the energy sector, especially for renewables, is the best possibility for maintaining the level of employment. The investment framework for the renewables

industry should be harmonised in all Member States. Other often mentioned approaches to influence prices are to attract investments in energy efficiency. More focus on development of new innovative energy technologies is essential as well.

B. Solidarity

6. What can the Community do to prevent energy supply crises?

(1) Develop smart electricity networks, demand management and distributed energy generation, bearing in mind their potential to help at times of sudden shortage 56,7%

(2) Establish an observatory mechanism to identify likely shortfalls in supply and infrastructure at an early stage 31,3%

(3) Cooperate on network security among transmission system operators, including the development of common security and reliability standards 29,3%

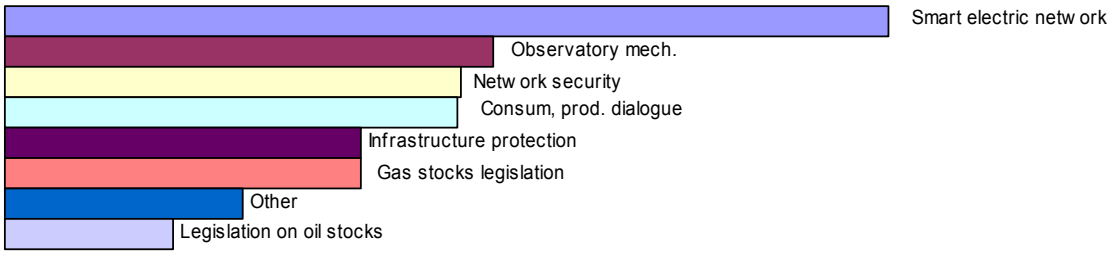
(4) Enhance dialogue with major energy suppliers/consumers 29,1%

(5) Protect energy infrastructure against natural catastrophes and terrorism 22,9%

(6) Introduce EU legislation on gas stocks to ensure solidarity among Member States in the event of a shorter-term emergency gas supply disruption 22,8%

(7) OTHER 15,2%

(8) Review existing Community legislation on oil stocks 10,8%



Smart electricity networks, demand management and distributed electricity generation could help most in a case of sudden shortage. It is interesting to note the very low support for a revision of current oil stocks legislation.

In other responses, the main focus is put on the development of renewable energy sources and energy efficiency, more diversification of the energy mix and its shift towards indigenous energy sources including nuclear, lower consumption, better access to the energy grid and decentralisation of energy production.

7. Which measures need to be taken at Community level to manage energy supply crises if they do occur?

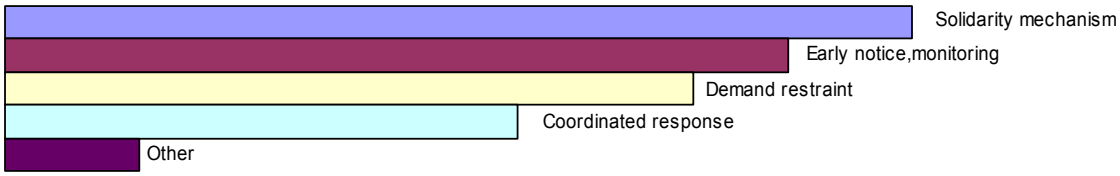
(1) A solidarity mechanism to assist a Member State facing difficulties following disruptions of its energy supplies under emergency circumstances 40,7%

(2) A coordinated mechanism to provide early notice and monitoring and to enhance response capabilities 35,2%

(3) A coordinated mechanism for emergency demand restraint 30,9%

(4) A coordinated EU response in the event of an International Energy Agency decision to release emergency oil stocks 23%

(5) OTHER 6%



A solidarity mechanism to help face difficulties and to reduce the negative effects is important, as well as mechanisms to provide early warning and monitoring of the situation. Emergency plans for demand restraints, if a crisis should occur, should be developed at Member States level, with coordination at EU level.

Another important mentioned possibility is the prevention of an energy crisis at EU level. This should be achieved mainly by the introduction of more domestic energy sources and energy efficiency measures to lower energy consumption. Minimum standards for infrastructure protection should be developed.

C. Diversification of the energy mix

8. What should the EU do to ensure that Europe, taken as a whole, promotes the diversification of energy supplies?

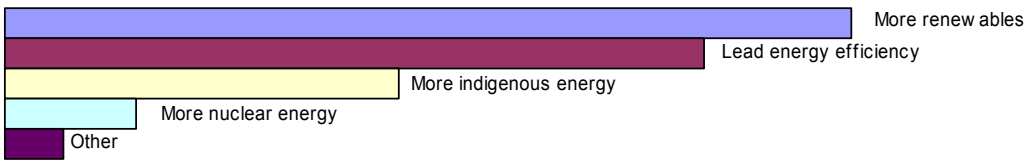
(1) Use more renewable energy sources 76,3%

(2) Be leader in energy efficiency 62,9%

(3) Use more indigenous energy sources 35,5%

(4) Use more nuclear energy 11,9%

(5) OTHER 5,2%



The clear preferred option in diversification of the energy mix is to increase the share of renewable energy sources. The use of energy efficiency in the energy mix (so called "negawatts") is well recognised as essential as well. There is 35% support for indigenous energy sources and just 11.9% for more nuclear energy.

The message is clear. The EU should develop its energy mix, building up much more indigenous energy sources than is now the case. Other responses show support for new energy sources connected with the development of new technologies, especially carbon capture and sequestration, fuel cells and hydrogen. More alternative fuels and more diversification in the transport sector are essential.

D. Sustainable development

9. How can a common European energy strategy best address climate change, balancing the objectives of environmental protection, competitiveness and security of supply?

(1) Consolidate Europe's position at the forefront of progress on efficiency and renewables 68,1%

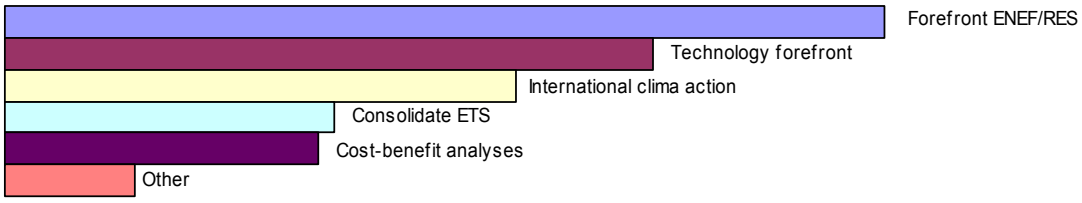
(2) Keep Europe at the forefront of energy technology and the policies needed to encourage change 50,1%

(3) Focus on getting the widest possible international actions on climate 39,5%

(4) Consolidate the Emissions Trading Scheme 25,5%

(5) Do cost-benefit analyses of all new proposals 24,2%

(6) OTHER 10%



The best way to fight climate change should be to make further progress on implementation of renewable energy sources and energy efficiency supporting measures. Keeping Europe at the forefront of energy technologies is essential. Climate change policies at EU level and in international matter are mentioned a lot, especially to fulfil the Kyoto targets and set second generation of Kyoto targets, respectively similar long-term targets (e.g. 30% at 2020 or 50%, 80% for 2050). The EU Emission Trading Scheme is taken into account quite often, especially in terms of widening the scheme for other main polluting sectors, such as transport or buildings. Once again, a shift of subsidies from fossil fuels and nuclear to renewables is supported.

10. What is important for the further development of clean and renewable energy sources in the EU?

(1) Define long term targets and an action plan to promote renewable energy 61,2%

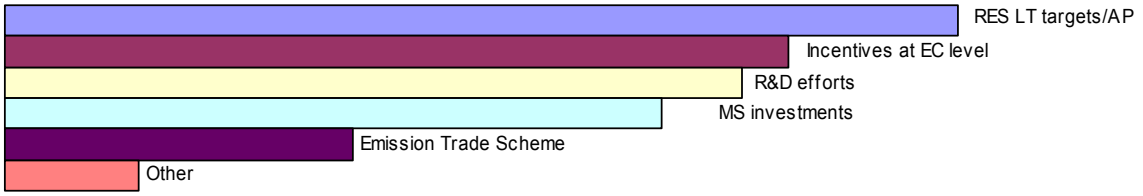
(2) Introduce incentives at Community level 50,4%

(3) Increase R&D efforts within a Strategic European Energy Technology Plan 47,4%

(4) Reinforce Member State investments 42,2%

(5) Further develop the EU Emissions Trading Scheme 22,4%

(6) OTHER 8,6%



To set the long-term targets and action plans for renewable energy sources is the best way for the further development of renewable energy sources in the EU, including medium and long-term targets (mandatory if possible). The EU should increase the incentives at EU level for renewables, and more investment is needed from the Member States as well. Research and development of new renewable energy technologies is essential, thus the EU needs the EU Strategic Energy Technology Action Plan. Renewable energy should be better integrated into the EU Emission Trading Scheme.

E. Innovation and technology

11. What action should be taken at both Community and national level to ensure that Europe remains a world leader in energy technologies?

(1) Establish a Strategic European Energy Technology Plan 38,1%

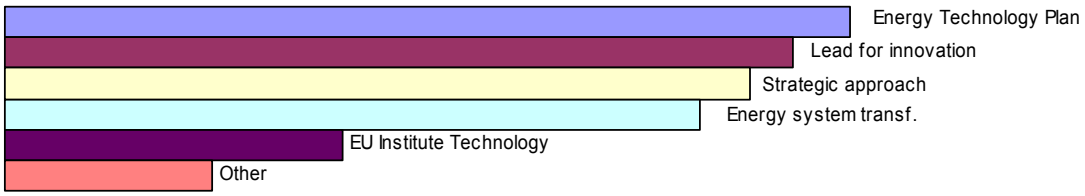
(2) Develop leading markets for innovation 35,5%

(3) Consider ways to finance a more strategic approach to energy research and innovation programmes and budget 33,5%

(4) Mobilise high-level stakeholders and decision-makers to develop an EU vision for the transformation of the energy system 31,3%

(5) Build upon the proposed European Institute of Technology 15,2%

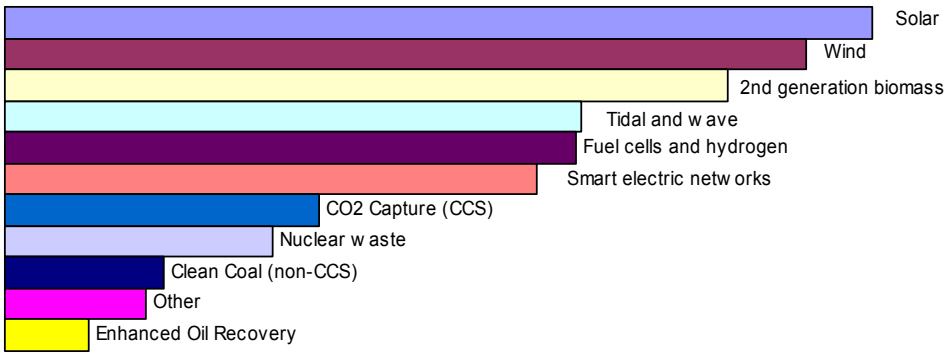
(6) OTHER 9,3%



The Strategic EU Energy Technology Action Plan, the development of leading markets for innovation, sufficient ways to finance a more strategic approach and cooperation with high-level stakeholders on the transformation of EU energy system are the most preferred actions to help the EU to sustain the leadership in energy technologies for the future. The development of technology platforms and more involvement of industry in research are essential. More financial resources from Community programmes for renewables and energy efficiency supporting measures are necessary. A supporting mechanism for shifting the technologies from research to the market should be developed.

12. Which topics/technologies should an EU energy technology strategy focus on developing?

(1)	Solar	67%
(2)	Wind	61,7%
(3)	Second generation biomass	55,8%
(4)	Tidal and wave	44,5%
(5)	Fuel cells and hydrogen	44,1%
(6)	Smart electricity networks	41%
(7)	CO2 Capture and Sequestration (CCS	24,3%
(8)	Disposal of nuclear waste	20,6%
(9)	Clean Coal (non-CCS	12,3%
(10)	OTHER	10,9%
(11)	Enhanced Oil Recovery	6,5%



Further development of renewable energy technologies is the most important priority. Solar technologies are the priority for future development. Wind energy has been the most developing technology in recent years. It is essential to ensure the continuation of this trend. Biomass technologies should focus on 2nd generation development; include biomass heating technologies, co-firing technologies (biomass with fossil fuels) and gasification technologies. Other renewable technologies taken into account should be hydro, especially micro and mini – generation techniques, and geothermal heat.

Fuelling in transport should focus more on biofuels, fuel cells and hydrogen, and alternative fuels. Electric transport vehicles and smart transport networks should be developed.

An important issue is the development of technologies leading towards higher energy efficiency and more energy savings. Combined heat and power, trigeneration, technologies for building renovations, "energy storage" facilities, and a smart electricity grid are discussed within these technologies.

As other technologies, future generation of nuclear technologies is mentioned as well, including the 3rd and 4th generation of reactors. Positions for nuclear energy are mentioned in all the questions of the questionnaire. The "for/against" opinions are very well balanced, in many cases a little bit disposed to supporting nuclear energy.

F. External policy

13. What should be the priority of a common external policy on energy?

(1)	Incorporate climate change, energy efficiency and renewable energy sources into EU external relations	70,9%
(2)	Develop new partnerships with neighbouring countries of the EU	25,9%
(3)	Develop new partnerships with important producer countries	20,9%
(4)	Develop new partnership with Russia	18%
(5)	Develop new partnerships with main consumer nations of the world	16,6%
(6)	OTHER	5%

There is a clear message that the EU should incorporate the sustainable utilisation of energy sources as part of the EU's external relations and its external energy policy. It should include also support for an international agreement on energy efficiency of all main consumers at least. Promotion of new energy technologies to developing countries and integration of greenhouse gas emission targets worldwide are essential as well.

The partnerships and energy dialogues with neighbouring, producing and consuming countries are also important. However, the EU should be focused more on using more renewable energy sources and energy efficiency measures within the EU.

14. How can the Community and Member States promote diversity of supply, especially on gas?

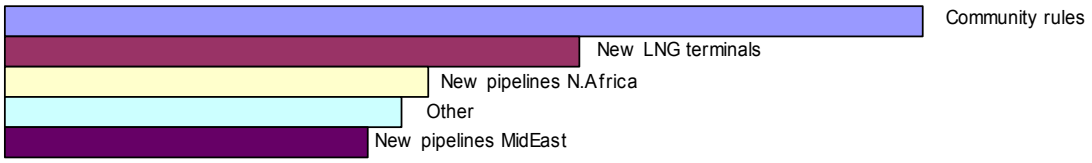
(1) By introducing Community rules, such as that Member States should be able to rely on at least three different supply sources for each energy which they import (oil, gas, coal 29,5%

(2) By building new LNG terminals 18,5%

(3) By building new pipelines to producer countries in (North) Africa 13,6%

(4) OTHER 12,7%

(5) By building new pipelines to producer countries in the Middle East and Central Asia 11,7%



Diversification of gas supply could depend on the introduction of Community rules for the different supply sources, new LNG terminals, and only then on new pipelines from North Africa and Middle East.

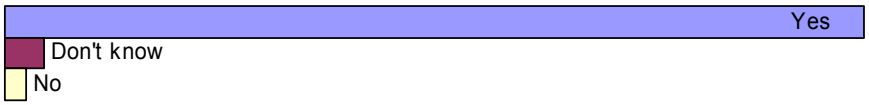
There are two main and clear messages within the "other" comments. First, the EU find alternative sources to substitute gas, particularly biogas and other renewable forms of gas. Second, the demand for imported gas should be decreased rapidly.

G. European Energy Policy

The questionnaire includes general questions about a future energy policy for Europe. It is very interesting to see that nearly 80% of respondents would like to have a new, common energy policy for Europe. The importance of energy issues in the Lisbon process is also clearly visible.

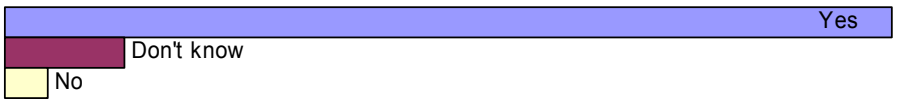
15. Do you agree that there is a need to develop a new, common European strategy for energy?

(1)	Yes	77,6%
(2)	Don't know	3,5%
(3)	No	1,9%



18. Do you think that greater attention to energy at both EU and Member State level can substantially help to achieve the goals of the strategy for growth and jobs (Lisbon process)?

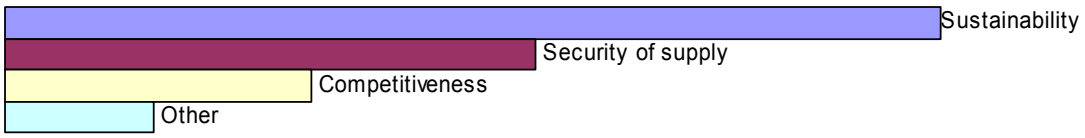
(1)	Yes	68,5%
(2)	Don't know	9,2%
(3)	No	3,3%



A clear priority message is to develop a new energy policy for Europe with the foundation of the three main objectives mentioned in the green paper. The balance between national and EU energy policies should be delivered. An energy policy for Europe should link with other important Community policies, such as transport, environment, fiscal and sustainable development. It should include long-term policy with targets.

16. What should be the core principles of European energy policy?

(1)	Sustainability	72,3%
(2)	Security of supply	40,9%
(3)	Competitiveness	23,6%
(4)	Other	11,5%

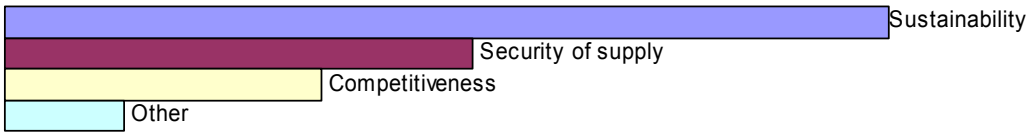


The Green Paper proposed a balance between the three main objectives of energy policy. The possibility of multiple choices for these two questions has shown the different weights put on each of the objectives. Sustainability is clearly preferred, followed by security of supply and competitiveness.

Sustainability objective should include the main principle of environmental protection, the polluter pays principle, strong support for energy efficiency measures, increased use of renewable energy sources, and new innovative technologies. This main objective should be supported by security of supply measures aimed at more use of domestic energy sources and energy security.

17. What should be the core principles of individual energy policy initiatives at Member State and regional levels?

(1)	Sustainability	68,2%
(2)	Security of supply	36,1%
(3)	Competitiveness	24,5%
(4)	Other	9,2%



The second result concerning the weight of the three main objectives is the difference between the European and national level. The European level shows strong importance of sustainability (for 77% of respondents), and greater doubts about the security of supply (for 41%) than at the national level. Energy policy at national level should be more oriented to fulfil objectives at national level. However, sustainability with the same principles as above is the preferred option again. Security of supply should be focused more to ensure the sufficient delivery of energy needs, stable electricity supply and decentralisation of energy production.