RESPONSE TO THE EC GREEN PAPER

TOWARDS A EUROPEAN STRATEGY FOR THE SECURITY OF ENERGY SUPPLY

Memorandum submitted by
The Royal Academy of Engineering

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Summary

- The issues to be addressed when considering an energy policy include: security of supply, environmental impact, national competitiveness and social concerns.

- Security of supply can be enhanced either by diversity of fuel type or by diversity of fuel sources. The transport sector's dependency on oil and electricity generation's dependency on natural gas leaves the European Union with diversity neither of type nor source of fuel. This is a potentially risky situation which demands politically stable relations with the Russian Federation and OPEC members.

- A fully liberalised and integrated internal market for energy requires an integrated distribution system which should ensure better use of resources but could result in reduced diversity and increased dependency for Europe as a whole on fewer large suppliers.

- The proposed use of taxation for environmental rather than security of supply aims is desirable and understandable. A harmonised EU energy tax must reflect as far as possible real environmental costs. The most robust and acceptable solution that would accurately reflect emissions is believed to be a tax based on the carbon content of the primary fuel. Any such tax should be transparent with all revenue raised re-circulated into low-carbon technologies including nuclear. The resulting diversification will have a positive impact on security of supply and help ensure that the Kyoto commitments are met.

- The energy industries are relatively mature and recent liberalisation has significantly intensified competition. Any increased taxation is likely to be mainly passed to the users. Preventing this by regulation may well lead to supply insecurity, as experienced in California. Governments may view investment in more secure and sustainable energy supplies as a social rather than current user cost.

- Collaborative action demands a consensus amongst the stakeholders as to the problem and its solution following rational debate. The task of agreeing a policy for Europe as a whole is perceived to be particularly difficult in the light of nationalistic protection of indigenous energy sources by individual Member States and opposition to centralised policy and tax harmonisation.

Introduction

The Royal Academy of Engineering welcomes the publication of the Commission's Green Paper *Towards a European strategy for the security of energy supply* and the opportunity to respond to it.

The responses received from Fellows included general comments about the Green Paper as well as answers to the thirteen specific questions posed. Accordingly, this response deals with the paper generally before presenting the detailed responses to the questions set in the Commission's Green Paper.

SECTION 1

General Observations

The opportunity afforded by the Green Paper to initiate a dispassionate discussion on all areas of energy was welcomed. While some respondents felt that the paper was mis-titled, given the strong environmental arguments put forward, all agreed that environmental issues are particularly important and will become a major driver in policy decisions. Nevertheless, such concerns can run counter to the interests of security of supply and a balance needs to be found between the competing issues.

The Green Paper contains a good analysis of the European energy market, its strengths and weaknesses. The fact that the paper dealt with all forms of energy, including the transport sector, in a holistic manner was welcomed, as was the fact that it considered a realistic timeframe of 20 to 30 years. Although containing nothing particularly new, the paper seized the opportunity to restate the facts. Security of supply has not been debated seriously since the oil crisis and it is now time to reopen that debate and to take on the added importance of environmental factors.

Except in the case of the Euratom Treaty, security of supply has been a matter for Member States rather than Europe collectively. This has led to diverse situations among Member States depending on their natural resources with differing attitudes to market regulation, energy taxation and subsidy policies.

The current international market for energy is dynamic, diverse and complex. Issues of security of supply therefore become not simply a matter of dependency but are wrapped up with the risk and impact of disruption.

Long term security of supply objectives often run counter to international competitiveness objectives and environmental objectives. While respondents noted that this is acknowledged in the Green Paper to some extent, some felt that the need for short-term competitiveness would be a stronger driver than anticipated.

The Green Paper expressed a variety of views and questions were posed aimed at policy considerations for Europe as a whole. However, a number of respondents felt that indigenous energy supply is a national matter and that centralised policy and tax harmonisation would be strongly opposed especially by those Member States which have access to their own energy resources. If this is the case the most productive role that the European Union could perform is to promote the debate between Member States on issues such as primary energy trade patterns, global warming and increased sea-levels and test what reactions Member States prefer. It could then set its R&D priorities in the energy sector, which do not require the unanimity that central EU initiatives do, accordingly.

SECTION 2

The Academy's responses to the Commission's thirteen questions are set out below:-

1. Import Dependency

Can the European Union accept an increase in its dependence on external energy sources without compromising its security of supply and European competitiveness? For which sources of energy would it be appropriate, if this were the case, to foresee a framework policy for imports? In this context, is it appropriate to favour an economic approach: energy cost; or geopolitical approach: risk of disruption?

1.1. The EU imports many commodities and there is no reason why it should not import energy. That trade in energy should be driven by economic principles within a framework of world trade agreements. However, the facts presented in the Green Paper conceded that increasing dependency on external energy sources for Europe as a whole was unavoidable and it regarded this as an undesirable situation.

1.2. Security of supply is affected by the risk of disruption to supplies, so can be enhanced either by diversity of fuel type or by diversity of fuel sources. Provided there is diversity of fuels and supply sources, an increase in dependency in one or the other could be supported. However, such a situation might entail the need for extensive risk management measures to be undertaken by appropriate bodies.

1.3. Given the growing dependency and lack of diversity in Europe's supply of natural gas from Russia and oil from OPEC countries, emphasis should be placed on how to maximise the stability of political relationships. The world market for energy is likely to see increased competition for supplies as underdeveloped economies begin to grow and securing supplies on a long-term basis will become more important.

1.4. In terms of the risk of disruption of particular energy supplies, stockpiling has a role to play and is addressed in section five. The consequences of disruption

could also be mitigated by the continued use in a 'defensive' role of certain fuels such as nuclear energy and clean coal technologies.

1.5. The risk of physical disruption of supplies should be evaluated and, if necessary, engineering solutions posed. A good example of this approach is oil and gas exporting states in the former Soviet Union actively participating in the Interstate Oil and Gas Transport to Europe (INOGATE) technical assistance programme for oil and gas transport to Europe.

2. Liberalisation and a Co-ordinated EU Energy Policy

Does not Europe's increasingly integrated internal market, where decisions taken in one country have an impact on the others, call for a consistent and co-ordinated policy at Community level?

2.1. Respondents called into question the premise that each Member State's energy market had direct influence on the others, but suggested that it was the international energy market that set the prices which the European internal market followed. World market forces have always prevailed. Similarly, there has been little evidence that differing energy prices across Europe have altered patterns of consumption significantly. This would suggest that a co-ordinated policy at Community level is unnecessary.

2.2. A fully liberalised internal market for energy should ensure better use of capacity and better integration of the relevant distribution networks. However, there is a danger that such a liberalised market might be more homogeneous, thus leading to reduced diversity and hence increased dependency. Because of the physical aspects of the energy transportation networks, a fully liberalised market could be detrimental to Member States at the edges of the network due to the higher costs of transport and higher capital costs for infrastructure. This would suggest that some co-ordinated policy on infrastructure might be beneficial.

2.3. Each energy source has its own advantages and disadvantages making co-ordinated policy more difficult. An integrated market needs an integrated distribution system and this would be expensive and difficult to implement in

the case of electricity. Considerable development work would need to be undertaken to cover reinforcement of the network, controllability, fault currents, stability etc. Co-ordinated policy at a Community level in this case should focus on forming an umbrella set of standards allowing effective interworking. Studies of the United States system would provide a good analysis of the pitfalls and advantages to be gained.

2.4. In general, a wariness exists over the idea of co-ordinated Community policy if that means the EC taking an active role in the management of energy markets. There is a perception that the record of co-ordinated policies at EU level has not been particularly good but it is nevertheless accepted that co-ordinated policy to ensure a consistent and transparent market is desirable. The EU has an important role to play in encouraging dialogue between Member States in these difficult but important areas.

3. Energy Taxation and State Aid

Are tax and state aid policies in the energy sector an obstacle to competitiveness in the European Union or not? Given the failure of attempts to harmonise indirect taxation, should not the whole issue of energy taxation be re-examined taking account of energy and environmental objectives?

3.1. Views were mixed as to whether taxation on energy products would be an obstacle to competitiveness. The two extreme examples cited were the United States, which has always pursued low energy costs, and Japan with high energy costs. In comparison, neither country seems to have suffered unduly in terms of competitiveness. A close study of these scenarios might lead to a better understanding of how higher energy prices would affect European competitiveness.

3.2. The introduction of Europe-wide energy taxes is considered to be damaging to European competitiveness to some extent in comparison with the rest of the world, but there is justification for the introduction of an emissions based tax on environmental grounds. Once an energy strategy has been determined, including environmental objectives, taxation policy should be a component to reinforce the strategy. Any such taxation should be transparent with all revenue raised re-

circulated back into low-carbon technologies. As state aid would also be a legitimate tool to reinforce the overall energy strategy, it could work hand in hand with the taxation policy.

3.3. In terms of harmonisation of energy taxes, the Green Paper showed that there was a significant variability between Member States at the time of writing. Should Member States decide to move forward on the basis of enhanced co-operation then there could be a risk of distortion to the market due to differences between those countries that take part and those that do not. Given the recent political manoeuvring by certain Member States over harmonisation of taxes, it was felt that the possibilities of achieving an EU wide solution to energy taxes were low.

3.4. There was a consensus that if an energy tax were to be introduced on environmental grounds, it would be essential for it to be based on real environmental costs, including those associated with greenhouse gas emissions and the carbon content of the energy source. If implemented fairly and transparently, this would not impede competitiveness to any great degree. Some respondents argued that “carbon trading” would be more effective than a “carbon tax”, but the result would be the same in both cases; to internalise the external costs of emissions and encourage a switch towards low environmental impact technologies.

3.5. Fiscal policy can be used to influence the development of markets and is a legitimate tool of governments. The proposed use of taxation in the Green Paper is for an environmental rather than security of supply aim, but respondents agreed that this was a desirable and understandable aim.

4. Ongoing Dialogue with Producer Countries

In the framework of an ongoing dialogue with producer countries, what should supply and investment promotion agreements contain? Given the importance of a partnership with Russia in particular, how can stable quantities, prices and investments be guaranteed?

4.1. The detail of supply and investment agreements is a commercial matter for the companies involved. The role for the EU in this area should be to maintain good political relationships with energy producing countries, to ensure that a favourable climate for investment is maintained and that the uncertainties due to different legal frameworks are reduced.

4.2. Although geopolitical issues are important in securing consistent energy supplies from producer countries outside the EU, some respondents warned that it could not be a guarantee against disruption of supply. For the most part, maintaining good relations and commercial stability would always be in the interest of producer nations. However, experience in the past with OPEC shows that stability cannot always be taken for granted.

5. Strategic Storage

Should more reserves be stockpiled - as is already done for oil - and should other energy sources be included, such as gas or coal? Should the Community take on a greater role in stock management and, if so, what should the objectives and modalities be? Does the risk of physical disruption to energy supplies justify more onerous measures for access to resources?

5.1. Stockpiles of strategic fuels may have a role to play and respondents commented on their potential to offset disruption of supplies. However, some respondents noted that the maintenance of large stockpiles would signal that the EU had less confidence in its ability to maintain smooth political relationships with producer nations. On the other hand, if disruption of supply is threatened, stockpiles may strengthen the EU's hand when negotiating, but only if stockpiles are large enough and the supplier cannot find another buyer.

5.2. The prospects for stockpiling different fuels are varied as are the security of supply issues for each of them.

5.2.1. Oil has been subject to adequate stockpiling since the mid 1970s when the International Energy Agency requirement of holding the equivalent of 90 days net imports was implemented.

5.2.2. The compact nature and high energy content of uranium make it physically suitable to stockpile. Nuclear generators and operators of fuel cycle plants already maintain stockpiles of uranium at various stages of production as part of normal operating practice. Therefore, the need for active stock management by either the EU or Member States does not arise.

5.2.3. Coal is relatively easy to stockpile and there is the possibility of maintaining long term strategic reserves underground if European pits can be kept in usable condition for longer term emergencies. However, as coal is so widely traded, the circumstances in which a strategic coal reserve would have to be drawn upon would be particularly rare. New technologies such as fluidised bed furnaces in coal fired stations that can accept more than one fuel in varying proportions also help to reduce the impact of disruption to coal supplies.

5.2.4. Natural gas presents the most challenging situation with respect to stockpiling. The transportation of natural gas is expensive and consequently a small number of producing countries have the major share of the European market. Gas storage is similarly expensive. The Commission should focus on securing competitive access to gas storage throughout the EU. This would help to optimise the use of existing storage facilities.

5.3. Overall, respondents felt that current stockpiling arrangements were adequate with only the gas sector suffering from difficulties in securing the storage needed. Some respondents were concerned that the additional cost of maintaining strategic reserves would necessarily be passed on to end-users.

6. Energy Transport Networks

How can we develop and ensure better operation of energy transport networks in the European Union and neighbouring countries so as to enable the internal market to function properly and guarantee security of supply?

6.1. Oil and Gas

6.1.1. Respondents had little to say concerning the operation of the INOGATE network for oil and gas transportation which, according to the Green Paper, already has a programme of upgrades and interconnections in progress.

6.2. Electricity

6.2.1. Open network access and transparent pricing across the EU would promote free trade within the electricity market. Active measures to remove barriers to access are important and there is a need for adequate and reliable transmission capacity and appropriate cross-border mechanisms. For example, the lack of interconnectors between grids has impacted directly on the prospects for a fully integrated market for electricity. EU bodies could play an important role by creating a favourable climate for investment and, where appropriate, providing direct financial support.

6.2.2. There are significant engineering issues to be addressed in the expansion and interconnection of current electricity grids across the EU and there is a danger that EU enlargement will be detrimental to the stability of networks. Practical and commercially viable solutions must be found to problems such as stability, fault currents and controllability before a fully liberalised market can be realised. Individual countries might want to “defend” themselves to ensure their own level of security. This would then have a detrimental effect on the stability of the weaker systems and inhibit a free market. There is a significant role for the EU to play in establishing mechanisms and standards for the interconnection of grids and in establishing an environment where it is commercially attractive to invest in strengthening current systems in the applicant countries.

6.2.3. Development of renewable energy is dealt with later in the Green Paper, but it should be noted that development of the electricity grid would help significantly. Access to the grid is a major concern for producers and interconnection between grids could help to smooth the peaks and troughs associated with different types of intermittent renewables on the network. This is already happening with the announcement of a new interconnector between the UK and Norway to allow better use of UK generating capacity to help supply Norwegian base load demand, releasing some Norwegian hydro capability to satisfy peak loads in either country.

7. Renewable Funding

The development of some renewable energy sources calls for major efforts in terms of research and technological development, investment aid and operational aid. Should co-financing of this aid include a contribution from sectors which received substantial initial development aid and which are now highly profitable (gas, oil, nuclear)?

7.1. The premise that development of renewables should be co-financed with a contribution from the currently mature technologies in the energy sector assumes that these areas are highly profitable. Respondents suggested that this is not the case since competition in the market has reduced profits. The idea of taxing a sector just because profits were high is flawed and would not be accepted by industry.

7.2. Many respondents suggested that if energy companies are profitable, renewables should be supported out of the normal tax raised from those declared profits. It will be just as important to pursue new, cleaner technology and efficiencies in the established energy sectors to meet Kyoto objectives and additional tax burdens would not be inducive to the required investments being made.

7.3. Section three accepted that taxation and state aid are legitimate tools for government to use to influence the development of markets. However, any such taxation should be transparent and fair, and would inevitably be passed on to the final user.

7.4. The Green Paper acknowledged and respondents noted that the proportion of renewables in the energy mix is highly unlikely to meet the EU and national targets with current policies in place. Given the general social benefits of promoting renewable resources, respondents agreed that there is an argument that society, as a whole, should finance the additional costs. However, if this is not possible, the best approach would be to establish support schemes that drive the cost of renewables down over time with the burden spread across all energy consumers.

8. Nuclear Issues

Seeing that nuclear energy is one of the elements in the debate on tackling climate change and energy autonomy, how can the Community find a solution to the problem of nuclear waste, reinforcing nuclear safety and developing research into reactors of the future, in particular fusion technology?

8.1. Respondents were pleased to see that the Green Paper acknowledged a role for nuclear energy in the future energy mix for the EU. Many respondents noted that nuclear energy accounted for approximately 35% of EU electricity generation in 2000 and cannot be entirely replaced by other non-carbon emitting generation. Unless nuclear energy remains at least at this sort of level, it is unlikely that the EU will meet its Kyoto targets.

8.2. Some respondents stressed that the problems associated with nuclear waste were those of public and political perception as much as technical. Solutions such as geological isolation have been shown to be scientifically and technologically credible for long term storage of high level waste (HLW) and the remaining problems appear to be societal. Regardless of the long-term prospects of nuclear generation, there is a significant and growing inventory of HLW so abandonment of nuclear generation would not mean that the political and social problems associated with waste disposal would become any more surmountable or less urgent. There should, therefore, be a concerted effort by the Community, Member States and the industry to present the facts and increase public understanding of the issues surrounding disposal of nuclear waste.

8.3. Some respondents raised concerns over the level of safety in some applicant nations, but all were content with the progress that the EU has been making to ensure that, on joining the Community, their regulatory activities will be on a par with those in the Member States.

8.4. Current EU expenditure on nuclear research appears to be aimed at fusion, decommissioning and future reactor technology in that order. If the civil nuclear industry is to remain viable over the medium term, this profile should be altered to give more importance to new reactor designs. There have been exciting developments in the field of reactor technology, which could deliver significant benefits if nuclear generation is expanded in the future.

9. Kyoto Targets

Which policies should permit the European Union to fulfil its obligations under the Kyoto Protocol? What measures could be taken in order to exploit fully potential energy savings, which would help to reduce both our external dependence and CO2 emissions?

9.1. Although the EU is a signatory to the Kyoto Protocol, the burden of meeting the Kyoto targets will fall to national governments. However, the EU does have a role to play in co-ordinating European efforts. Respondents felt that this could best be achieved through promotion of competitive markets, increased energy efficiency and use of low carbon fuels, all aspects of the market that are amenable to influence by effective regulation and fiscal policies.

9.2. Policies that might be adopted to permit the EU to fulfil its obligations under the Kyoto protocol are wide ranging and for the most part diverge from issues of security of supply. Policies suggested include *inter alia*:

9.2.1. Encouragement of clean, efficient and pervasive public transport that would be an attractive and practical alternative to car use. Policies which discourage or penalise car use, before alternatives are in place, would be unlikely to work and would be unpopular as well. A framework that encourages investment in transport infrastructure should be used.

9.2.2. The Green Paper acknowledged that nuclear energy is likely to be an important factor in meeting Kyoto targets. Policies should be in place that recognise nuclear energy as a low carbon technology and that encourage the maintenance or replacement of existing nuclear facilities. If nuclear capacity is closed down, it should be noted that its replacement entirely with renewables would achieve a zero net gain in terms of greenhouse gas emissions.

9.2.3. The Green Paper acknowledged that coal would continue to feature heavily in the future European energy mix. There are still large gains to be made in efficiency and policy instruments should be put in place to ensure that new coal generation takes advantage of all the technical advances that have been made over the years. Clean coal technology also has a significant role to play.

9.2.4. Renewable energy sources can make a significant contribution, but existing policies will not encourage their full exploitation. Cross subsidisation and fiscal policies as discussed earlier in the paper should be implemented.

9.2.5. The major contribution to meeting Kyoto targets is likely to come from energy efficiency measures, controlling the demand side of the market. Increased use of CHP, programmes to replace domestic heating boilers and encouraging the uptake of thermal solar heating all have roles to play.

10. Alternative Fuels

Can an ambitious programme to promote biofuels and other substitute fuels, including hydrogen, geared to 20% of total fuel consumption by 2020, continue to be implemented via national initiatives, or are co-ordinated decisions required on taxation, distribution and prospects for agricultural production?

10.1. Respondents were concerned at the mention of hydrogen in this context and pointed out that the question appeared to be aimed at the environmental side of the Green Paper, whereas, hydrogen is not necessarily a low-carbon option. The most cost-effective route to hydrogen production currently available is reformation of fossil fuels. Unless renewable energy is used to hydrolyse water or carbon is captured from the reformation process, hydrogen use does not contribute to the environmental or security of supply aims of the Green Paper.

10.2. Economically competitive use of biofuels and substitutes is many years away and the target of 20% of total fuel consumption by the year 2020 is very ambitious. This objective could only be met with the full support of the oil companies in providing infrastructure and the development of substantial low-carbon emitting power generation (presumably including nuclear) to provide the energy required for pyrolysis.

10.3. In terms of promoting the use of biofuels within the Community, it has already been stated that whereas a co-ordinated and harmonised approach to taxes might be effective, it would certainly be resisted by a number of Member States.

10.4. Respondents commented that climatic and soil conditions varied so much over Europe, that a co-ordinated approach to agricultural policy would not be effective and that Member States should be allowed to continue with their own policies.

10.5. Overall, the effectiveness of Member States pursuing uncoordinated initiatives would be less than a fully co-ordinated programme. However, it would probably be more acceptable if Member States carried out work which they deemed to be high priority but with the work supported by the EU as a whole.

11. Energy Saving in Buildings

Should energy saving in buildings (40% of energy consumption), whether public or private, new or under renovation, be promoted through incentives such as tax breaks, or are regulatory measures required along the lines of those adopted for major industrial installations?

11.1. Considerable energy demand reductions could be made with a concerted effort to improve the energy efficiency of buildings. As discussed in section five, fiscal policy is a legitimate tool for governments to use in attaining these aims, so should not be ruled out.

11.2. As energy efficiency measures should produce their own returns, it was suggested that the most effective measures could be introduced without resort to tax benefits. However, historically it has been difficult to realise the potential

for energy saving on the demand side and hence targets should be set accordingly.

11.3. Energy efficiency labelling of domestic appliances has been particularly successful and is acknowledged in the Green Paper. Nevertheless, there is still an urgent need for greater public understanding of the potential benefits to be gained through efficiency measures. Little else has been attempted in the domestic market as tax incentives have less meaning to private individuals.

12. Energy Saving in Transport.

Energy saving in the transport sector (32% of energy consumption) depends on redressing the growing imbalance between road and rail. Is this imbalance inevitable, or could corrective action be taken, however unpopular, notably to encourage lower use of cars in urban areas? How can the aims of opening up the sector to competition, investment in infrastructure to remove bottlenecks and intermodality be reconciled?

12.1. The current situation *vis a vis* the growing use of personal transport and the inevitable increase in congestion cannot be sustained indefinitely. The investment required to create a suitable transport infrastructure to replace personal transport is probably more than any government is willing to spend. However, the alternative of punishing road users financially would be unpopular, and possibly unsustainable for an elected government. In the UK the fuel duty escalator appears to have been abandoned principally because of public pressure. Congestion charges have been examined and may yet be introduced, but the debate surrounding such policies has been heated.

12.2. It is postulated that in a free market economy, even if massive investment were channelled into transport infrastructure, demand for personal transport would still rise, though probably at a lower rate. Correspondingly, encouraging energy efficiency and alternative fuels would be equally important strategies. Policies to regulate traffic flow and speed could make a further contribution.

12.3. As discussed in section ten, care should be taken when promoting fuel switching. Unless electricity and hydrogen are obtained from low-carbon

sources, the effect on pollution would only be local and there would be a net increase in greenhouse gas emissions due to inefficiencies in electricity generation, transmission and hydrolysis processes.

12.4. Not withstanding the arguments above, some sort of charging based on emissions from private transport should be examined. Reflecting the views expressed earlier in this paper, the financial arrangements should be transparent with all revenues being directed to research and development or subsidising of clean fuels. The EU might have a role to play in co-ordinating this sort of development programme.

13. Collaborative and Long-term Visions

How can we develop more collaborative visions and integrate the long-term dimension into deliberations and actions undertaken by public authorities and other involved parties in order to evolve a sustainable system of energy supply. How are we to prepare the energy options for the future?

13.1. Collaboration and integrated policies might be possible but an interventionist EU energy policy would be unlikely to succeed. In particular, some respondents were cautious of the idea that the EU might set targets for fuel mix in the future. In a dynamic world market, this approach may run counter to security of supply objectives by ruling out fuel switches which would otherwise be commercially driven.

13.2. Reiterating points made earlier, EU institutions and particularly the Commission have a significant role to play in maintaining and promoting the good relations currently enjoyed with the majority of its external energy suppliers. As most Member States share these suppliers, this is an area where Community led collaborative action would be least contentious.

13.3. There appear to be mixed messages coming from the market on the price elasticity of fuel. On the one hand, as petrol prices have risen there has been no change in traffic patterns, and on the other, there have been popular protests at the rate of fuel duty. This indicates that there is a lot more that could be done to educate the general public about the real cost of energy. The EU could secure a

role in this by encouraging a co-ordinated approach to the internalisation of external costs, including the cost of emissions and promoting public debate on the issues.

13.4. Collaborative action will only be possible if there is consensus among the stakeholders as to the nature of the solution. The EU is currently doing a significant amount of work monitoring energy trends (as this Green Paper indicates) and this should continue in order to enable better-informed decision-making both by public authorities and market participants. Part of this process should be to move the debate beyond emotion by seeking different views, developing a more shared factual analysis of the problem and the reasons why particular approaches are advocated or rejected.

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