

RESPONSE TO SECURITY OF SUPPLY GREEN PAPER

INTRODUCTION

Energy is important. It is a crucial component to economic and societal health as well as future prosperity. Energy demand is a derived demand. Energy demand and usage are influenced by every aspect of life. In approaching this consultation, we have discussed the composition of an energy system, its parameters, direction, governance and interaction with society, economy and the environment. The objective of this response is not to prescribe specific measures in the pursuit a particular objective, but to provide a framework in which energy policy is defined and to suggest effective mechanisms to support and enhance an energy infrastructure are identified. Attention was, therefore, not given to any individual fuel sources, technologies and policies as we believe these will require further stakeholder dialogue. In this context, the conclusions and recommendations made below can be applied throughout the EU, and beyond.

CONCLUSIONS AND RECOMMENDATIONS

This consultation provides a welcome opportunity to redefine energy policy and to examine its interaction with society, the economy and the environment at a system level. Analysis and policy formulation at this level is a step change from previous policies that have looked at maintaining access to fuel supplies, environmental regulation and fiscal measures but without addressing the complexity, varying levels of interaction and potentially conflicting objectives within a wider energy infrastructure. The objective should be to assess EU and global energy prospects; the long-term implications for Europe's energy infrastructure; the formulation of robust policy objectives; and the introduction of mechanisms to ensure their attainment. It is therefore an important first step in a wider consultative process. A 'single shot' review, however well conducted, will identify many uncertainties and policy conundrums. These should be addressed in future in a similarly open and transparent manner, utilising effective interaction with key stakeholders.

RECOMMENDATION: *The Security of Supply policy must be seen as the first step in a wider consultative process which should aim to identify policy objectives, initiatives and mechanisms to enhance Europe's energy infrastructure and its robustness to future energy and environmental uncertainties.*

Policy timescales

It is most difficult to predict the composition of society, the economy, the environment, energy networks and even the shape of governments in 2050. For example will global warming still be an issue and important policy driver in 2050? Will the EU then comprise a network of devolved regional assemblies and what impact might this have on policy co-ordination? What are the likely impacts of economic instability on a national, European and global scale upon energy and the environment? What will the transport network look like? How might public attitudes and behaviour change? In particular, the pace and direction of technological change are most difficult to anticipate. Therefore, it is important that energy policy is periodically reviewed and assessed by policy makers and appropriate stakeholders at strategic intervals. This enables stakeholders to adapt to instances of risk and / or aversion that may occur in the period to 2050 as well as providing opportunities to initiate new policies to achieve energy, environment and social objectives. The analysis should identify milestone dates prior to 2050 – for example. Agreed international energy and environmental milestone dates such as 2010-12 (arising from the Kyoto Protocol) and 2020 (the likely time when much of the existing European nuclear energy production will have ceased). Capital stock rotations of energy using and supplying equipment should be identified as providing key opportunities to affect, assess and formulate initiatives. Capital stock rotations, being sector specific, provide opportunities to affect investment initiatives with regards to energy supply and usage. These rotations also enable standards and regulations to be either enhanced or revised in accordance with the market and policy pressures that are faced at a particular point in time.

RECOMMENDATION: *An infrastructure focused energy policy requires continual assessment, and review at strategic intervals to ensure agreed objectives are attained. Capital stock rotation rhythms provide*

opportunities for standards, regulation, conservation and abatement capital investments to be initiated.

The Role of European Institutions

The Union's energy policy objective of ensuring secure and diverse supplies of energy at competitive prices hinders a more detailed and richer understanding and analysis of the energy system and infrastructure which comprises capital, human and natural stock. Energy policy should encapsulate supply and demand considerations with the aim of ensuring the environmentally responsible provision and management of energy in all its forms. This requires a shift in current analysis which focuses on energy flows to one that focuses on enhancing energy assets in an energy infrastructure.

RECOMMENDATION: *The role of the European institutions should be to:*

- *ensure appropriate mechanisms and tools for the incorporation of environmental externalities into the decision making process;*
- *facilitate stakeholder dialogue and commitment;*
- *promote the environmental and financial needs and benefits of energy conservation, and;*
- *ongoing analysis and enhancement of assets that comprise the energy system and its infrastructure.*

Security of supply considerations

A degree of self-sufficiency in energy production is seen as essential to maintain national economic and social stability as well as future prosperity. However, it is important first to define – as rigorously as possible - the concept of security of supply and its possible implications on policy objectives. In the current context of energy policy, security of supply is too often viewed as maintaining access to sufficient supplies of a particular energy source - such as oil - which is measured by access to barrels of oil. However, in the context of an energy system and its embedded infrastructure, which reflects more accurately the complexities and interaction between energy suppliers and energy users, security of supply could be defined as the maintenance of continuous illumination. It is therefore inappropriate for security of supply considerations to be addressed primarily through a market-based approach as this is unlikely to address the crucial strategic issues and the interactions of energy markets.

RECOMMENDATION: *The concept of security of supply requires rigorous definition prior to the identification of appropriate policy objectives.*

Economic indicators

Present policy currently attempts to create a synergy between the three traditional 'pillars' - security of supply considerations, maintaining economically efficient prices and environmental protection. Market mechanisms, however, do not necessarily provide adequate signals to reflect these policy objectives or to provide direction for future policies. Market mechanisms focus on the price per unit of a particular commodity and may not adequately maintain the requisite energy infrastructure. Furthermore, over-emphasis on maintaining market based prices distorts energy and environment policy objectives, as they do not incorporate externalities and thus do not induce industrial and domestic energy users to invest sufficiently in energy efficiency and conservation technologies and techniques. Therefore, greater emphasis should be placed on internalising the costs of environmental externalities.

RECOMMENDATION: *Further work is required to ensure that appropriate mechanisms are established to assess energy, environment and security of supply considerations in a systematic manner. Some policy decisions and measures might well assist simultaneous achievement of all three objectives; others will involve difficult trade-offs between these, which should be made more explicit.*

Economic incentives

Cost-effective and environmentally benign abatement technology should be incentivised, by a range of mechanisms (including regulation, minimum standards and financial means) - to ensure its optimum take-up. Because both energy production and energy use are capital intensive - a fiscal regime that encapsulates environmental externalities as well as providing incentives for environmentally benign investments should be established. There should be a more level playing between investment in new supply and more efficient use on the demand side. In particular, policy should aim to reduce the relative selling price of energy conservation and emission abatement

technologies and goods. Energy suppliers have various fiscal incentives to invest in new capital. But much of the demand side faces fiscal barriers. Particularly for the residential sector capital for investment in energy efficiency measures has to be found from taxed income, and measures are priced including unreclaimable VAT. This increases capital investment costs in cleaner, more efficient and 'best practice' equipment. This distortion must be addressed.

RECOMMENDATION: *Economic and fiscal incentives and disincentives must be addressed to ensure the effective take-up of cleaner, more efficient and 'best practice' equipment, supported by appropriate information and awareness measures.*

Transparency

Transparency facilitates the dissemination of energy and environment information, encourages and influences stakeholder investment decisions. This is why we strongly support the Energy Performance of Buildings Directive. To encourage awareness of the environmental impact of companies, environmental performance reporting should be made mandatory. This will affect stakeholder investment decisions and provide organisations with incentives to invest in energy conservation measures particularly if this initiative is placed in the wider context of energy and environment performance league. To further increase awareness of energy performance, the emissions at point of source should be displayed on residential energy bills. This, in conjunction with more focused information on residential energy saving measures could motivate increased uptake of residential energy efficient measures. This approach could be extended to much more widely – e.g. emissions on airline tickets. The advantage of such transparency is that it provides individuals and organisations with regular information about the environmental impact of their actions and inaction, which provides incentives to reassess energy usage and investment decisions in emission abatement technologies and / or practices. This could initiate some behavioural changes and boost demand for cleaner, more efficient technologies which over time could drive down their prices and further incentivise compliance with energy regulation and standards.

RECOMMENDATION: *Methods for increasing transparency should be implemented to ensure societal commitment to energy and environment objectives and the take-up of appropriate investments.*

Knowledge and skills infrastructure

Skilled individuals and manufacturers are essential components in the energy system and its infrastructure. They design, install, produce and service energy consuming producing equipment. Education and training needs to be enhanced. For manufacturers the energy conservation and emission abatement aspects of their R&D programmes should be encouraged through fiscal incentives. They are key stakeholders and should be fully engaged in periodic reviews of energy policy, standards and regulations.

RECOMMENDATION: *Commercially funded R&D into energy conservation and abatement technologies should be induced through fiscal incentives. Education and training should be enhanced to provide a skilled and flexible work force.*

Transport

This sector's impact on energy demand emissions requires societal and governmental commitment to support capital investment, behavioural changes, internalisation of environmental externalities and incorporation of abatement technologies. Transport costs remain relatively cheap as a percentage of disposable income and appear to provide insufficient incentives for alterations to usage patterns. Therefore, the fiscal system should be modified to account for the energy and environmental impact of transport costs with the aim of encouraging transparency and affecting usage alterations. Provision of enhanced and high quality public transport services underwritten by substantial financial subsidy must be a high priority for many decades.

RECOMMENDATION: *Transport requires much wider stakeholder engagement and agreement of objectives and initiatives. Emphasis should be placed on internalizing the environmental costs of transportation and on accelerating provision of high quality public transport.*