

# EUROPEAN PARLIAMENT



## COMMITTEE ON INDUSTRY, RESEARCH AND ENERGY

### PUBLIC HEARING

### "Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy"

### *POSITION PAPERS :*

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*European Parliament  
Brussels, 12 September 2006, 14.30 - 18.00*



AEGPL  
European LPG Association

# A European Strategy for Sustainable, Competitive and Secure Energy

## The LPG Industry's Contribution to the EU Green Paper on Energy

Executive summary

August 2006

AEGPL (the European LPG Association) shares and supports the European Commission's intention to develop a comprehensive new energy strategy and believes that **LPG (Propane/Butane) can make a tangible contribution to the European Union's efforts** to address each of its 6 primary energy concerns.

### 1. Energy for growth and jobs in Europe: completing the internal European energy market

The energy sector can make a key contribution to economic growth and job creation in Europe. AEGPL enthusiastically supports the Commission's commitment to the completion of the internal energy market. Only through open and transparent markets with a practical fiscal and regulatory framework can the potential of Europe's energy sector be realized. The LPG sector is already liberalised, has contributed to growth and jobs in Europe for over 70 years and will be able to contribute even more in the future.

### 2. Security of supply

In an increasingly uncertain geopolitical environment, the importance of ensuring the security of Europe's energy supply is readily apparent. AEGPL welcomes and shares the EU's commitment to this objective and supports the development of supply and spare storage cooperation between Member States for both conventional and alternative energies. Regulations in this domain should of course be practical and proportional to their objectives. LPG can contribute to a more secure supply since it will continue to be widely available within Europe for the foreseeable future and is easily stored for local use in the event of a supply disruption.

### 3. Diversification of the energy mix

The establishment of a more diverse portfolio of energies is a top priority for Europe. AEGPL therefore stresses the need to promote the development of clean alternative energies in parallel with renewables to complement conventional sources. AEGPL also supports the establishment of a European Energy Observatory to monitor the evolution of the EU-25 energy mix. LPG, an immediately available energy source, contributes to energy diversity both as a versatile energy in its own right and as a support for the development of renewable energy through hybrid applications.

### 4. Sustainable development

AEGPL welcomes the EU's efforts to promote sustainable development both in Europe and worldwide. Sustainable development is most effectively pursued by ensuring that energy sources are used for the applications to which they are best suited. Evaluation of different energies in terms of their impact on climate change and air quality improvement should be based on a complete life cycle analysis and should take efficiency as a key criterion. LPG is a clean, efficient and low carbon energy that can facilitate growth while minimizing human impact on the environment.

### 5. Innovation and technology

Clearly, technological progress is required to help Europe meet its energy challenges. The EU can contribute by working in partnership with the energy industry to fund the development of clean alternative energy sources where there is substantial room for innovation. The development of indigenous and decentralized sources that contribute to security of supply would be of particular value. Where appropriate, the EU should act to foster cooperation between complementary energy sources through the establishment of technology platforms. The LPG sector is a willing partner in innovation and has already made a substantial contribution through the development of hundreds of internationally recognized technical standards and best practices.

### 6. External policy

AEGPL supports the EU's ambition to speak with one voice in its dialogue with both producer and consumer countries. In particular, Europe should promote the worldwide dissemination of energy products designed to protect public health and the environment. AEGPL has developed many internationally recognized technical standards and best practices and LPG is used in a wide range of applications all over the world.

## 1. Energy for growth and jobs in Europe: completing the internal European energy market

### Internal market and competitiveness

- AEGPL is convinced that the **energy sector has a key role to play in job creation** in Europe. When evaluating different energy options, policy makers should take into account their relative contribution to employment.
- AEGPL agrees with the Commission's observation that **competitive energy will only be achieved with open energy markets operating on a level playing field**. To avoid hidden discrimination, Member States should apply equal treatment to all energies and all energy operators, except where special provisions are necessary to pursue a specific EU objective. **The completion of the liberalization of energy markets** (not exclusively gas and electricity) **should be vigorously pursued**.
- To reduce the volatility of energy prices, **a more diverse energy portfolio** is required. This should be developed by avoiding excessive dominance in the market by certain energies and by **promoting the development of clean alternative energies along with renewables**.
- **Market mechanisms**, reflecting real supply, production, and distribution costs for electricity and natural gas **should be respected**. Currently, distortion of end-user prices in some Member States leads to discrimination against certain companies and energy sectors, and must be avoided.
- When evaluating competitiveness and the contribution to growth of various energy sources, the Commission should **take into account all phases of the energy life cycle by means of a complete impact assessment** (possible hidden costs and inefficiencies must be included). It is important to recognise that certain energies, though apparently efficient in terms of end-use, may be less so once production and after-treatment costs have been taken into consideration.

### A regulatory framework that promotes accessible energy for the future

- European industry requires a **stable and practical European fiscal and regulatory framework** to attract and retain the long term capital investment that will be required to meet future energy demand. It is particularly important to **lower and minimize bureaucracy such as authorization procedures** for plant and storage facilities while maintaining technical standards and safety levels. Avoiding **disproportionate national regulations or constraints** will help keep Europe competitive.
- **Investments in network infrastructure should be subject to cost-benefit analysis** with the goal of providing citizens with access to energy at a competitive price.
- **Access to energy at reasonable prices** for all Europeans should be ensured to facilitate **local and regional development**.

## *LPG sector: Energy for growth and jobs in Europe*

With a share amounting to 1.6 % of Europe's total energy consumption<sup>1</sup>, **LPG already responds to the energy demand of more than 120 million EU citizens**, and has strong prospects for long term growth, giving it a genuine role in the global European energy mix.

It has a wide array of **applications** including **domestic space and water heating, cooking, lighting, industrial heating and automotive fuel**.

Given **appropriate fiscal and regulatory conditions**, **LPG will be able to make a significant contribution** to growth and job creation both within the industry and beyond.

The **LPG sector is already a competitive and genuinely liberalized market<sup>2</sup> that generates growth and jobs for Europe:**

- It is a **highly labour intensive sector** in comparison with other energies and therefore generates substantial employment for skilled labour. Growth of the LPG industry inevitably leads to a corresponding increase in employment;
- **LPG stimulates economic development in rural areas** because it is quickly and easily distributed to remote areas.

The LPG industry is comprised of **150,000 direct and indirect employees** and has contributed to economic and social growth in Europe for over 70 years.

The sector is predominantly composed of **SMEs** operating on a predominantly regional basis. LPG is a clean and efficient energy available to businesses and citizens all across Europe at a competitive price.

Additionally, Automotive LPG (Autogas) is the largest alternative fuel in Europe, distributed through a network of 17,500 filling stations to fuel **4,200,000 vehicles**.

The **LPG distribution network is highly flexible and already in place**, meaning the sector can achieve significant growth without the need for massive infrastructure investment.

## **2. Security of supply**

AEGPL agrees that it is essential to enhance security of supply within the EU.

- ➔ Energy **solidarity** should be ensured by **developing supply and spare storage cooperation between Member States**.
- ➔ Both the EU and Member States **should ensure that regulations are proportionate and sufficiently harmonized** to avoid imposing unnecessary constraints that could inhibit **storage and inland transport capacity** throughout Europe.
- ➔ Moreover, **genuinely renewable energies** (in particular, solar, wind, and hydro power) **should play an important role** due to the indigenous and decentralized nature of their production.

<sup>1</sup> 29 million Tons Oil Equivalent or 335 TWh in 2004 according to the World LP Gas Association's <sup>S</sup> statistical review of Global LP Gas <sup>2005</sup>.

<sup>2</sup> Some Member States are still managing selling prices in LPG sector (Spain and Belgium).

### *LPG: A model for a more secure energy supply*

A number of LPG's qualities make it an **ideal option to help address Europe's security of supply concerns**:

- **Huge reserves due to its dual origin** ( 60% from gas field extraction / 40% from crude oil refining): No reason to expect a decrease in **LPG's availability** in the foreseeable future;
- **Less vulnerability to supply disruption** due to its multiple origins and flexible supply chain (by boat, train and road);
- **Diverse set of supply sources** (geographically / by suppliers);
- **Fluid trading market** (short term contracts / small-large quantities) with many points of entry into the EU;
- **Wide range of storage options** (from small cartridges or portable cylinders to large bulk tanks).
- Effective **back-up fuel for renewable energy sources**, particularly those characterized by intermittency, thereby accelerating their development.

LPG offers clear **advantages to end-users**:

- Combining its high energy efficiency with its non-piped distribution network and storage, LPG offers the **highest energy reserve volume**;
- Each end-user maintains his/her own **energy storage capacity** which could be used as an emergency stock if needed;
- **High product stability** (essentially no product degradation).

LPG is also a **valuable energy resource in emergency situations**:

Rapidly operational in the wake of earthquakes, flooding, war, etc, thanks to its **portability**, **multi-purpose uses** and substantial energy reserve volume.

## 3. Diversification of the energy mix

AEGPL supports the diversification of the EU energy mix through the development of alternative and renewable energies.

→ It is crucial for the EU to **promote clean alternative energies able to play a real role both now and in the future**.

→ **The development of certain new sources and technologies** into robust and significant energies **will take time** due to the number of gaps to be bridged:

- Infrastructure will need to be built;

- Technological challenges have to be overcome;
  - Environmental impacts must fully be assessed and safety and operating practices developed.
- A **European Energy Observatory** could provide policy makers with accurate data to facilitate transparent comparison between the energy sectors and monitor the evolution not only of the EU energy market (including derivative markets) but also Europe's energy mix.
- By **monitoring the evolution of the EU's energy mix**, the **European Energy Observatory** would help decision makers to **avoid the danger of over reliance** on any one energy source at both EU and national levels. Member States should be able to **rely on at least three different supply sources** / imported energy. Another means of reducing the threat of excessive dependence would be to **establish a minimum number of energies to be used in each sector** (e.g. electricity generation, automotive sector, space and water heating...).
- Whether for clean energy products, energy efficient equipment or on energy saving technologies, **tax incentives are an effective and desirable means** of promoting the development of clean alternative sources and renewables.

### *LPG: An increasing role to play in the EU energy portfolio*

**As a clean and immediately available alternative energy**, LPG is ready to contribute, both now and in the long term to Europe's ambitions of ensuring a stable and diverse energy mix:

- LPG can **accelerate the development of renewable energies**;
- LPG is suitable for a **wide range of applications**, making it accessible to more people;
- LPG's transportability allows it to be **quickly and easily put into place without requiring costly infrastructure**;

Its properties allow for cheap and efficient switching **from natural gas to LPG and vice-versa**<sup>1</sup>.

## 4. Sustainable development

- As a basic principle, **energy sources should be used for the application to which they are best suited** in terms of reduction of greenhouse gas emissions, pollution and energy efficiency gains. AEGPL supports the **cost-benefit analysis** approach in any decision-making process.
- In terms of **climate change and air quality improvement**, energy choices should be based upon complete life cycle impact analyses using the following criteria:
- **All greenhouse gas emissions** and not only CO<sub>2</sub>;
  - The **main pollutants** (SO<sub>x</sub>, PM, NO<sub>x</sub>, radioactive wastes...).

<sup>1</sup> To switch from natural gas to LPG in the case of common end-users appliances, only the injectors and flexible hoses have to be changed. Furthermore, in many cases injectors for both LPG and natural gas are already supplied by the appliance manufacturer.

- AEGPL welcomes the EU's commitment to increased **energy efficiency** as it will lead to lower consumption, reduced emissions and less volatile price evolution. Measures taken to this end should **respect the following principles**:
- Any measure to enhance energy efficiency must be realistic, efficient, cost-effective, and should **avoid discrimination and distortion of competition**;
  - The primary focus should be on improving energy efficiency of **new equipment** since efficiency is better pursued by designing efficient new products than by adapting existing ones;
  - **Clear communication** on energy efficiency performance should be delivered by manufacturers of appliances and vehicles to enable consumers to make energy-conscious purchase decisions;
  - The European Commission should support **mass media communication about efficient and clean energies**. Said communication should clarify the definitions of "clean" and "green";
  - Energy efficiency improvements will best be achieved by widespread adoption of **advanced metering and monitoring devices** in appliances;
  - Similarly, the promotion of such devices **in vehicles** should be reinforced;
  - It would be useful to set up **harmonized minimum provisions for operators** (technicians, plumbers, energy advisors, installers...) working in the energy sector in order to foster efficient use of energy (faster and more complete implementation of available technologies and energies);
  - AEGPL continues to believe that **mandatory targets for green public procurement** of clean, efficient alternative energies and alternative fuels are a useful tool.

### *LPG: A clean alternative*

As a **clean and immediately available alternative energy**, LPG offers significant environmental advantages, particularly in terms of indoor and outdoor air quality. It is characterized by low particle emissions, low NO<sub>x</sub> emissions, low sulphur content and has very good results for as yet unregulated pollutants such as benzene, aldehydes, etc.

Though it is a fossil fuel, it is nevertheless a **low carbon alternative** to coal and oil. Indeed, LPG emits 12% less CO<sub>2</sub> than oil and 35% less than coal.

Its use should be strongly **promoted as a single energy or in combination with other energies such as renewables** (this is particularly pertinent as a back up energy for wind, solar or hydro power).

In addition, the LPG sector has a **track record of socially responsible practices** and has played an important role in social and regional development in Europe.

## 5. Innovation and technology

- Continuous **investments and an ongoing commitment to research and development** have enabled the energy industries to meet increasing technical challenges and rising demand.
- In formulating energy research policy, EU decision makers should ensure that **safety is a top priority throughout the energy product life cycle**.
- The EU should ensure that its **R & D investment** and support are directed towards those **energy sectors in which there is still substantial room for innovation and technological development**. For instance, the **development of more decentralised energies** that help address Europe's needs in terms of security of supply is an area of considerable interest.

- Furthermore, the EU should create **dedicated technology platforms that encourage cooperation** between complementary energy sources where appropriate.

### *LPG: A willing partner in innovation and technology*

Given the necessary support from public authorities, AEGPL is convinced that there is **significant room for technological improvement** in the LPG sector, particularly in the following fields:

- Hybrid<sup>1</sup> technologies;
- Power generation engine for stationary applications;
- Combined Heat and Power (CHP) technology;
- The development of a dedicated LPG automotive engine.

The LPG sector has already made significant contributions to the field of innovation and technology (e.g. development of thermal desiccation appliances) and is **committed to continued investment** in the future for the betterment of European society.

Moreover, one of the key challenges that AEGPL members will continue to address is **maintaining and improving technologies and standards** to make the production and use of LPG safer and more environmentally friendly.

The LPG European industry has developed **best practices and a full set of standards** ensuring that a high level of safety and technology standards are implemented in both EU Member States and candidate countries. In addition, these standards are disseminated as a reference of best practices for numerous non-European countries.

## 6. External policy

- AEGPL believes it is desirable for the European Union to **speak with one voice** when communicating with third parties such as producer and consumer countries and oil and gas producers. The **European Energy Observatory** could also provide policy makers with accurate data to facilitate transparent comparison between the energy sectors and monitor the evolution not only of the EU energy market (including derivative markets) but also Europe's energy mix.

- Key topics to be addressed with third countries include:

- **Dissemination of new technologies;**
- Development and implementation of **energy management plans;**
- **Choice of energy mix** to minimize pollution, climate change and health effects.

### *LPG: Bringing energy to the world*

For decades, the LPG Industry has played a part in the economic and social development around the world thanks to its **presence in virtually every country on earth** (the worldwide share amounted to 2.5% of total energy consumption in 2004).

<sup>1</sup> Hybrid: LPG plus intermittent renewable.

Its versatility means that it can be adapted to **suit a wide range of practical field conditions**. It can operate effectively in developing or developed countries and in rural or urban areas.

LPG is already recognised as the **ideal energy** for use in the immediate aftermath of a humanitarian crisis.

AEGPL members are **actively committed to improving energy efficiency, public health, the environment and more generally, quality of life for people everywhere**.

In conclusion, by promoting the growth of clean, alternative energies such as LPG, the European Union, in close cooperation with Industry, can develop and implement a European Strategy for Sustainable, Competitive and Secure Energy.

**LPG: The clean, efficient and immediately available alternative**

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#### **About AEGPL**

AEGPL is comprised of 24 LPG national associations representing the main European LPG markets as well as LPG distributors operating on a pan-European basis. European manufacturers and distributors of LPG equipment operating at European level are also members of AEGPL. With the support of its commissions and standing committees of industry experts, AEGPL is actively involved in initiatives, proposals and programs to ensure the safe, efficient and sustainable development of LPG in Europe.



CIA  
Chemical Industries Association

The Chemical Industries Association (CIA) represents around 140 companies ranging from multinationals to SMEs, from a sector which in total, has 200,000 employees across every region of the UK. The chemical industry is one of the UK's most important industrial sectors, accounting for 11% of manufacturing gross value added<sup>1</sup>. As well as being major consumers of both gas and electricity for heating and power, our members use gas and oil as feedstocks to produce key intermediates for use by other manufacturing sectors as well as final products for households, ranging from paints to detergents, fragrances to pharmaceuticals. The chemical industry faces global competition and UK assets are predominantly owned by companies headquartered overseas. They can take the decision to manufacture outside of the UK or Europe where energy prices are less volatile and security of supply can be guaranteed.

The industry supports the principles underlying the Green Paper which covers two important issues for the chemical industry in terms of (i) liberalisation of energy markets, and (ii) security of energy supplies. The issues outlined below illustrated with examples substantiate our view that:

- It is necessary to fully implement the second electricity and gas directives as soon as possible. We agree that full structural unbundling (separation of transmission from generation) is required to ensure that there are no commercial conflicts of interest;
- increased data transparency in Europe;
- coordination on a European basis of major infrastructure construction and upgrading, planning of adequate diversity in energy type and geographical source, and dialogue with major energy producers and suppliers would be very advantageous.

The following considers the six high-level points from the Green Paper in turn. In order to keep our response short we have highlighted just one key theme under each issue.

#### **1. The EU needs to complete the internal gas and electricity markets.**

CIA agrees that the second electricity and gas directives on unbundling need to be fully implemented to create competition and allow industrial consumers the choice to source energy at competitive prices. We agree that full structural unbundling should be considered. The UK market's experience means that full structural unbundling is required so that there are no commercial conflicts of interest, for example, there should be gas release schemes to enable gas to be traded and plant divestment to ensure that there are no dominant players. This action is required now in continental Europe as the UK process took many years to complete.

#### **2. The EU needs to ensure that its internal energy market guarantees security of supply and solidarity between Member States.**

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<sup>1</sup> 1 ONS, Annual Business Inquiry

CIA supports increased data transparency through creation of an European energy supply observatory, enhancing transparency on security of energy supply issues within the EU.

The table below shows the how Member States have different levels of gas information transparency.

<b>Transmission System Operator</b>	<b>Public Gas Information</b>	<b>When is the data published?</b>
National Grid (GB)	Daily information	Two days delay
Fluxys (Belgium)	Monthly information	18 months delay
Gaz de France (France)	Daily information	1 month delay
Gas Transport Service (Netherlands)	Daily information Indicative information (not actual),	1 year delay 1 day delay
E.on Ruhrgas (Germany)	Aggregate annual information	1 year delay

Source: The Office for Gas and Electricity Markets (Ofgem)

We require improved transparency on energy stocks at the European level, so that all storage system operators implement the Guidelines for Good TPA Practise for Storage System Operators (GGPSSO). If this happens, the benefit will be that consumers and the rest of the market will have knowledge on the amount of gas in store in Europe, and the market will be able to trade on actual data, and less on market sentiment and rumour.

### **3. The Community needs a real Community-wide debate on the different energy sources**

Primary energy supplies should be diverse in order to minimise risks to both supply and price, and to provide inter-fuel competition. We are very concerned by the projected growing dependency on gas: we believe that renewable sources alone will be unable to plug the gap left by closing ageing nuclear and coal fired stations, and look to both a new generation of nuclear plants and clean coal technology as means of providing baseload power. The use of gas as a raw material for manufactured products, and its flexibility in use as a domestic or smaller scale industrial fuel, mean it should as far as possible be reserved for these purposes.

### **4. Europe needs to deal with the challenges of climate change in a manner compatible with its Lisbon objectives**

The CIA's aim is to achieve a sustainable UK chemical industry by supporting innovation, competitiveness and playing a positive role in society whilst reducing our impact on the environment. As intensive energy users, energy efficiency is at the top of our agenda as energy prices are high. For example, in the UK there is a multiple cost impact of economic instruments on electricity prices (EU ETS, Climate Change Levy, Renewables Obligation Certificates). At a total cost of £1 50m, these instruments add around 20% to the cost of electricity (based on an estimate of typical final electricity prices paid by industry over the last year). This is equivalent to paying for indirect CO<sub>2</sub> emissions more than once and puts UK industry at a disadvantage to global competitors, particularly those located outside the EU. Now that EU ETS is in place we believe that the passing on of full CO<sub>2</sub> costs to electricity prices provides sufficient incentive for sites in energy intensive sectors to improve their use of this energy source.

### **5. A strategic energy technology plan**

Energy intensive industries, including the chemical industry, have been the early focus of the UK Government's efforts to improve energy efficiency and reduce carbon emissions. The chemical industry will continue to work hard to add to the considerable gains already made, although it is becoming more difficult to maintain the past rate of savings because

the chemical industry – throughout Europe - has always had to be very energy efficient in order to compete effectively in global markets. In the UK, industry's share of total final energy consumption is also decreasing: the DTI's Energy Indicators 2005<sup>2</sup>, shows transport at 36%, households 30%, industry 21% and services and agriculture 13%. However, the chemical industry can contribute in many ways to reducing energy consumption in other sectors of the economy, for example through building insulation materials, lightweight components for transport and other engineering applications, battery and fuel cell components and low temperature detergents.

## **6. A common external energy policy**

We are particularly supportive of pan-European coordination of infrastructure planning and construction, and in pursuing a dialogue at European level with major energy suppliers. We agree that by such means it should be possible to diversify the EU's sources of energy. At the same time we welcome the Green Paper's recognition of the existing long term mutual dependence of Russia and the EU. We further hope that, in the context of promotion of the 1994 Energy Charter Treaty, the EU may be able to mediate in the case of disagreement between Russia and countries through which key pipelines pass. It is in our interest that such pipelines should be properly maintained and that the flow of gas (or oil) along them should be secure and reliable.

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**ETSO**  
**European Transmission System Operators**



## **ETSO COMMENTS ON EC THE GREEN PAPER FOR A EUROPEAN STRATEGY FOR SUSTAINABLE, COMPETITIVE AND SECURE ENERGY**

Brussels, 1 September 2006

### **1. Introduction**

The European [electricity] Transmission System Operators (ETSO) welcome the opportunity to comment on the Commission's Green Paper on A European Strategy for Sustainable, Competitive and Secure Energy. ETSO has already provided a preliminary response to the Green Paper and now uses this opportunity to make further detailed comments and proposals.

ETSO fully supports the development of a truly EU energy policy that includes all existing and future energy sources. Difference in geography, electricity consumption profiles, weather conditions and natural resources provide in our view more opportunities than threats so as to achieve sustainable and secure energy for Europe, at the lowest possible cost.

ETSO encourages therefore a strong enforcing of the compatibility of the different EU and Member State legislations on various interacting topics (e.g. IEM, security of supply, cogeneration, RES, CO2 emissions, balancing mechanisms, transparency v. confidentiality rules etc.). All this will in our view benefit the single EU market providing the specificities of the Member States are fully exploited.

Regarding energy market development in general, the proposed actions in the Green paper are mainly focused on the regulated part of the business, e.g. networks, TSOs and regulators. However, some of the major market problems as perceived by the consumers and traders (e.g. lack of competition, concentration of market power and high electricity prices) relate to the deregulated sector. It would be appropriate that more emphasis be given to these issues and concrete actions proposed, including e.g. those that lie in the competence of national and EU competition authorities.

In responding to the paper our comments are mainly concentrated on those areas that directly affect TSOs. That is, completing the internal energy market in electricity and guaranteeing security of supply. ETSO also uses the opportunity to briefly comment on the climate change issues in the Green Paper.

A general point which is relevant to all of our comments is the need for close alignment between the Green Paper, the EC Sector Inquiry and the ERGEG Regional Initiatives if focus is to be retained on those issues which will really improve the European electricity market and duplication of work is avoided.

## 2. Completing the Internal Electricity Market

### 2.1. European Grid Code

The Green paper introduces an idea of a **European Grid Code**. The term Grid Code is often used for a catalogue of technical rules and standards that are necessary for secure power system, grid planning, grid access etc. ETSO considers that a European Grid Code, in the above sense, does not need to be developed **at European level**. Apart from the national grid codes, the synchronized electricity regions in Europe have already developed their regional grid codes via the sister organizations of ETSO such as: UCTE, NORDEL, UKTSOA, ATSOI and the Baltic TSOs. These grid codes are updated when necessary and fully reflect the specificities of the areas where they apply.

The need for regional grid codes between TSOs stems from being part of the same electrical system and not from belonging to the same market area. A single pan-European Technical Grid Code would be counter-productive in terms of security and economy. Grid and generation physical characteristics of different synchronous systems (and sometime different countries) require different rules and therefore their harmonisation would not in itself improve system security nor encourage greater cross-border trade.

The Electricity Regulation 1228/2003 already sets out conditions for network access for cross border trade. So it would be best to focus first on the implementation of the Regulation before assuming further work is required. This is particularly the case where the Regulation envisages binding guidelines on congestion management, an inter-TSO compensation scheme and tariffs, the first of these being scheduled to come into effect in the coming months.

However, achieving greater compatibility at cross border points (which are not covered by current codes nor regulatory frameworks) would constitute a significant step forward in facilitating the cross border trade of electricity. ETSO therefore believes that an alternative piece of work could be useful at European level (although probably developed first at regional levels). It should address the cross-border issues still needing further development both for market development reasons and for system operation.

One outcome of this work could be a kind of TSO handbook on market-relevant cross-border rules.

Such work will demonstrate the progress that has already been made in developing technical arrangements at cross border points and clarify what still needs to be done. We should not ignore the fact that differing technical (and commercial) regimes are interconnected at pre sent across Europe and that significant trade opportunities are being utilised by the market players across these interconnectors. Obvious examples would be the links between Great Britain and France, between the Nordic market and Germany and the link being developed between the Nordic market and Holland.

On the commercial aspects of cross border trade, ETSO has already played a very active role (with the EC and ERGEG) in the development of the congestion management guidelines. ETSO also intends to encourage further development in this area with the launch of a Transparency Platform in the autumn of 2006. This will create a central repository of information and will enable close to real-time publication of operational

data relating to cross border points. This will contribute to increased transparency and improved market confidence and will be the start of a work programme in examining what other cross border issues need to be developed to enhance liberalisation and security of supply. ETSO is commencing its internal discussions on such a work programme at present.

As indicated in the introduction above, we feel that the proposals in the Green Paper in this area need close alignment with the EC Sector Inquiry and ERGEG's Regional Initiatives work launched earlier this year. Failure to align these three topics will be to the detriment of greater cross border trade opportunities and security of supply.

## **2.2 EU Regulator**

ETSO agrees that a closer level of collaboration between regulators is required, especially in order to encourage cross border investment. It is clearly recognised by ERGEG in its regional initiative document that a 'regulatory gap' exists in attempts to improve the level of compatibility between rules and for timely decision-making process. Closer working relations between regulators and network operators will be crucial to closing this gap. However, ETSO does not feel that a 'European Regulator' is required at this stage. Giving TSOs a more formal consultation role is an important step in achieving greater cooperation between regulators and network operators, this will be discussed further in section 3.

## **2.3. Priority Interconnection Plan**

The functioning of the market and power system calls also for important strengthening of the European grid through **new interconnectors**. The Green paper mentions this but offers very little to overcome current hindrances for investing in cross-border lines. ETSO wants to stress the need for concrete actions to incentivise these investments and to streamline the authorisation procedures.

Currently there is no coherent legislative or regulatory framework to support investment by TSOs in cross border infrastructure. Without such a climate, arbitrary targets, such as minimum levels of interconnection at 10%<sup>1</sup> or priority interconnection plans, will be meaningless. This is because TSOs cannot be expected to invest in cross border infrastructure with 25 to 40 year life spans if it is not clear how that investment would be remunerated. In addition the problem of obtaining planning permission should not be ignored as, twinned with investment uncertainty, it provides the biggest threat to cross border investment.

ETSO has recently published a paper on Cross Border Investment suggesting how the current barriers that are preventing investment in cross border infrastructure can be overcome. Broadly our proposals are as follows:

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<sup>1</sup> Barcelona European Council 15 and 16 March 2002

**Member States and Governments** should be responsible for creating the overarching policy and framework, which would

- enable permitting procedures to happen in practical and realistic timescales and ensure their compatibility for cross border lines;
- extend the regulatory arrangements (including return on investments) to cross border investment;
- clarify how investment in one member state that is for the benefit of the region should be financed; and
- incentivise generators to locate plant in economically desired areas.

**Regulatory authorities** should implement a long term stable framework

- giving a long term guarantee of sufficient rate of return on investments;
- providing guidelines on: cost allocation principles between national systems, the treatment and recovery of third party costs, and revenue-recovery principles;
- implementing methods to evaluate the costs and benefits of new interconnection capacities; and
- providing guidelines to potential merchant developers and ensuring their compliance.

**TSOs** would retain responsibility for planning the development of their networks, performing feasibility and technical studies in a coordinated manner in order to identify required investments and building/upgrading where necessary in a timely and adequate manner.

ETSO would be pleased to discuss these proposals with the EU Institutions.

### **3. The Internal Electricity Market and Security of Supply**

#### **3.1 Formal Grouping of TSOs and European Centre for Energy Networks**

ETSO supports the idea of creating a **Formal Grouping of TSOs**. We understand it as a new layer of coordination among TSOs and between TSOs and the EC for reasons of supply security and the efficient development of the IEM. It could be formally set up by the EC following the pattern that gave place to ERGEG, the Regulator body. However, it should be clarified by the EC whether such grouping would also cover gas and oil at the same time.

As to the proposal of the Green Paper on creating also another network institution, **European Centre for Energy Networks**, ETSO considers that the activities of both the Centre and the Formal Grouping as described in the green paper could be merged in the same body.

The new body could then work on issues such as the ones described in the Regulation for Cross-border Electricity Exchanges (congestion management and inter-TSO compensation mechanisms), those related to the Security of Electricity Supply Directive and others such as the enhancement of market transparency via the collection, analysis and publication of relevant information as well as the increased operational coordination in the real time control of the European power supplies. In our view, this Grouping would also help in advancing more quickly on the development of the regional markets. For instance, the development of regional Multilateral Agreements could be considered a

useful tool to manage regional energy flows and to guarantee the local area operational security.

Such new body should cover all EU TSOs, report to the EC and work in close cooperation with ERGEG.

### **3.2. European Energy Supply Observatory**

ETSO understands the role of such an observatory as covering the whole energy sector in a similar way to what the IEA already does for all industrialised countries. So the question may arise whether the IEA could carry out also regionally focused monitoring instead of creating a new institution.

As regards electricity, the Formal TSO Grouping (as described above) could provide all relevant data. It is worth noting that ETSO was very active in the development of the Security of Supply Directive (2005/89/EC) and is now involved in several activities that could be relevant to this proposal. For example the Generation Adequacy Report, assessing long term production adequacy, is published annually based on the work also performed by our sister organizations: UCTE, NORDEL, UKTSOA, ATSOI and the Baltic TSOs. The Winter Outlook Report, assessing production adequacy for the upcoming winter, will also be published for the first time later in 2006. If such an observatory is created, a close relationship with bodies such as ETSO is crucial in order to avoid unnecessary duplication of work.

## **4. Climate Change**

ETSO fully supports the development of a European energy policy that includes all existing and future energy sources. All generation sources should be encouraged and enjoy a level playing field, as the benefits of a diverse mix of primary energy sources for the generation of electricity are widely acknowledged. We also need to be aware of the system impacts of different types of generation. For example, increased levels of intermittent generation, such as wind, significantly increase the need for capacity of other generation that would need to be kept in service to operate on low wind days, in order to retain a secure plant margin.

It is important that the future of the EU Emissions Trading Scheme is clarified, as the current uncertainty surrounding the scheme may lead to investments being delayed. The possibility that the form and duration of phase 3 may not be confirmed until 2010/11, when plant margins are already falling steadily, is a significant concern as investment decision for new capacity need to be made sooner than this.

## **5. Concluding Remarks**

ETSO has already worked closely with the EU Institutions and specially the Commission in developing measures such as the Congestion Management Guidelines and the Electricity Security of Supply Directive. ETSO intends to continue its work in this area with the launch of its Transparency Platform and also through detailed studies of Operational Network Security, Demand Side Response and both short term and long term system adequacy.

As we have set out in this response, ETSO believes that the main trends set up in the Green Paper are very positive but that further clarity is required on a number of the proposals and looks forward to working with stakeholders to further develop and implement them. However focus should be given to ensuring that any new proposals complement existing measures and work areas, avoiding unnecessary duplication and additional layers of bureaucracy. In this regard it is important that there is close alignment between the Green Paper, the Sector Inquiry and ERGEG's Regional Initiative.

A key issue that needs to be addressed is lack of adequate investment at cross border points; however mandatory targets will not achieve this. Instead focus needs to be given to clarifying the framework and the roles of the parties involved.

ETSO is committed to further developing its work in these areas and looks forward to working closely with the Commission and the other Institutions in the future.



**EURACOAL**  
European Association for Coal and Lignite

## **CONTRIBUTION TO THE FOSSIL FUELS FORUM WORKING GROUP ON COAL**

### **AS WELL AS**

## **PROVISIONAL POSITION ON THE GREEN PAPER: A EUROPEAN STRATEGY FOR SUSTAINABLE, COMPETITIVE AND SECURE ENERGY**

### **1. Introduction**

The supply of energy is an important aspect of life that heavily influences the economic policies of a community. EURACOAL therefore welcomes the European Commission's intention expressed in the Green Paper to elaborate a long-term energy strategy.

The European coal industry shares the Commission's view that citizens and enterprises must have access to a secure, sustainable and competitive energy supply - at EU level and worldwide.

Domestic lignite and hard coal as well as imported hard coal can and will largely contribute to the aforementioned objectives in a short, medium and long term. This paper shows the opportunities, obstacles and measures to be taken in order to use this option (see paragraphs 5 and 6). It also comments on some general aspects of the Green Paper (see paragraphs 1 to 4).

In the Green Paper, energy and electricity supply in EU-25 are analyzed from a European viewpoint. The known average figures, such as the 1/3-share of coal in electricity generation - the leading position in Europe's power supply today together with nuclear energy -, hide significant differences between individual Member States. Coal does not play the same role in every Member State, it is much more important in some States than in others. Therefore, any measures taken should not have inappropriate consequences for these countries. But the importance of coal for the Community as a whole is evident. And worldwide coal even has a stand-alone position as No. 1 fuel for power generation.

### **2. Three energy policy objectives**

The European coal industry is in line with the three major objectives set by the Commission. However, security of supply is the most important objective. It is the basis of a modern industrialized society. Without it, sustainability and competitiveness do not need to be discussed.

EURACOAL also calls for the energy supply to be sustainable and not to threaten the competitiveness of industry in the EU. With regard to sustainability, besides a European

perspective, a worldwide view is important, particularly in climate change policies and geopolitical supply risks.

### **3. Priority Areas**

EURACOAL welcomes the definition of priority areas for EU measures. To our mind the priorities have been chosen appropriately, even if their order could be discussed.

EURACOAL invites the EU to regard a stable framework for investments as an additional priority to contribute to a secure, sustainable and competitive supply of energy. A well-designed energy strategy should enable investors to take fundamental decisions and set an appropriate and reliable framework for potential investors who want to invest in coal-mining capacities, efficient and sustainable power installations as well as in new or modernised coal-fired installations in Europe. The measures and instruments which are needed to stimulate investments, particularly in Clean Coal Technologies, should be discussed in future EU Papers.

Many aspects of the current situation are comparable with the situation in the 70-ies or early 80-ies. Doubts regarding security of oil and gas supplies cause increasing prices. The oil crises led to the creation of the IEA in the framework of the OECD; the industrialized countries relied on diversification of the energy mix and on technology innovation, the electricity sector relying especially on nuclear energy and coal. In some Member States hydro energy and gas are also available. Generally speaking, the current energy mix in Europe is well balanced. But European energy policy has to care for the decades to come by preventing the energy mix from becoming worse and worse as current trends are indicating. The question how to achieve an appropriate diversification and energy mix for the EU where coal continues to be one of the options must be a priority.

### **4. Other general comments on the Green Paper**

All forecasts assume that electricity demand in the EU will increase. In 2003, the Commission assumed an increase by 54 % (2002 to 2030). Therefore, a policy aiming to reduce demand, e.g. by 20 % until 2020, is appropriate. Energy savings and increasing energy efficiency are important means to influence security of supply, sustainability and competitiveness. Both should be implemented in all fields of energy use including transport and heating in buildings, not only electricity and industrial use of energy. Nevertheless, in an electricity-intensive society there are limits to demand management.

In the Green Paper, the role of renewables for the next years seems to be overestimated again in EURACOAL's opinion. All Member States intend to increase their share but this is economically not as simple as the political targets and the public debate are making believe. The 15 % share of renewables in electricity generation (2003) relied for more than 80 % on large hydro, which cannot be developed any further. Wind and solar energy are still not ready to guarantee more than a minor contribution to electricity supply in Europe. And even if the target of 21 % by 2010 were to be reached, a reliable solution for the remaining 79 % is still needed.

Increasing demand and the need to close ageing power plants (mainly coal-based capacities which will to a large extent have to be replaced between 2006 and 2015 and nuclear-based capacities which will have to be replaced between 2016 and 2025) will accentuate the challenge. The dimension of this gap will depend on the future use of coal and nuclear energy for power generation. According to EURACOAL's forecast, it will not be an appropriate option, for various reasons including above all security of supply, to close this gap by power generated from natural gas.

## **5. Coal as a part of the solution**

Coal can contribute at least actively to four of the six Priority Areas defined by the European Commission without damaging the other two. Coal should therefore be seen as part of the solution to resolve the EU energy challenges and the envisaged long-term energy strategy for Europe.

### **5.1 Energy mix, security of supply and competitiveness**

The European coal industry makes a major contribution to Priority 3 i.e.: the energy, security and competitiveness of energy supply. EURACOAL looks forward to the in-depth analysis of advantages and drawbacks of different energy sources in a Strategic EU Energy Review. Coal's major advantages are:

- Large reserves and extraction capacities in Europe;
- Large worldwide reserves, most of them in politically stable regions;
- A well-supplied world market and a considerable indigenous production in the EU;
- Coal can be easily stockpiled at mines, power stations or intermediate locations; stocks can be drawn on in emergency situations; domestic deposits are available;
- Coal does not depend on dedicated supply routes and / or pipelines; leaks and risks due to network problems are avoided; in many cases it is cheaper to transport coal than to transmit electricity which gives the opportunity to generate power close to demand; indigenous coal can be used near to the deposits.
- Coking coal and coke are necessary as raw materials for the steel industry;
- Coal-based electricity is highly reliable;
- Coal prices are relatively stable;
- Indigenous coal enables energy security and economic development and creates national as well as regional prosperity and employment; a 1000 MW power station operating 7000 h/a and selling electricity for 40 €/MWh anchors 6 bln. € to the region within 20 years; coal production requires considerable investment in equipment and manpower, thus securing value creation potential and job opportunities at local and regional level; when burning indigenous coal all 100 % of added value remain within the EU; with imports this falls to 70 %;
- Coal is addressing its environmental challenges and especially in Europe the coal industry devotes a lot of research to develop new coal utilisation technologies (see below).

More diversification of the energy mix and a larger share of secure (and also new, low-carbon, clean technologies) energy sources cannot be reached realistically in Europe without a strong contribution of coal.

## **5.2 Sustainability/Climate Change**

### **5.3 A Strategic European Energy Technology Plan**

The advantages of coal can tie in with Priority 4 on Sustainability and Climate Change as well as Priority 5 “Encouraging innovation: a strategic European energy technology plan”. Clean Coal Technologies offer the possibility to continue to use coal in similar quantities as today and in the long term. The Green Paper declares, as the EU 7<sup>th</sup> Framework Programme recognises, that there is no single solution to our energy problems and we must deal with a wide portfolio of technologies which explicitly has to include “making clean coal and carbon capture and sequestration an industrial reality”.

EURACOAL welcomes that major elements of its Clean Coal Concept are taken on board by the Commission:

- I. Reduction in SO<sub>2</sub>, NO<sub>x</sub>, dust
- II. Improved efficiency of new power plants
- III. CO<sub>2</sub> Capture and Storage – making the vision become a reality

A broad reduction in “classic” emissions has already been completely implemented in many EU Member States; the necessary installations are being built or planned in many locations. The available techniques should be implemented in accordance with community regulations. European and national research policy has already allowed efficiency of coal-fired power stations to be improved by 30 % in the last 30 years, as the Green Paper has stated.

According to European and international research programmes, the development of CO<sub>2</sub> Capture and Storage technologies ready for implementation will be economically viable by the year 2020. The European Commission supports the “Zero Emission Fossil Fuels Power Plants” (ZEFFPP) Technology Platform. Furthermore, the “Sustainable Use of Mineral Resources” Technology Platform was set up to carry out research along the entire process of raw materials production and use, including CO<sub>2</sub> storage issues.

In the ZEFFPP TP it has become clear that in the field of CO<sub>2</sub> capture, but also above all in the field of CO<sub>2</sub> storage, significant research efforts are required. These must be gradually implemented in the long-term. They include the assessment of new technologies, the development of an integrated power station concept as well as the examination of alternatives to CO<sub>2</sub> storage. Their wide-ranging implementation involves promising technologies that first have to be tested in research installations. Vattenfall and RWE already announced their plans to build respectively pilot and demonstration plants. Other European undertakings in the coal industry are considering similar activities and investments. On the basis of the knowledge thus acquired, the technologies that will be implemented for the construction or demonstration installation must be chosen. From today’s perspective, large-scale commercial installations are envisageable after 2020.

In addition to this long-term target and while using coal for power generation significant CO<sub>2</sub> reductions can be achieved in the meantime. The European coal industry suggests replacing old power stations having reached the end of their lifespan by new and much more efficient coal-fired installations. Due to a significant efficiency increase compared to the old power plant, a lot of emissions would be avoided. This would serve a secure, sustainable and competitive energy supply and also a number of priorities mentioned in the Green Paper. It would also constitute a bridge to a possible future with CO<sub>2</sub> Capture and Storage.

On the basis of today's state-of-the-art technology, the justified expectation is to improve the thermal efficiency of coal-fired power stations up to 50 % by the year 2020 and to further improve the process of flue-gas cleaning by developing substances, components and the driving technique. Compared with older installations that would require new investments, a significant reduction of all emissions could be achieved. This would again call for the necessary research to be undertaken with a view to developing new materials and processes.

The replacement of ageing capacity by state-of-the-art technology already has a large potential: Assuming a lifetime of a power plant of 40 years, over the next ten years (by 2015) about 70.000 MW of hard coal-fired power stations and about 20.000 MW of lignite-fired power need to be replaced. From 2016 to 2025, another 40.000 MW hard coal-fired power and 15.000 MW lignite-fired power come up for renewal. The CO<sub>2</sub> abatement reached by that would add to 250 to 300 million tonnes of CO<sub>2</sub> per year.

Coal-fired power stations are relatively capital intensive installations; they are designed to produce electricity for a long time. Investments in power plants, in particular with a new design and increased efficiency, need investment security and stable framework conditions. In the last years those conditions were missing, the main reason being the dominance of new environmental goals and especially the Emissions Trading Scheme (ETS). Apart from the short trading periods/framework of 3 resp. 5 years it systematically disadvantaged coal without sufficiently regarding the other goals and requirements of energy policy.

The ETS destabilized the investment framework not only for coal-fired power plants, contributed to an enormous electricity price increase and put a burden on the economy as a whole. All that without making a major contribution to tackling the climate change issue. That was and is also impossible because the EU-25's share of global CO<sub>2</sub> emissions is only 15 % and the selective European ETS represents only a fraction of that (excluding for example almost the whole oil consumption sector) while the need for energy in Europe and the rest of the world is growing. It is therefore urgent to link the European ETS to an international ETS and the other flexible Kyoto instruments JI and CDM in a worldwide framework and/or to promote a global energy technology initiative including the further development and transfer of Clean Coal Technology as well as an international agreement on energy efficiency.

#### **5.4 Common European Foreign Energy Policy**

The production and use of coal can also facilitate a common European foreign energy policy. A considerable share of hard coal and lignite reduces EU import dependency,

maintains the access to the large indigenous reserves and thus contributes strongly to a better position in negotiations with energy exporting countries as well as other major energy using countries or regions.

Europe is home to leading manufactures of mining and power production and control equipment. RTD in the field of efficiency improvements for power plants as well as the pilot and demonstration projects for CO<sub>2</sub> Capture and Storage show Europe's leading position in R&D in this field worldwide. A later export of those technologies to third countries is therefore more than an option. What is more, advance power plant technologies provide the opportunity to significantly reduce emissions worldwide since coal use will increase in the world due to its major advantages (secure, available, relatively low prices).

## **6. Coal liquefaction**

On the occasion of the first meeting of the Working Group Coal of the Fossil Fuels Forum the question about the possibilities of coal liquefaction came up. The production of liquid substances (such as petrol and diesel fuels) as well as gas on the basis of coal may be an option for countries with large coal deposits but which are situated far away from other resources and which could use this method to reduce their gas needs. Those countries would then reduce the EU supply and price risks on oil and gas in the heat and transport sector. Several approved techniques are available and industries in South Africa and in East Asia (from 2007 onwards) are using them already.

Nevertheless the profitability of coal liquefaction depends above all on the crude oil prices. At current oil price levels, it is not only worthwhile in South Africa and China. Currently, Europe does not have the necessary infrastructure for coal liquefaction. This new experience must be developed further. Research and development in this sector will be important to keep open the possibility of coal liquefaction in future.

## **7. The Study on the Future Role of Coal in Europe**

In order to help the Commission and other partners EURACOAL has invited the renowned Prognos institute to deliver a Study on the Future Role of Coal in Europe.

The first part of the Study is mainly a collection of facts about the role of coal in EU-25, Bulgaria and Romania. The overall EU figures and the situations are analysed; important coal producing and importing Member States are looked at in detail. Prognos has already finished this part. Significant national (and even regional) particularities were revealed; they will have to be taken into account in a long term EU energy policy.

The second part will deliver an objective assessment of the future chances and challenges of coal. On the basis of the Commission's base scenario on the future development of the energy industry, Prognos will calculate different scenarios, including a scenario assuming a rapid technology progress as well as a number of special energy and CO<sub>2</sub> certificate price scenarios.

The results will presumably be published at the beginning of 2007. EURACOAL is convinced that the results will show that coal in connection with cleaner coal technology can make important contributions to a secure, sustainable and competitive energy supply now and in the years to come not only by renewal and addition of coal power stations at the end of their lifespan, by an increased efficiency of coal use and in the long term by also following the vision of CO<sub>2</sub> Capture and Storage respectively the ultra-low or even zero emission coal power plant.

## 8. Conclusions

EURACOAL agrees with the development of a common European energy strategy that takes into account national particularities concerning supply. Coal contributes to a secure, competitive and sustainable energy supply. The European coal industry especially welcomes the following major issues raised by the European Commission:

- **Energy mix and diversification of energy sources**: Due to large reserves and extraction capacities in EU-25 and worldwide as well as secure coal extraction and coal transport, the coal industry can guarantee a significant supply to the European energy mix in the long term;
- **Common European Foreign Energy Policy**: Coal ensures less dependency in particular from politically unstable regions;
- Coal can contribute to the **competitiveness** of industry in Europe and to the availability of energy resources for everybody, due to relatively stable price;
- **Sustainability and promotion of innovation and technologies**: An increased efficiency resulting from the use of coal and in the long term the vision of CO<sub>2</sub> Capture and Storage respectively the Ultra Low or even Zero Emission power plant will contribute to a sustainable energy supply by using coal. Realistic time spans are required, the projects announced up to now, however, hint give a first impression of the time span; on the basis of efficient technologies available today, one must move forward step by step; the activities of the RFSC and the ZEFFPP TP will also help;
- **Investment security** is needed because coal-fired power plants are particularly capital-intensive. This is also true for highly-efficient new installations. The European ETS has been the major obstacle in the last years. If it is still in force after 2012, the operators of new and more efficient coal-fired power stations must obtain longer delays for investment security. After 2012, the ETS must include all major emitters in order not to slow down the economic development of Europe.

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**EUROGAS**  
European Union of the Natural Gas Industry

## **EUROGAS VIEWS ON THE GREEN PAPER “A EUROPEAN STRATEGY FOR SUSTAINABLE, COMPETITIVE AND SECURE ENERGY”**

1. Eurogas welcomes the Commission's Green Paper "A European Strategy for Sustainable, Competitive and Secure Energy". The Green Paper is a timely contribution to the 2006 debate on a range of energy issues, as it deals with among other aspects, the challenges facing all energy sectors, the international aspects of energy policy, and the critical interface between environmental and energy strategies. In the more than ten years since the last Green Paper on energy policy and the Green Paper on energy security of supply in 2000, significant progress has been made, with regard notably to the internal energy market, security of supply measures and relations with producers. Now, however, new challenges arise and there is need to take stock of developments and for further debate on the way forward taking into account also impact assessments of any new proposals. The Green Paper provides a basis for stakeholders to debate the relevant issues.
2. In relation to the debates taking place this year on the challenges to the European gas market, Eurogas is developing a paper giving its perspective on long-term market development to be ready in the coming weeks. That paper deals with market issues in the context of wider global considerations and focuses on security of supply and the important challenge of attracting diversified gas supplies to the European market. This short paper concentrates on a response to specific ideas raised in the Green Paper.
3. Eurogas agrees that developing a European energy policy is a long-term challenge. It is widely recognized that it is a process. The three objectives of sustainability, competitiveness, and security of supply remain paramount and a coherent policy framework supported by consistent measures is required. The Green Paper identifies the key issues to be discussed in this respect. As a general point, Eurogas hopes that the outcome of the deliberations of the High Level Group on Competitiveness will be able to contribute also to this goal, and be taken account of in the follow-up to the Green Paper.

### **Completing the internal European electricity and gas markets**

4. Eurogas agrees on the fundamental importance of achieving the internal energy market, while safeguarding security of supply. The European gas market should be organized in such a way as to provide European customers with the gas and services they need at competitive prices from their choice of supplier. Achieving this needs continuous commitment from politicians, industry and regulators. The basic legislation is in place and rigorous and timely implementation of the Directives on the internal energy market and security of supply is required (for gas 2003/55/EC and 2004/67/EC). The Regulation on Access to Gas Networks (EC/1775/2005) must also be observed. In addition, Voluntary Agreements such as the Guidelines of Good Practice for Storage Operators must be followed. These are important complementary instruments to the Directives.
5. Therefore progress on implementation must continue to be monitored. It is useful that this year the annual Progress Report will be viewed in the context of the wider debate, and this and other checking and monitoring activities including those ongoing in the Madrid Forum will provide a surer basis of deciding if further legislation may be needed and, if so, for carrying out prior impact assessments of any proposals. Eurogas looks forward to participating in the debate and to contributing to the planned Strategic EU Energy Review.
6. Eurogas fully supports the emphasis given in the Green Paper to the importance of a framework to stimulate new investment. The business climate and a stable regulatory framework should promote the significant investments needed to improve

interconnections and facilitate supply options within Europe. These include gas exploration and production, pipelines, plants, and LNG terminals. Consideration has also to be given to facilitating investment outside Europe. The Eurogas vision paper gives its perspectives on this issue, as well as other measures to achieve a level playing field including, effective unbundling, non-discriminatory access, transparency requirements and capacity allocation and congestion management procedures to maximise use of existing capacity. Eurogas engages in working level discussions on such issues with ERGEG and other stakeholders.

7. From the perspective of suppliers and network users, Eurogas has considered the new concrete proposals referred to in the Green Paper: the development of a European grid including through a European grid code; a European regulator; and a European Centre for Energy Networks. The starting point for suppliers and network users is that they should enjoy a "seamless" experience when they move gas through different grids. How that is achieved is largely a matter for TSO organization and improved co-ordination is clearly necessary, in order to support satisfactory and non-discriminatory access. In the view of Eurogas, correct and timely implementation of the Access Regulation N° 1775/2005 will already stimulate improvements, and potentially it could become a sort of European Grid Code, particularly as it can be expected that the Guidelines will be further developed.
8. With regard to the question of the European Regulator, Eurogas supports in principle a move to stimulate more effective market integration, that will facilitate convergence and coherence of market rules and regulations. The ERGEG structure already establishes a potential framework to achieve the necessary co-ordination of national approaches. Therefore Eurogas considers that ERGEG should provide a more effective co-ordinating role at European level. Also Member States have to be involved and more willing to agree harmonized rules. For those reasons, Eurogas is supporting the Gas Regional Markets initiative which it considers has the potential to be a catalyst to promote a European wide robust and liquid market and to bridge regulatory gaps. This development and the potentially stronger role of ERGEG should be encouraged. Eurogas does not underestimate the challenge in achieving improved co-ordination but ERGEG should be given opportunity to show results before consideration is given to a new super-powerful entity or another level of bureaucracy. To deliver results, national regulatory authorities have to enjoy full and equal independence and also need to have sufficient powers and resources to carry out their duties effectively and in a timely manner.
9. Eurogas views the initiative on gas regional markets therefore as an important intermediate step to a fully integrated internal European gas market and was disappointed not to see reference to this important initiative in the Green Paper. The regional initiatives should promote the development of specific solutions to obstacles to a liquid market, including pragmatic approaches on cross-border issues. These solutions should contribute to the success of the internal gas market. The regional initiative should be a dynamic process, involving all important market participants. Suppliers and network users should have an equal role in the initiative with the system operators. Also Member States have to be more involved alongside regulators and European Commission representatives.
10. Eurogas requires more explanation about what is intended by a European Centre for Energy Networks and its intended role, and what its relationship would be with other groups, the Madrid Forum and the corporate governance that for now rests with ERGEG. Before setting up a new EU agency, its added value for essential policy measures should be justified.

#### **Diversification of the Energy Mix**

11. Eurogas supports a diversified energy mix, and considers that measures should be taken to encourage a move away from the more polluting fossil fuels to gas, as well as to renewables and biofuels. Nuclear power, and eventually carbon capture have also a role to play but a switch to gas still represents a cost-effective way to reduce carbon dioxide emissions. It is the cleanest fossil fuel and gas fired power stations

operate at high efficiency and are less capital intensive and have shorter construction periods than other plant. The benefits of switching to gas should be fully acknowledged in the EU Energy Review. Incentives to improved gas technologies will at the same time contribute to the objective of energy efficiency, part of the strategy to reduce imports.

12. Eurogas would be very concerned if the Strategic Energy Review should discuss targets for different energy forms. The market should determine their shares in primary and secondary use. All options have to be kept open and a European policy framework should facilitate this objective.

### **Security of Supply and Solidarity**

13. The Eurogas vision paper emphasizes the objectives of security of supply and discusses its different aspects, one of the most important of which is the necessary investment. Another is diversification of gas supply routes and sources. DG TREN has already established an Energy Supply Observatory and Eurogas does not know what more is intended by this Green Paper proposal. In any case provided it is not unduly bureaucratic or seeking confidential commercial data, an effective unit within DG TREN with responsibility for monitoring the supply and demand outlook, gas supply diversification, and investment levels could deliver added value to the work already done.
14. The EU has put in place a set of instruments for co-ordinating and regulating crises, should they occur. The EU Directive Safeguarding Security of Supply (2004/67/EC) lays down rules for dealing with emergencies. The Gas Co-ordination Group has an important role to play in ensuring security of supply co-ordination and encouraging convergence of approach. Its role will be strengthened in the context of the Directive Safeguarding Security of Gas Supply that has just come into force. Eurogas supports gaining experience in the implementation of this Directive in accordance with the provision of Article 10 before deciding if amendments are justified.
15. Eurogas does not see there is need for a new legislative proposal on gas storage. Eurogas considers that more storage is needed for the gas market as a whole and therefore as with pipelines and LNG terminals, it should be a priority to ensure that the business and regulatory climates incentivise investment in new storage. It is not clear if the Green Paper favours so-called strategic storage, on which there is no agreement in any case on its definition. If so Eurogas would emphasize the need to be very cautious and to proceed with an in-depth evaluation in view of the physical constraints (geology and pipelines) and the significant costs that could be implied and other implications including the potential undermining of commercial investment in new storage and supplies. Decisions concerning the extension and operation of storage capacities should still be made by companies from a commercial point of view. Only in this way will the appropriate investments urgently needed in some Member States remain economically attractive.
16. The Green Paper asks specifically about solidarity. This is a very complex issue, especially in view of its combination with the concept of subsidiarity. It should not, however, imply that Member States can neglect their own security of supply considerations in the knowledge that if problems occur solutions will be found at the European level. All Member States should seek to converge on security of supply standards as set out in the Directive. Equally a Member State should retain the right to take its own decisions on supply issues. In large part solidarity will be provided by a properly working internal market in gas. It is not clear what is meant by the crisis solidarity mechanism proposed in the Green Paper but if "solidarity" agreements are agreed for example between Member States, they should be embedded in and implemented through commercial agreements. Uncommercial mechanisms risk to be inefficient, and very costly.
17. Planning procedures in several Member States have resulted in delays to the

development of new infrastructure to support security of supply. It is important that planning requirements are respected, but Eurogas would encourage the EU and Member States to work toward streamlining these where possible.

### **Sustainable Development**

18. As mentioned above, natural gas has an important potential role to contribute towards the challenge of climate change and this should be fully acknowledged in policy aims. Natural gas use can also contribute to the reduction of noxious pollutants in the atmosphere. It is a fuel of choice for energy efficient applications, and in addition gas supply companies attach high priority to encouraging awareness of customers on the importance of energy efficiency. Natural gas has as yet untapped potential in use as a vehicle fuel.
19. Eurogas has supported the proposal for an Action Plan on Energy Efficiency and will continue to contribute in a concrete manner to promote this objective. If the EU does decide to propose and promote an international agreement on energy efficiency, then Eurogas would consider how it could contribute by promoting energy-efficiency in non-EU countries.

### **Innovation and Technology**

20. Eurogas, along with the European Gas Research Group supports, the drive towards improved innovation and technology along the gas chain and the proposal for a strategic energy technology plan. It is important to involve all stakeholders in the objective to develop commonly agreed research agendas and deployment strategies. The gas sector is driving several innovative projects, including CO<sub>2</sub> emissions reduction, public safety, energy efficiency, reduction of traffic congestion and pipeline security, and involved in other ongoing research on hydrogen and NGVs Eurogas would wish to see the gas sector fully involved in plans to strengthen the European effort on energy research.

### **External Policy**

21. The Eurogas vision paper treats in some detail on the importance of a robust external policy framework to support industry's business and commercial strategies. Eurogas supports the need for effective dialogues with producer and transit countries, aimed at facilitating trading relationships along the gas chain, and also at promoting the needed investment upstream of Europe. For such dialogues, existing institutions and discussions should be used, before new mechanisms are proposed. Furthermore, the basic boundaries between the responsibilities and role of the political and business worlds must be observed.
22. The proposal for a pan-European energy Community Treaty based on the Energy Community Treaty should be considered further, as the latter has been developed, is adopted by several countries, and arousing interest in others. It can help promote market disciplines in neighbouring countries. Eurogas, however, would wish to be assured of EU Governance in the interpretation and application of any such Treaty.
23. Eurogas questions the justification for a new targeted instrument to deal with emergency external supply wants. The Gas Co-ordination Committee already has a monitoring role to provide early warning, and industry experts also meet together in EU and IEA fora. Furthermore as mentioned above the Gas Co-ordination Committee has a role in the event of a crisis.

### **Conclusions**

24. The Green Paper is a good basis for discussion, although it is unclear what the Commission's precise aim is on some of the proposals. The market should provide

competitive and secure energy supplies within a sustainable framework and security of supply should be supported by EU external policy. The immediate priorities for the EU should be completion of the internal market, creating an environment that supports commercial investment and establishing a regulatory framework that provides the right incentives (e.g. transparency of information, streamlining planning procedures) and further promoting energy dialogue with third countries.

- Eurogas believes that rigorous and timely implementation of the current legislation is a precondition for a secure, sustainable and competitive EU energy policy.
- The market should determine the energy mix and their shares in primary and secondary use. All options have to be kept open.
- Before setting up new EU agencies, the added value of such a body should be clarified in order to avoid unnecessary bureaucracy.
- Eurogas supports the need for effective dialogues with producer and transit countries, aimed at facilitating trading relationships along the gas chain, and also at promoting the needed investment upstream of Europe.

## **THE EUROPEAN GAS MARKET: EUROGAS VIEWS ON THE WAY FORWARD**

**In the ongoing discussion on energy in 2006, Eurogas considers it is timely to reassert the importance of the gas industry in contributing to a sustainable energy supply for Europe. Recently questions have been raised about increasing dependency on gas, including for electricity production, and concerns have been expressed because of security of supply considerations. It is important not to be complacent. Changes in the supply structure and considerations arising from world economic growth are bringing new significant challenges.**

**Eurogas, however, recalls that gas reserves are abundant and commercially accessible. Provided that external policy, market and regulatory frameworks are in place to keep Europe an attractive destination for the world's gas supplies then gas can make a decisive contribution to building a bridge to a more sustainable energy future for Europe.**

**The world is currently experiencing a considerable growth in energy demand, and growth in gas demand is particularly strong.** Gas is forecast to become the second most important fuel from 2020. Power generation is and will remain the main driver of the growth in gas demand, even if the present gas price level raises some uncertainties about the most bullish forecasts, especially when coupled with the debate about future environmental regulation, emissions trading, technology developments and the future contribution of nuclear. It is certain, however, that gas penetration in the global market will grow. Fortunately, **gas reserves are abundant worldwide, although they are mainly concentrated in two areas, Russia and the Middle East Region.** Therefore growth in world gas consumption will imply higher reliance on large scale development of international trade, long distance transportation, with special expansion of LNG trade, and critically, underpinning these, realisation of major investments.

**Europe will be one of the important world areas competing to gain access to these concentrated gas reserves.** Because gas consumption in Europe is increasing, but also because European domestic gas production is in decline, it is important that Europe can remain an attractive zone for new gas imports. **European gas companies will be required to meet the challenge of filling an increasing supply gap at the same time as appetites for gas in Asia and the United States are rising.**

Today Europe is fortunate to be surrounded by three major producers (Russia, Norway and Algeria), with large reserves accounting for half of its supplies. Alongside these giants, European gas companies are developing diversification of supply sources and routes: contracts have been signed with Libya, Egypt and Qatar and Nigeria; others may come with Iran. **The potential, however, for diversification is limited and given the decrease of domestic production, the outstanding position of the three major producers will not change much in the coming years.**

LNG development encompasses some very specific features, **it increases the diversification options, it paves the way for more flexible supplies** which also means spot gas prices will be the decisive criteria of destination for spot LNG cargoes. LNG trade linked to long-term contracts has proved effective in developing the infrastructure along the whole supply chain and has provided security of supply. The flexibility associated with spot trade, rerouting possibilities and excess terminaling capacities could bring optimisation opportunities.

**Gas market liberalization is profoundly changing the structure of the industry.** Customer choice and the evolution to gas-to-gas competition have obliged companies to rethink their strategies, restructure their operations, develop new services and become more efficient. Effective unbundling gives network-users confidence their requests for network access and development will be treated in a non-discriminatory manner.

But unbundling challenges previous approaches to investment decisions, the regulatory framework has not yet fully stabilised and competition development introduces some uncertainty on suppliers' future market shares. All this at a time when heavy, long term decisions, whether to build large infrastructures, whether to take large purchasing commitments, have to be taken to guarantee the security of supply of the European market. **To assess and make commitments on these large investments, market participants need to have access to the necessary information and confidence that a fair, clear, and stable allocation of risks and responsibilities has been established.**

In this context, some European gas companies - still relatively fragmented in comparison with few very powerful and often state influenced up-stream supply companies- seek to spread their risk by diversifying and entering markets in other Member States, embracing new market opportunities, having in mind also to respond to the ambitions of upstream producers to be active on the downstream European gas market.

Industry consolidation has raised questions regarding its effect on competition and on how to preserve the interests of Europe's consumers, including the right to have a real choice of energy supplier among a range of competing large and smaller supply companies and traders able to meet customers' differing needs at competitive prices. Providing this consolidation is in line with competition rules, it will bring benefits to European consumers and in addition contribute to the strengthening of the purchasing power of Europe as a whole.

**Eurogas supports the achievement of the internal gas market.** A fully functioning internal market will enhance efficiency in the customers' interests and contribute to security of supply. Customer choice leading to effective competition should bring innovation in offers and services, including energy efficiency services, and drive technological development, to improve Europe's competitiveness. Considerable progress has been achieved since the adoption of the first Gas Market Directive in 1998, but further efforts are necessary. Eurogas is keen to see improved progress and urges Member States to ensure all elements are in place to meet the 1<sup>st</sup> July 2007 target date for full market opening. **Timely and correct implementation of existing legislation and regulation and fulfillment of voluntary commitments is the immediate priority.**

**The focus has to be put on achieving further European market integration and in this respect getting the regulatory framework right presents a challenge.** The paper suggests some approaches to tackle these challenges. From the suppliers and users perspective, it is essential that the rules are in place to ensure non-discriminatory access based on appropriate tariff structures, as well as capacity allocation and congestion management rules to optimize use of existing capacity and give market signals for needed new capacity. System users must be able to move their gas through networks in a fluid way on an economic basis. **Transparency and coherence of rules leading to convergence of operators' services will be keys to further progress but a lot of detailed, pragmatic work is required to ensure removal of all obstacles.** Therefore Eurogas participates actively in the Madrid Forum which seeks to find consensus-based solutions on a range of access related issues covering tariffs, capacity, interoperability, and looks forward to contributing to the planned work of

EREG on regional markets which can provide a useful next step to a fully integrated European market. Ways also need to be explored of improving the regulatory process.

Eurogas recalls that climate change and other environmental concerns present a significant challenge for Europe's policy makers and considers the qualities of gas have made it a fuel of choice to provide part of the solution in the energy mix. The policy framework, in particular by supporting industry's drive towards technological developments and research and development to improve the efficiency of gas applications should be supportive.

Eurogas supports the objective set out in the Energy Green Paper of meeting the inter-related and parallel objectives of a fully functioning energy market, secure supply and an environmentally sustainable fuel mix. **European consumers will be best placed to enjoy the benefits gas brings in a competitive gas market, only if security of supply to the market is assured.**

So, beside the above considerations on the functioning of the internal market, our key messages on the way forward are very much focussed on how security of supply can be delivered within a fully functioning internal market, exploiting the environmental qualities of gas.

- Each country has developed and should retain responsibility for setting its national security of supply standards within principles set by the Directive safeguarding Gas Security of Supply. **It is important, however, that some level of Europe-wide coherence is developed for example to promote and facilitate diversification of supply, while ensuring that national security of supply standards are compatible with the development of an internal gas market.**
- Negotiation between suppliers and sellers at industry level was and is the fundamental basis for organising European gas supply. **But it is very necessary that this relation be supported by solid political relations, in bilateral and most importantly European dialogues between consumer countries on the one hand and producing and transiting countries on the other hand. This political dialogue has to be supportive of the efforts of the European gas industry.** In today's world, energy is a geopolitical issue that cannot be resolved by market dynamics alone although these must continue to be promoted along the supply chain. It is necessary for Europe to speak with one voice in a global energy market.
- Large investments are necessary to bridge the gap between supply and demand; these include not only investments in distant production zones but also massive investments in Europe for transmission and gas storages. Therefore a policy framework is needed that recognizes the necessary long-term requirements and provides appropriate incentives, and **it should be a priority of the European agenda to facilitate these investments in support of all the actors involved in these projects** (financing institutions, producers, buyers, infrastructure developers, etc.). **The impact of the regulatory framework is crucial in this respect** since appropriate exemption mechanisms, the long term rate of return allowed for regulated activities, the stability of regulations, stream-lining of planning processes all play a part in ensuring the necessary infrastructure and facilities are in place.
- For suppliers, **long term take or pay contracts should remain crucial and for most companies indeed will be the backbone of their supply strategies** not only for their contribution in securing investments along the whole gas chain by the predictability they give, but also because they tie together buyer and seller with a mutually acceptable balance of risks.
- At the same time a **more liquid market supported by shorter-term contracts, spot, and hub development, has to be achieved** to complement longer-term arrangements, widen supply options by improving flexibility and enhancing portfolio optimisation.



**EUROGIF**  
**European Oil and Gas Innovation Forum**

EUROGIF input to the Green Paper for “A European Strategy for Sustainable, Competitive and Secure Energy”

Introduction:

The Green Paper key objectives are to ensure for Europe a sustainable energy security of supply while boosting the European industry competitiveness and efficiently contribute to environmental protection and climate change mitigation.

*EUROGIF strongly concurs with them.*

Energy demand and supply, trends analysis:

The IEA 2006 Energy outlook anticipates at the 2030 horizon a world wide energy demand increase around 60% account taken of the anticipated decrease of energy intensity in developed countries linked to energy savings.

It also forecasts that in the foreseen energy mix, even with the 100% increase of renewable energies in absolute terms and the gradual but slow introduction of safer and more efficient generation III and IV electronuclear fission plants , the fossil energies will still represent over 80% of the worldwide primary energy supply.

Las but not least, as stated in the Green Paper, the European Union dependency on foreign resources are anticipated to grow from 50% to 70% overall and even as much as over 80% for gas for power generation and domestic use!

Analysis of the 6 priorities of the Green Paper and related EUROGIF input for amendments:

1. Comment on page 5, paragraph 4 related to “Sustainable Development”:  
Quote: “ Further development of Clean and Renewable energy sources in the EU”  
*EUROGIF input: It is of vital importance for the EU to further the development of clean energies for Europe. However, , it is necessary to consider the complete energy mix and in particular the fossil energies still deemed to represent the vast majority of the energy supply ( power & transport) at the 2030 horizon and then to develop aggressively the sustainable use of fossil energies which involves higher efficiency and carbon management inclusive of CCS.*
2. Priority 1: Paragraph 2.1: Energy for growth and jobs in Europe: completing the internal European electricity and gas markets.  
*EUROGIF input: EUROGIF concurs with the objectives and action line of the Green Paper.*
3. Priority 2: Paragraph 2.2: An Internal Energy Market that guarantees security of supply: solidarity between Members States.

*EUROGIF input: EUROGIF concurs with this priority line which will ensure the proper management of energy distribution between Member States and the safety and security of this supply enabling to smoothen the peaks and troughs of energy demand and supply between Member States.*

*However, one must not assimilate security of supply to balancing of energy supply using a better coordination between Member States. The global issue is to ensure the proper supply to the growing global energy demand ( power & transports) despite the energy savings and decrease of energy intensity envisioned. The action on building security stocks and an optimized distribution network is more than necessary and EUROGIF concurs. But this will not do more than smoothening*

*emerging situations for a few days or weeks.*

*It is then highly recommended to plan the proper energy supply. This also relates to the huge and increasing dependence of the EU from foreign primary energy sources. Securing those foreign resources is another action plan of the EU as outlined in priority 6. However, EUROGIF strongly recommends that this action be combined with a strong push on utilization of available domestic resources such as coals and conventional and non conventional hydrocarbons. This will ensure both a stronger control of the security of supply and a significant decrease of the dependence from foreign oil and gas which will have a double benefit:*

- *reduction of the deficit of the balance of trade for energy in the EU*
- *reduction of the politico- economic risks of contracts with hydrocarbon suppliers.*

4. Priority 3: Paragraph 2.3: Tackling security and competitiveness of energy supply: towards a more sustainable, efficient and diverse energy mix.

*EUROGIF input: EUROGIF entirely agrees with the headline of this priority. However, the energy mix, as predicted by the IEA in its 2006 energy outlook, will still comprise, and for several decades to come, fossil energies. The Green Paper simply does not take into account hydrocarbons in the energy mix. Only coal and lignite are specifically mentioned as primary sources of indigenous nature for power supply and compliance with environmental protection objectives when combined with CCS.*

*EUROGIF strongly recommends that Oil & Gas be fully introduced in the energy mix portfolio for the two following reasons:*

- *Oil and gas will be the strongest component of the energy supply (Power and transports) and its security of supply is essential for the sustainable development of the European industry.*
- *The further development of indigenous resources (better mature field drainage inclusive of EOR, EGR and ECBM, marginal field exploitation, extreme fields and arctic field development, conventional and non conventional hydrocarbons) will allow to decrease the balance of trade deficit for energy and boost the competitiveness of the O&G European services industry, already over 30 billions euros today.*

*This prospect has to be combined with CCS to ensure the proper compliance with the environmental and climatic constraints which needs for CCS to be accepted as a CDM in the European ETS system.*

*Taking the quote on page 10 of the Green Paper: “Need for the EU as a whole to have an energy mix that, overall, meets its core energy objectives”, EUROGIF strongly recommends to add hydrocarbons to the energy mix and which are key for power (gas) and transports (oil) for several decades to come.*

5. Priority 4: Paragraph 2.4: An integrated approach to tackling climate change:

*EUROGIF input: While EUROGIF entirely concurs once more with the objective of this priority, it thinks that:*

*the quote from page 10: “Action on renewables and energy efficiency, besides tackling climate change, will contribute to security of energy supply and help limit the EU’s growing dependence on imported energy”*

*is commendable and necessary to pursue on the long term. However, it will fall*

*short of ensuring security of supply for the quickly growing energy demand needed for sustainable growth of the European industry and its effect will in no case be sizeable enough at the 2030 horizon to tackle climate change effects. The only way to seriously, efficiently and quickly tackle climate change impact is to promptly act on establishing the proper regulatory framework while simultaneously developing and certifying the CCS processes for a rapid deployment. The EU already has made significant progress through its establishment of the ZEP technology platform. However the full fossil fuel chain should be tackled from extraction to utilization via production, transportation and conversion and not only for power production but for all industrial processes which are heavy emitters of CO<sub>2</sub>.*

*In the Green Paper, CCS only is mentioned in relation with EOR. While EUROGIF supports strongly EOR, EGR and ECBM using anthropogenic CO<sub>2</sub>, it recommends that carbon management inclusive of efficiency and CCS, be extended to the full fossil fuel chain: extraction, production, conditioning, transport, conversion and utilization.*

6. Priority 5: Paragraph 2.5: Encouraging innovation : a strategic European energy technology plan.

*EUROGIF input: EUROGIF concurs with the objectives and action plan relevant to this priority. However, while positively noting page 14 the long term interesting prospect of clathrates both for security of supply and innovation competitiveness , it deeply regrets that no mention of any kind is made on innovation , potential of contribution to the balance of trade and climate change mitigation (CCS) for the indigenous O&G resources of Europe ( conventional and non conventional ). EUROGIF recommends to clearly include that potential in the Green Paper. This is vital for the European industry competitiveness and the minimization of the balance of trade deficit for energy at the European level.*

7. Priority 6: Paragraph 2.6: Towards a coherent external energy policy.

*EUROGIF input: EUROGIF concurs with the objective of this priority and the action plan on Trans European networks and LNG terminals. However, the dream goal quoted in the Green Paper on page 17 on “ reducing the use of fossil fuels” , while respectable and desirable by all of us, is simply not realistic in the short and mid term , at least for power and transport . EUROGIF thinks it is imperative to include the fossil fuels in the energy mix for its Member States , further develop its indigenous resources to minimize the balance of trade deficit on foreign energy, and promptly validate and deploy clean fossil fuel technologies to optimize the fossil fuel energies efficiency and their compliance with environmental and climatic constraints ( inclusive of CCS) It would like to point out , regarding the comment on page 18 : “ diversifying EU energy mix with greater use of competitive indigenous and renewable energies” , that while this is a nice goal , it is again falling short of reaching the EU policy goals in the short and mid terms.*

8. Conclusion:

*EUROGIF Input: on the quote from page 19 : “ A detailed plan to stabilize and gradually reduce the EU dependence on imported oil”:  
EUROGIF agrees with the actions listed but recommends again to add the indigenous conventional and non conventional fossil fuel resources (coals O&G)*

*August 27, 2006*



# EUROMETAUX

## **THE GREEN PAPER FOR SUSTAINABLE, COMPETITIVE AND SECURE ENERGY**

### ***URGENT MEASURES ARE REQUIRED FOR FUNCTIONING ELECTRICITY MARKETS***

#### ***EUROMETAUX proposes a set of solutions***

Eurometaux is a strong supporter of the new energy strategy for Europe as set out in the Green Paper. Our position focuses predominantly on the objective of the Green Paper to complete the internal energy market and to obtain a secure and competitive energy supply to industry. In this respect it is absolutely crucial that the Green Paper recognizes that one of the most important objectives of the internal energy market is to promote the competitiveness of EU industry, thereby contributing to growth and jobs; securing energy supply at affordable prices is therefore crucial. This is of particular importance to the non-ferrous industry.

#### ***Conditions allowing affordable and internationally competitive prices to emerge are needed***

The key consideration in the achievement of this objective will be to obtain internationally competitive market-driven prices in relation to the unique profile of the non-ferrous metals industry:

- The industry has a constant, high and very stable consumption profile of electricity, during both peak and off peak hours, leading to a very reliable and predictable consumption profile.
- Non-ferrous metals smelting is highly electro-intensive; no other industrial process consumes such an amount of electricity per unit of production.
- In addition electricity represents a very high proportion of the overall production costs. Any power price increases will have a very high impact on margins, which means that the price of power is a predominant production factor influencing its viability.
- Non-ferrous metals are traded as a commodity with prices set globally on a competitive basis, and there is no possibility to pass through extra costs to consumers. In addition, regional cost disadvantages cannot be fed through to the price, but simply impact the commercial viability of operations .

Given this unique profile, the non-ferrous metals industry needs truly competitive markets allowing electricity prices with long-term predictability.

#### ***The electricity market is not functioning***

As also identified by DG Competition's Energy Inquiry, there are currently no sufficiently functioning electricity markets in the EU. Indeed over the past recent years, electricity prices have risen significantly above pre-liberalization levels, and they are still increasing. On the Continent gas and oil costs are only minor sources for power and can be no justification for steep price increases. The main reason for this is that power markets within the Member States are highly concentrated, volatile, short-term and illiquid, and prices are being imposed in a distorted manner. Generators have linked their sole reference price to the cost of operating the marginal (highest cost) generator required to meet electricity demand in the system. Another problem of large users is that some prices for households and SMEs are too tightly controlled, often below the real costs, and any cost increases are passed on to large users.

A major cause of the current power price increases is the price of CO<sub>2</sub> certificates, as generators are using their dominant position in the power market to take advantage of the Emission Trading System (ETS). For example, the pass through of CO<sub>2</sub> allowance prices in the power price in Germany is 60-80%, leading to huge distributional impacts and no environmental benefits. The EU should insist that ETS be modified to solve this excessive pass through and deliver its required environmental goals.

In this non-functioning market, it is no longer possible for electricity customers to engage in true negotiations, nor to conclude long-term contracts as in other regions in the world, while in addition the price paid for electricity is now indeed much higher than in other regions in the world for the metals industry. As a consequence, the international competitive position of the European metals industry has deteriorated sharply.<sup>1</sup>

This deterioration is difficult to accept, especially as the EU has a relatively favourable primary energy mix and a sound generation cost structure, chiefly composed of hydropower, nuclear power and coal, which could deliver internationally competitive base load power prices. In this light, the European Commission should further push for a well balanced energy-mix and reward the advantages of nuclear power for base load electricity, energy supply and CO2 emission reductions.

### ***Solutions are urgently needed***

In power intensive industries investment horizons are long, and therefore long-term power price security at a level that allows operations to be viable is a key requirement. However, the non-ferrous metals industry cannot wait for any new market regulations to take effect. Many long-term contracts are coming to an end and, if no action is taken, they can only be replaced by the current short-term contracts and prices. Because of this uncertainty created in the electricity market, the EU has become a high-risk area for new industrial investments for power-intensive industries, while existing ones have begun to shut down production, leading to an ongoing trend of EU de-industrialisation.

A few Member States, now also encouraged by the Commission's High-Level Group, have recognized that the market failure puts at risk energy intensive industrial consumers in Europe and have started the organization of measures to introduce specific market arrangements that provide the long-term security of power at a price that electro-intensive industrial consumers can afford to pay. France, for example, has developed a framework for investment by electro-intensive industry in nuclear generation capacity and is inviting competitive tenders from power generators for the operation of the plant. Finland has already embarked on a suitable solution offering affordable prices to power intensive industries.

We would ask that the actions resulting from the Green Paper support such innovative market based initiatives to meet the diverse needs of European electro-intensive industrial consumers. However, more broadly, EU and national authorities should encourage and define the measures whereby EU-based power intensive industries can survive and secure their competitiveness as soon as possible, until such time as there is a properly functioning, fair and competitive market. Eurometaux would insist on including this sense of urgency and the need for very quick solutions in the follow-up to the Green Paper.

### ***Additional regulatory measures are required***

The Green Paper emphasizes that industrial competitiveness requires a well-designed, stable and predictable regulatory framework, respectful of market mechanisms. This is still far from a reality in the EU, but crucial for the required long-term stable investment climate. For this to happen a number of measures have to be taken urgently at EU level:

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<sup>1</sup> For non-ferrous metals smelters in Europe an affordable price is one that is competitive with electricity prices paid by smelters, elsewhere. For instance, according to CRU Analysis, the worldwide average power price to aluminum smelters was \$24.50/MWh in 2004 and \$27/MWh in 2005. This is well below the average price offered by the EU electrical generators' trading screens, in 2005/06, e.g. in Germany about 55 Euro /MWh for base load year ahead.

- The DG Competition Energy Inquiry will correct distortive behavior if identified and should continue to closely monitor trade practices. More measures are needed, however. The swift and forceful removal of all barriers of free competition in the power market should be the priority of the Green Paper results.
- The implementation of the current Directives alone will not be sufficient to solve the current electricity markets' problems. The European Commission should promote a 3<sup>rd</sup> legislative package without delay, including all crucial recommendations for better market functioning, e.g. the ownership unbundling of the grid-operators from the integrated power companies.
- The existing price setting mechanism is a structural fault of the liberalisation process and should be transformed into a system in which an interaction of supply and demand fundamentals will again be possible, as in established functioning commodity markets. The price levels at the power exchanges do not reflect market prices, as just a small percentage of consumption is traded by power exchanges.

This means that:

- Short-term (e.g. balancing) prices should no longer be allowed to inexcusably function as a reference for longer-term contracts.
- Power-intensive industries must be able to truly negotiate again, particularly also long-term wholesale supply contracts, based on "arms-length" negotiations between producers and buyers. The European Commission should make clear, that it accepts those long-term contracts in the light of competition legislation.
- The current power exchanges will have to be modified in order to produce true long-term price curves, while having visible supply-demand fundamentals in the prices formed.
- More inter-connectors and infrastructure are needed, but particularly also better management of flows and connectors, and more interconnection outside the EU. Even more importantly, both ownership unbundling of power generation and grid, and the unbundling of traders from producers are essential elements to start creating market competition and openings to new entrants, and should form a basic element of the approach of the European Commission. In this respect, it is also important for existing production capacity to be freed, and more investments to be made. Lastly, strong independent regulators will have to use their authority to guarantee the market functioning and provide large industrial consumers with the possibility of obtaining a real choice of supplier in the future.

On top of the problem of non-functioning markets comes a range of additional costly burdens, particularly energy tax, and renewable energy promotion.

The development of renewable energy schemes is very important for the development of a healthy EU energy mix and the required environmental benefits. Eurometaux requests that this policy be developed in such a way as to create a real "win-win" situation for all stakeholders and the environment.

However, the current incentive schemes for RES, particularly wind energy, are distorting the power market and are adding unnecessarily substantial costs for base-load consumers. In addition, they are placing pressure on grid costs and, due to huge fluctuations, putting the grid security at risk.

Renewables should be supported when the source is cost-efficient in practice compared to other CO<sub>2</sub> reduction measures. In addition, only types of renewable energy should be supported that can be commercially useable after a transition period. In this context, base load customers, who have a stabilising function for both the electricity grid and markets, should not be forced to pay for the (balancing) costs of peak-load renewables.

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**EUROPIA**  
European Petroleum Industry Association



*European Petroleum Industry Association*

**EUROPEAN PARLIAMENT  
COMMITTEE ON INDUSTRY, RESEARCH AND ENERGY**

Public Hearing  
on  
“Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy”

12 September 2006

**EUROPIA comments and suggestions on the Green Paper**

**EUROPIA welcomes the Commission initiative on EU strategy for energy**

The member companies of the European Petroleum Industry Association (EUROPIA) welcome the opportunity to provide comments to the EU Commission on the Green Paper entitled "A European Strategy for sustainable, competitive and secure energy" - COM(2006) 105 - adopted on March 8, 2006. The oil industry is pleased with the Commission's initiative to resume a long-standing consultation process that also builds on the Berlin Fossil Fuels Forum process to which the industry is actively contributing.

The oil industry is particularly pleased to join the debate on the European Commission's strategic objective to meet Europe's need for secure long-term, competitively-priced energy while minimizing environmental impacts.

**1- Energy for growth and jobs in Europe.**

**a- Advocating a free market approach.**

EUROPIA agrees with the Commission's observation that sustainable, competitive and secure energy will only be achieved with open and competitive energy markets. EUROPIA believes that an open, competitive market for energy, operating on a level playing field within a transparent and stable fiscal and regulatory framework, will best meet this challenge. In addition, open markets will attract and retain the necessary long-term capital investment required to meet future energy needs.

EUROPIA also agrees with the Commission's assessment of energy supply/demand trends globally and for Europe, and of the substantial investment that will be required to satisfy growing demand. With regard to oil and gas, massive investment plans are being implemented and are set to continue into the foreseeable future both globally and in Europe. Nevertheless, Europe will continue to be dependent on oil and gas imports, and the import quantities required are expected to grow. Global oil and gas markets are well developed and have extensively proved their ability to generate the required interregional flows of both crude oil and finished products in response to varying regional supply/demand balances.

**b- EUROPIA supports cost-effective initiatives and economic analysis.**

Competitively priced energy will make a major contribution to the competitiveness of EU industry in general. EUROPIA strongly supports the Commission's view that the competitiveness of

European industry requires a well-designed, stable and predictable regulatory framework, respectful of market mechanisms, and that it requires policy-making on the basis of thorough economic analysis of policy options, and decisions based on cost-effectiveness. These considerations are of particular importance in the energy industry, considering the size and the time scales of the investments required.

## **2- An Internal Energy Market that guarantees security of supply: solidarity between Member States.**

### **a- Oil stocks: further community legislation or better national implementation?**

The Oil industry has no significant concerns about the existing double legislation (EU and IEA) on oil security stocks as it has contributed maintaining continuity of supply for the past 30 years.

It is important that equal treatment of Compulsory Stock Obligations (CSO) for refiners and non-refiners is applied. All oil market operators selling products in the Member States should be assigned obligations in the same proportion to their sales, irrespective of the nature of the company and its business activity. This feature will best protect the interests of end-users in case of a crisis, ensuring at the same time a level playing field for all actors.

In order to maintain controllable, effective and quickly deployable oil security stocks in EU-25, no further complexity should be added to the current legal requirements to maintain a "Minimum Stocks Level". Therefore:-

- no distinction should be made between categories of stocks (minimum operational/commercial/strategic) which qualify to cover oil CSO;
- commingled storage should be allowed for all stocks—irrespective of their ownership;
- blending stocks, intermediates, crude oil as well as finished products - all contributing to supply continuity - should qualify for CSO coverage of all operators;
- use of CSO "tickets" – a quasi-commodity benefiting above all the consumer - should be maintained and secured. Authorities should establish appropriate control mechanisms.

Member State governments, being responsible for ensuring the security of supply for their country, should retain the right to decide on:-

- the establishment of an appropriate stock keeping system and structure of management to achieve the harmonized level of coverage.
- the geographical location of their security stocks both within and outside the country, adopting a country-specific approach while balancing between cost effectiveness and rapid stock utilization;
- swift and cost-effective controls of operators' compliance with CSO, since security of supply relies on credibility of the overall stockholding mechanisms;
- the publication of Member States' oil security stock data by category, while protecting commercially sensitive information. No detail by operator should be made public.

### **b- EUROPIA suggests a pragmatic and cautious approach to information needs on security of supply.**

EUROPIA understands the Commission's desire to have up-to-date information on EU energy markets for the benefit of society at large. Industry itself has no such needs to run its business, market information being an essential part of competition.

However our industry is ready to support new initiatives to increase transparency in the energy market, although it should be noted that there is no other commodity at the present time that has the same level of transparency as oil trade represents, in value, roughly 10% of the entire world trade and a large amount of information on oil and gas markets is already available.

EUROPIA believes that if the desired objective is to contribute to reduced market volatility, then accuracy of reported industry data must take priority over speed and frequency of availability. If

reported data lacks integrity and credibility there could be the risk that its availability would contribute to rather than reduce volatility.

**c- Focus on real terrorist threat and utmost confidentiality are key drivers for improved physical security.**

The oil industry – along with other energy sectors - has examined with interest the Commission initiatives in relation to the physical security of energy installations. In order for proposals to be effective, a thorough gap analysis of current EU and national regulatory systems will be required.

The European Program for Critical Infrastructure Protection (EPCIP) should only address terrorism. It should avoid an ‘all hazards’ approach requiring a different focus, set of measures and crisis management approach. EU legislation already exists for man-made and natural disasters. Overlap, as well as duplication, of efforts must be avoided.

Confidentiality of information must be guaranteed by all players at every step of the regulatory process. Public disclosure should be avoided since it could attract unwanted attention with unintended consequences. Mapping of Critical Infrastructure (CI) would not be appropriate if confidentiality cannot be ensured and a list would constitute a security risk in itself.

Protection of CI requires a consistent partnership between the CI owners/operators and the national and EU authorities with clearly defined responsibilities. Therefore CI owners/operators involvement should start at the very beginning of the process of drafting regulation, including criteria definition. Clear rules would need to be established for designation and notification of CI by National/European competent bodies and/or owners/operators. The latter should retain the ability to define and deploy security methodologies and measures.

Any proposed measure must be subject to appropriate and effective impact assessments, carried out in conjunction with the CI owners/operators. For any measure to be cost-effective, the likelihood of an incident occurring must be the guiding principle.

**d- Publication of energy stock data.**

EUROPIA understands the Commission’s desire to have weekly up-to-date information on EU oil stocks. Accuracy and speed of availability are not complementary: higher frequency reporting will inevitably produce less accurate data. Inaccurate data may provide misleading indicators. Compiling data speedily, but with a high risk of imprecision and the consequent need for ex-post adjustment, might defeat the purpose of more frequent data release. In addition, reconciliation of variances from one week to another might prove difficult.

It should be recognised that provision of stocks information, in itself, is unlikely to achieve the stated objective of smoothing out market volatility and might even result in the opposite. Due to the number of market players and the influence of non-oil stock related events and the role of the media, volatility may well be a fact of life.

**3- Tackling security and competitiveness of energy supply: towards a more sustainable, efficient and diverse energy mix.**

**a- A cost effective energy mix based on sound analysis.**

EUROPIA welcomes the EU proposing clear indications/aspirations with a view to working towards decreasing dependency on fossil fuels.

EUROPIA supports the continuing diversification of the energy choices available to consumers and society, including the development of economically sustainable alternative energy sources and technologies. The development of these sources and technologies into robust and competitive industries will inevitably take time.

Infrastructure will need to be built, environmental impacts fully assessed and commercial safety and operating practices developed. The oil industry supports the Commission's ambition to bring clean and renewable energy sources closer to market. However, the level playing field should be respected by limiting in time the use of subsidies and avoiding disproportionate taxation to reduce hydrocarbon demand.

In this context, a preset EU minimum target level of "secure and low carbon energy sources" would be inconsistent with the Commission's own stated objective to have a competitive energy mix, optimized by energy companies on the basis of economic analysis and cost-effectiveness in open markets, within the framework of Member State policies.

#### **b- Taxation: a major driver in implementing energy policy.**

Taxation, whether on energy products, on energy-using equipment, or on energy-saving technology, has an important effect on the energy mix and the energy demand level. Tax levels and patterns has implications for energy supply security and for the competitiveness of energy-consuming industries. Conversely, subsidies for particular energy sources or carriers, such as biofuels or renewables, will have similar effects of distorting markets and limiting consumers' economic choices.

An example in the downstream oil industry is the high level of taxation on motor fuels in Europe which has stimulated vehicle manufacturers to develop technologies to improve the energy efficiency of the fleet. At the same time, tax differentials between gasoline and diesel in many Member States have significantly biased demand towards diesel-powered passenger cars.

The resulting effect on the motor fuel demand mix has forced European industry to adapt its refining capacity and rebalance its supply by significant imports of distillates (mostly from Russia) and large exports of gasoline (mostly to the USA).

The role of taxation measures in implementing a European energy policy should be widely debated among the EU institutions and the relevant stakeholders. It may have a potentially profound effect on investment decisions of market participants. Specific energy sources or carriers should not be forced into, or out of, the market by market-distorting taxation.

Stability of tax regimes is essential. Investment decisions made in a particular fiscal and tax environment should be given adequate time to recover their economic incentives before new taxation measures could render them obsolete. The fear of abrupt or inconsistent tax pattern changes may discourage operators from taking the appropriate investment decisions to respond to market needs.

To support the development of new technologies, fiscal systems should be technology neutral and maintain competition between all forms of energy.

#### **4- An integrated approach to tackling climate change.**

##### **a- EUROPIA supports emissions trading as a cost effective tool; the EU system should act as a precursor for an international scheme.**

The European oil industry supports emissions trading as a market-based instrument to lower the cost of mandated reduction of GHG emissions. The preferred option for the industry is an international trading system to be operated in conjunction with the other flexible mechanisms.

As long as the EU's major trading partners do not face similar constraints regarding their GHG emissions, the environmental impact of efforts being made within the EU will be limited since the EU only represents 10% of world-wide CO<sub>2</sub> emissions.

As soon as an international trading scheme is operational, the EU scheme should become part of it or should be linked to it. In this process, the possibility for companies to trade directly is key and should be retained.

## **b- Energy efficiency: focus on equipment performance and on end-user energy-conscious behaviour.**

EUROPIA awaits with interest the Commission's proposal for an Action Plan on Energy Efficiency. EUROPIA agrees with the Commission's view that Europe is already one of the world's most energy efficient regions, and that many of the tools to realise Europe's energy efficiency potential are in the hands of Member States. Improved energy efficiency could help achieve longer-term security of energy supply and reduce greenhouse gas emissions, while it may also have a positive impact on European industry competitiveness.

Any future Action Plan on Energy Efficiency must take into account some important aspects:-

- Any measure to enhance energy efficiency must be realistic, efficient, cost-effective, avoid discrimination and distortion of competition.
- The primary focus should be on improving energy efficiency of equipment. Once an energy using appliance or vehicle has been purchased, little further energy efficiency improvement can be made.
- Clear communication on the energy efficiency performance should be delivered by manufacturers of appliances and vehicles, to enable consumers to make an energy-conscious purchase decision.
- Energy efficiency improvements will best be achieved by widespread adoption of advanced metering devices in appliances and vehicles.

EUROPIA believes that any Action Plan on Energy Efficiency must be in line with the EU objective of making Europe the most competitive, dynamic, knowledge-based economy in the world by 2010.

## **c- Increasing the use of renewable resources.**

We acknowledge that renewable energy can offer advantages but current options are costly. The Commission recently published its Biomass Action Plan which promotes the use of biomass for energy applications.

We agree with the Commission that biomass is a limited resource for which there are competing demands, particularly for food crops. Therefore, we should make best use of the EU's remaining crops to contribute to the EU's objective for GHG reduction and energy security in the most cost effective way. As was highlighted in the Biomass Action Plan, biomass in stationary applications, like heat and power generation, offers the best energy efficiency and greatest GHG avoidance potential.

The availability of domestically produced biomass for transport is not only determined by the quantity of available arable land, but also by EU policy demands for renewables in other energy industry sectors. According to studies carried out jointly with the Commission, the EU cannot produce enough conventional biofuels to meet even current indicative targets of the Biofuels Directive. Therefore imported biofuels have a key role to play in the EU biofuel market.

The realisation of greater potential from biomass in the EU will require the development of new, "advanced" conversion technologies which can use a range of feedstocks. These technologies are piloted for their commercial viability at the present time. "Advanced" biofuels (i.e. 2<sup>nd</sup> generation and beyond) offer the opportunity for a technology and biofuel neutral approach. For this reason EU policy should not be directed at creating a market for today's biofuels – principally focusing on ethanol blending - since this may discourage and delay the development of more advanced biofuels which hold far greater environmental and economic potential.

Future biofuel technologies will be based on dedicated energy crops, residues as well as municipal solid waste. This will present significant challenges to the agricultural sector in terms of new farming practices and their impact on the environment. Therefore, more emphasis needs to be given to the need for the farming community to adapt its production patterns to these

advanced biofuels. A sustainable future will need to provide access to energy crops with the greatest GHG avoidance and energy efficiency potential at lowest possible costs.

Besides availability, there should also be attention to the energy security aspect. The objective to improve security of supply with biofuels will be achieved much better by producing bio-diesel, as the EU has a structural diesel deficit. Promotion of bio-ethanol will only add to Europe's already large surplus in motor gasoline of which most is exported to the US.

#### **5- Encouraging innovation: a strategic European energy technology plan.**

**Technology is capable of delivering solutions in all energy sectors, for the benefit of society-atlarge.**

Technology has proven critical in increasing security of oil supply by providing access to unprecedented volumes of energy resources out of previously inaccessible regions or locations. Technology is still the most reliable and promising tool to address the major global environmental concerns without affecting the standard of living of society at large.

Therefore EUROPIA supports the development of a *strategic energy technology plan* delivering coordination of research efforts at EU level. European-wide plans should get wider support. Industry is ready to actively contribute to its development.

Industry is already committed to some "*energy technology platforms*". These could benefit from enhanced project management.

**June 2006**

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EWEA



**EWEA**  
THE EUROPEAN WIND ENERGY ASSOCIATION

## Europe –Winner of the future energy game?

Christian Kjaer  
Chief Executive Officer  
European Wind Energy Association

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Input to the

**PUBLIC HEARING**  
**on**  
**"Green Paper on a European Strategy for Sustainable,  
Competitive and Secure Energy"**

**EUROPEAN PARLIAMENT**  
**COMMITTEE ON INDUSTRY, RESEARCH AND ENERGY**

Brussels, **12 September 2006**, 15.00 -18.30

The European energy debate is heating up. While it seems obvious that the European Union needs a common energy policy, it is still not apparent whether the Community will seize the opportunity and turn the looming energy and climate crisis into an opportunity for Europe.

Especially in electricity, Europe has a chance to create vast opportunities. In the old structure of utility monopolies, the system was always producing excess capacity in the knowledge that the costs of new build could be passed on to consumers. As a consequence, the wind energy sector and other renewable energy technologies have spent the past two decades fighting hard to gain access to a system that really did not need additional generating capacity, although it did need the greenhouse gas reductions. That is quite an achievement. The approach has been –and still is – necessary to achieve the necessary cost reductions and technology improvements and to survive in a market for conventional power that is still fraught with distortions that discriminates against renewables, e.g. massive conventional energy subsidies, market dominance, inefficient wholesale markets, lack of cross-order transmission and effective unbundling and the energy markets' ignorance of environmental costs.

Now, spare capacity is at a historic low. Europe, and the rest of the world, has to invest in new capacity to replace ageing plant and meet future demand. In the first three decades of this millennium, 365 GW of electricity generating capacity will be retired in Europe and an additional 400 GW will be needed to satisfy the growing power demand. The capacity required exceeds the total capacity operating in Europe today. The outlook is similar, or even more significant, in other parts of the world. For Europe, this

is a historic opportunity to take a dramatic change in approach to secure our energy supply.

At the same time, we are facing a climate crisis that could cost the world –literally – and we need to act fast.

*A main objective for an EU Energy Policy should be to use the opportunity created by the large turnover in electricity generating capacity over the next two decades to secure a truly indigenous clean energy supply based on renewable sources of energy. Combined with much more ambitious efficiency measures and biofuels, it is the only way for Europe to turn the looming energy and climate crisis into an opportunity and a benefit to the welfare of our citizens.*

As an importer of energy, we put the control of our energy supply, and thereby the future welfare of our citizens, in the (few) hands of the nations that sits on the remaining fossil and uranium resources.

We can be sure of one thing. We are going to import an ever growing share of our energy at unpredictable (but most likely higher) prices, from unstable regions in fiercer competition with the rest of the world and at unbelievable environmental cost.

Europe simply does not have the fossil fuel resources to emerge as the winner of the global fossil fuel energy game. What we do have is enormously rich renewable energy resources and European industries that are world leaders in turning that resource into energy.

Regardless of whether we are successful in energy diplomacy or not, we will have no idea about the future cost of energy we will be paying to maintain current supply – unless we redefine the energy game itself.

But by dramatically increasing our efforts in energy efficiency and indigenous renewable energy sources and the technologies that can convert them, Europe can turn the energy and climate crisis into a vast opportunity.

*We are clueless, and will remain clueless, about the future cost of maintaining our current supply structure. But we can change the supply structure. And the economic future of Europe can be planned on the basis of known and predictable cost of energy, derived from an indigenous energy source free of all the security, political, economic and environmental disadvantages associated with the current energy supply structure.*

If we combine this increased effort with ambitious export initiatives, Europe has the opportunity to redefine the future energy game. That game will be won by the regions of the world that understands how to develop, utilise and export technology that can convert our natural resources into energy – not by the regions of the world that controls the depleting resources.

It would be impossible to turn the challenge into an opportunity without dramatically changing the current energy mix towards a greater use of renewable sources – the only indigenous resources we will have left in a few decades that does not add to the climate disaster and at cost that can be predicted because they have no fuel component.

### Scope of an EU Energy Policy

In light of the recent failure to obtain wide public support for the European constitution, the litmus test of each element of a European energy policy should be that it can be accepted by a majority of European citizens and that there is broad Member State consensus.

The European Wind Energy Association is proposing seven main elements of an energy policy for Europe:

- energy efficiency
- largescale renewables
- indigenous sources
- distributed generation
- energy infrastructure
- electricity and gas liberalisation and competitive markets
- energy diplomacy.

### The Green Paper

The purpose of the Green Paper is to initiate a long needed public debate on two of the most serious challenges Europe is currently facing: energy supply and climate change. However the Green Paper lacks vision. Two or three decades from now we will be importing 70% of our energy. While the Green Paper is able to define the challenge, it gets nowhere near presenting a true vision that addresses the root of the problem: We are going to import an ever growing share of our energy at unpredictable (but most likely higher) prices in competition with the rest of the world and at unbelievable environmental cost.

Overall, the Green Paper is too focused on how to act in the current energy framework –energy diplomacy. It will be impossible to eliminate the political risk of supply cuts, especially as the battle for remaining energy sources becomes fiercer in the years to come. The Green Paper's reference to possible new legislative proposals on gas stock is an example of one of those initiatives that is necessary to address but that does not address the core structural problem of our current energy supply structure.

A fundamental pillar of a visionary strategy should be clean and indigenous renewable energy sources combined with energy efficiency measures.

A European energy regulator, as proposed by the Green Paper, is desperately needed to create a single European grid.

However, the Green Paper fails to combine that idea with the need to reduce greenhouse gas emissions, develop renewable energy technologies and increase the share of renewables.

A European offshore grid would address many of the central goals of a European strategy:

- largescale indigenous renewables in the form of offshore wind, wave and tidal energy to increase the share of renewables
- increase energy independence
- protection of the environment and reduction of greenhouse gases
- better interconnection to improve, badly needed, competition in the power market to the benefit of households and businesses

- reduced fuel price risk

The Commission rightly points out that more effective unbundling of generation and transmission activities is essential to improve third party access.

#### Renewable Energy Road Map

The Commission's proposal for a "Renewable Energy Road Map" is highly welcome, although we have to see content beyond existing measures to pass final judgment on the initiative.

Given the strong rhetoric on renewables it is simply unacceptable that the Green Paper seems to move backwards when it comes to setting long term targets for renewables. Two years ago, the Commission –COM (2004)366 –referred to the 20% target for renewables in 2020 and communicated its intention to set targets for beyond 2010 in 2007. It also referred to the need for a European policy for offshore wind energy. Now it refers to a "Renewable Energy Road Map" which would include consideration "of which targets or objectives beyond 2010 are necessary, and the nature of such targets".

#### Targets

- The current national targets for renewables should be made mandatory and national targets should be adopted for 2020, in line with the recommendation of the European Parliament.
- This overall target must be translated into sectorial targets for electricity (at least 35% by 2020), heating (at least 25% by 2020) and biofuels (at least 12% by 2020)
- The targets for 2020 should be ambitious, at least 20%, and mandatory.

#### Although

targets themselves do not guarantee development they act as important catalysts for development of the necessary frameworks for renewable energy investments.

- The setting of targets encourages investors to commit, enables stable technological development and cost reductions, and encourages research investments.

#### Offshore wind energy

The Green Paper mentions the possible need for "large scale integrated actions" in R&D while referring to the very costly ITER and Generation IV initiatives – both nuclear related. It talks about investing in "large scale renewable technologies" and mentions concentrated solar thermal, but not (offshore) wind energy.

Both in terms of offshore infrastructure and technology development, offshore wind should be seen as a strategic resource that Europe needs to develop if we are ever to achieve competitive electricity markets in Europe, a larger degree of energy independence, at lower and predictable costs and reduced environmental impacts.

Just as the Commission seems to be backing from previous commitments on renewable targets and a possible European policy for offshore wind, it seems to have forgotten the intentions of European Heads of State's climate change commitments. At last year's Spring Council, European Heads of State agreed to pursue greenhouse gas reduction pathways for developed countries in the order of 15% to 30% by 2020 and 60% to 80% by 2050. A reference to that agreement at last year's Spring Council is

missing from the Green Paper, but the agreed target of a maximum rise of 2 degrees in global temperatures above preindustrial levels is mentioned.

While it seems fair to treat energy efficiency and renewables in the same section in the Green Paper, the decision to add carbon capture and storage (CCS) in the same section is an obvious mistake. Renewables –not least wind power -and efficiency are proven technologies. CCS is an unproven, very expensive and potentially very risky strategy. It should of course be included – but in the research section as a potential option at some point far out in the future together with other research projects such as fusion and hydrogen.

Besides targets and a European renewable offshore energy policy, including an offshore grid, a Renewable Energy Roadmap should include:

- Grid extensions and upgrades paid by–ownership unbundled –TSOs (grids are natural monopolies)
- Removal of administrative barriers (onestopshop approach)
- Removal of grid access barriers including excessive technical requirements
- Dramatic refocus of R&D spending, taking into account historic levels of funding
- Renewable energy export strategy

In other policy areas related to renewables, the following goals should be pursued:

- Immediate adoption GHG reduction targets for 2020 (30%) and 2050 (80%)
- Move from free allocation to 100% auctioning in EU emissions trading scheme – Art. 174 (polluter pays principle)
- We need a European Energy Regulator
- Removing unproductive subsidies
- Refocus EIB lending towards RE
- Reorientation of structural funds and farm subsidies towards RE
- Full ownership unbundling –separation of transmission and production
- Abolish Euratom, to ensure fair competition and a level playingfield

Europe and other regions of the world can certainly go a long way towards an energy supply that is superior to the business as usual scenario in terms of energy independence, energy costs, risk reductions, optimal diversification, available resources and competitiveness -especially if combined with serious efforts to promote other renewables and energy efficiency measures.

*It will be a challenge to shift our energy supply towards 100% renewables, but compared to the challenges, risks and costs of basing our future energy supply on the current structure, the challenge is insignificant.*

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FORATOM  
European Atomic Forum

## **FORATOM STATEMENT**

### **Nuclear Power, a key element in the European Energy Strategy**

The European nuclear industry welcomes the European Commission's initiative to launch a broad debate on the energy policy for Europe with the new Green Paper: "A European Strategy for Sustainable, Competitive and Secure Energy". This energy policy aims at improving security of energy supplies, and meeting the reduction targets for greenhouse gas emissions, while enhancing EU's competitiveness in accordance to the goals of the Lisbon strategy.

However, the Green Paper should have referred more directly to the central role that it plays in the debate about Europe's future energy needs. President Barroso, during the press conference presenting the Green Paper in March 2006, indicated that there is a need *"for over half European Union's energy being secure and low carbon sources within 20 years"*. The other essential element in the energy policy for Europe, he mentioned is sustainability and he indicated that *"we (the European Union) have to accelerate the transition to a low carbon economy using both new energies and existing ones. There should be no taboos in this debate"*.

Efficient demand side management and even wider promotion of renewable energies alone cannot meet the EU's ever-growing need for electricity. World electricity consumption is forecasted to more than double by the year 2050. For EU-25 alone, the OECD-IEA predicts a 21% increase in energy demand between 2002 and 2030. As many old power plants will be retired by 2030, an estimated 766 GW of new capacity will need to be built in the EU by 2030<sup>1</sup>. At present, about one third (32%) of the electricity produced in the EU 25 is nuclear-generated.

**All energy sources are needed in order to meet the growing demand for electricity. Removing any option from the energy mix would diminish diversity and, as a result, hinder security of supply. Nuclear energy has a key role to play in enhancing competitiveness, promoting sustainable development, fighting climate change and reducing external energy dependency.**

Nuclear energy enables Europe to:

- **Strengthen security of energy supply by reducing reliance on imported fossil fuels and electricity.** Uranium is available from a wide range of sources in different parts of the world, which are politically stable. Current estimates of all expected uranium resources represent several hundreds of years supply at current rates of consumption and even in the case of massive expansion of nuclear energy<sup>2</sup>. In addition, already existing technologies permit a more efficient use of these resources (e.g. breeder technologies in the context of Generation IV).

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<sup>1</sup> Source: OECD/IEA World Energy Outlook 2004 Edition.

<sup>2</sup> Source: OECD/NEA & IAEA Uranium 2005: Resources, Production and Demand.

Also, the fuel volume requirements of a nuclear power plant are relatively very small, compared to fossil fuels. Operators in the EU carry at their sites fuel supply for several years, thereby contributing to the security of supply.

- **Curb CO<sub>2</sub> emissions.** During normal operation, nuclear power plants release no greenhouse gas emissions into the atmosphere. When analysed, the life-cycle greenhouse gas emissions of a nuclear MWH are 20 to 50 times inferior to the ones of the most efficient natural gas technology and equivalent or inferior to the ones of most wind power installations<sup>1</sup>. Today, the use of nuclear electricity in the EU-25 contributes in saving nearly 700 million tonnes of CO<sub>2</sub> emissions a year, which is equivalent to the annual emissions of the whole European car fleet.
- **Benefit from stable and affordable electricity prices.** Recent international studies (e.g. OECD) have shown that nuclear electricity in almost all cases is more competitive than electricity from fossil fuels. Any rise in uranium prices would have only a minor impact on the cost of nuclear electricity as it represents only less than 10% of the overall cost of producing nuclear electricity. Most nuclear power plants operate continuously as a base load with very high capacity factors, as they are normally only stopped for refuelling and routine maintenance.
- **Promote economic development.** Clean, affordable and reliable sources of energy, like nuclear electricity, play a vital role in economic development and in maintaining and enhancing our living standards and general welfare. The nuclear industry represents an important indigenous added value to the goals of the Lisbon strategy. For the European industry, in particular energy intensive industries, stable and affordable energy prices are of paramount importance to booster economic growth and create jobs in the EU.  
Globally, nuclear power will grow significantly in the years to come. For this reason the European Union must maintain its industrial and technological leadership in this field if it is to compete successfully the world economy market.

Europe will require a diversified and flexible energy mix in order to meet the combined challenges of security of energy supply and CO<sub>2</sub> abatement at competitive prices. Nuclear energy can effectively address all these challenges. It is therefore an important part of the solution. The future growth of nuclear energy in Europe depends to a great extent on the outcome of the ongoing debate. The industry is already engaged in an open dialogue with the public, the decision-makers and the media.

Security of energy supply is crucial for the future of our society. Nuclear energy must continue to be part of the energy mix. The European Union can help ensure that nuclear energy plays its role in meeting the EU geopolitical, economical and environmental challenges.

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<sup>1</sup> Sources: 1) Meier & al. (2005) US electric industry response to carbon constraints, Lifecycle assessment of supply side alternatives, Energy Policy 33, 1099-1108, University of Wisconsin-Madison, 2) IAEA Bulletin (2000) Greenhouse gas emissions of electricity generation chains, Assessing the difference, <http://www.iaea.org/Publications/Magazines/Bulletin/Bull422/article4.pdf>, 3) OECD-NEA Nuclear Energy and the Kyoto Protocol (2002).



GIE  
Gas Infrastructure Europe

# GIE Response to Commission's Green Paper

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Ref. 06 GIE 204 – final

## **Executive Summary**

Gas Infrastructure Europe (GIE) welcomes the opportunity to contribute to the Commission's Green Paper, "A European Strategy for Sustainable, Competitive and Secure Energy".

The Green paper identifies six priority areas, of particular importance to infrastructure operators are:

- Energy for growth and jobs in Europe: completing the internal European electricity and gas market
- An Internal Energy market that guarantees security of supply: solidarity between Member States

GIE considers that in fulfilment of the two priorities mentioned above particular attention should be paid to investment. Sufficient investment is necessary to enable cross border trade and to provide access for new market entrants, without investment the single European market will not be completed and consumers will not benefit from supplier choice.

Our main conclusions are:

- We believe that the key issue in completing the internal market and guaranteeing security of supply is investment.
- We have identified that the major impediment to investment is the regulatory / access regime. Infrastructure operators rate this issue as the most important for the viability of new investments, however it is the area of least satisfaction.
- GIE proposes and is committed to take forward an action plan to improve the investment climate for infrastructure operators in Europe, in consultation and in conjunction with the Commission, regulators and other relevant stakeholders.
- We are also committed to ensuring non-discriminatory and transparent access to infrastructure and strongly believe that the existing legislative and voluntary measures are sufficient to deliver this. What is now required is for Member States, regulators and infrastructure operators to fully implement the agreed measures without delay.
- To develop a fully functioning European Grid requires focus on specific goals which we believe can be delivered through existing organizations and measures.
- GIE would be happy to meet with the Commission and discuss further any of the elements of this paper and its proposals.

## **1. Introduction**

GIE has already published a preliminary response to the Green Paper on 14 June 2006, following a presentation by Geert Joosten, GIE President, at Madrid Forum XI. In addition the Association has actively participated in discussions with many stakeholders, including the Commission, on this very important topic.

GIE fully supports the Commission's desire to accelerate and complete market liberalisation in Europe, whilst ensuring security of supply.

The following short paper will focus on the Commission's proposals with regard to the completion of the internal European gas market and security of supply and then specifically on investment. The paper builds upon the Association's preliminary response, the fruitful discussions with stakeholders and incorporates the results of a detailed investment survey completed internally by infrastructure operators.

## **2. Comments on Commission Proposals**

With regard to the concrete proposals of the Green Paper and how the first two priorities should be achieved we would like to re-iterate and add to the comments from our preliminary response:

### **European Grid**

In developing a European Grid, we need to have a clear and shared understanding of what we are trying to achieve. The aim should be to create the conditions that allow gas to flow and be traded freely throughout Europe. This should be the measure by which all initiatives are prioritised and assessed. However we need to be careful that we do not unnecessarily pursue harmonisation as a goal in its own right and introduce avoidable costs. We should also recognise that gas is different to electricity. 60% of all gas transported flows across at least one national border, therefore a European Grid and the operational rules are already largely in place.

In considering the three proposed European Grid concepts (European Regulator, European Grid Code, European Centre for Energy Networks), GIE supports the following aspects:

- **increased regulatory co-operation for cross-border investments.** With the support of the Commission, we believe that this should be achievable through existing structures, such as ERGEG and the Regional Co-ordination Committees.
- **improved cross-border trading conditions.** The work of EASEE-Gas and the introduction of the Gas Regulation are having a positive impact in this area. We also look forward to further developments, with the Commission's inventory of interoperability and the finalisation of the Commission's explanatory notes on the Gas Regulation.
- **strong involvement and co-operation of infrastructure operators** - both in terms of new policy development and investment planning. The Gas Regulation already recognises the need to involve infrastructure operators in amending policy. However to move the consultation role for gas infrastructure operators on to a firmer footing would be most welcome. In terms of investment, as mentioned above we see that there is a clear need to improve the investment climate in Europe. Section 4 details our proposed action plan to deal with this issue, which will establish a key focal point for infrastructure operators to engage with the Commission and other stakeholders on future investment planning.

From our perspective the key to achieving a fully functioning European Grid is to focus on clear goals. Above we have outlined the fundamental issues, which with the continued commitment of all stakeholders could be largely addressed through existing structures. Therefore at this stage we do not think it would be beneficial to introduce new

organisations, such as a European Regulator, which could introduce a further layer of bureaucracy.

### **Enhancing Security of Supply in the Internal Market**

We believe that measures in the Security of Supply Directive 2004/67/EC provide sufficient basis to address Security of Supply (SOS). The Directive came into force on the 19 May 2006 and provides a good set of output based measures to protect supplies. In addition the remit of the Gas Co-ordination Group (GCG), with Member State support, is well suited to deal with the other issues raised in the Green Paper, for example monitoring demand and supply patterns and preparing for emergencies. We would be happy to further explore with the Commission the development of the GCG and in particular how this could fulfil the role of the proposed Information Observatory.

As European infrastructure operators, we have only limited involvement with upstream producing countries, however we do support the Commission's aim to improve relationships with these countries.

### **Emergency Gas Stocks**

GIE considers that, in effect the implementation of emergency gas stocks for Europe may be an extremely expensive possibility and not a necessary one, taking into account the benefits accruing from alternative measures that tend to favour the protection of consumers via the creation of a well connected and integrated market and diversity of supply sources (both from a geographical and a technological point of view).

GIE believes further work is needed and that the following issues would need to be well considered before any further decision on emergency gas stocks provisions could be taken.

1. The putting in place of so called emergency gas stocks could create a risk of undermining the incentive for commercial investment in storage, if these were also to be used as a tool to accommodate market flexibility needs.
2. The volume destined to emergency stocks would be "captive" until an emergency occurs and will be withdrawn from (and thereby putting additional strain on) the market, whereas the storage capacities are useful for market modulation either in existing or in new storages.
3. Before creating emergency gas stocks it should be assessed the possible repercussions on present and future gas prices for final consumers and thereby on the competitiveness of natural gas.

### **3. Investment**

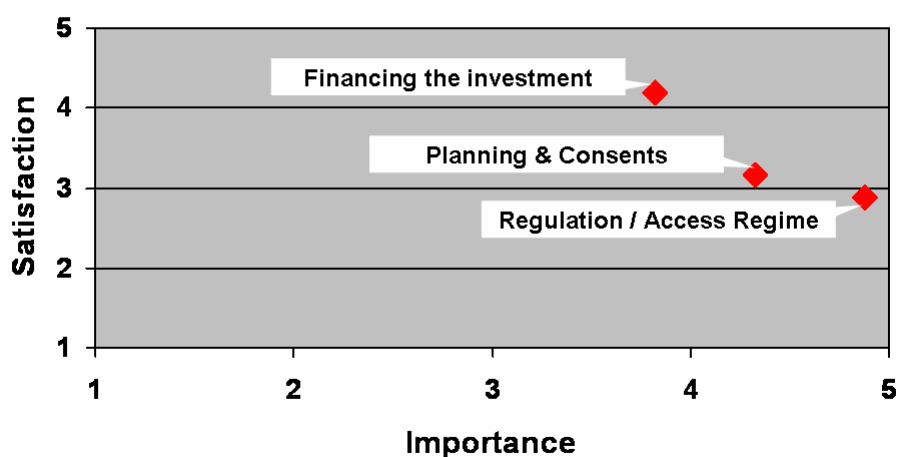
We are encouraged by the Commission's acknowledgement in the Green Paper of the urgent need for investment. From our perspective this should be the key priority for the Commission, Member States and Regulators, if we genuinely want to create a single European market. It should be recognised that without sufficient investment market liberalization and the benefits of consumer choice will not be delivered.

To address this issue, we believe the questions that must be answered are; what are the barriers to investment? And how could these be removed? In order to provide input to the Commission on these questions, GIE has conducted an extensive survey of our Members. The survey focussed on three main areas; Planning & Consents, Financing the Investment and the Regulation / Access Regime.

Although there are variances across the EU and infrastructure types, the high level results from the survey are:

- In terms of importance for the viability of new investments, Regulation / Access Regime was rated very important followed by Planning and Consents and Financing, which were both rated important (see Figure 1).

**Figure 1: Importance and Satisfaction ratings for different aspects of investments**



- With regard to satisfaction, the highest levels of satisfaction were associated with financing and the lowest with Regulation / Access Regime (See Figure 1). Across the infrastructure types the greatest level of satisfaction with Regulation / Access Regime was experienced by storage facilities, several of which are exempt from regulated access and prices.

Based on the above analysis and the comments received, **a key conclusion from the survey is that Planning & Consents and to a lesser extent Financing are issues that delay and complicate the investment, however the regulatory framework can prevent the investment.**

### Regulatory Framework

As identified above the most important aspect in relation to the viability of new investments is the regulatory framework and at present there is a low level of satisfaction in relation to this topic for all infrastructure types. Below is a few quotations that illustrate the dissatisfaction felt by infrastructure operators:

*“Uncertainty about treatment of investments in current and future regulatory regimes (regulatory risk), including ex post approval of investments”*

*“The Regulator changes the remuneration rules (rate of return,...) after the investment is decided.”*

*“Complexity of UIOLI mechanism for LNG terminals and apparent preference of regulators for arrangements which are unattractive to customers (LNG shippers)”*

*“Uncertainty regarding introduction of price regulation” [Storage]*

As infrastructure operators we have been calling for sometime for an investment climate which is:

- predictable;
- stable;
- commensurate (allowing an appropriate remuneration taking into account the risks involved) and complete.

From the statements made above it is apparent that this investment climate has not been achieved. As part of the survey, our Members put forward solutions to these Regulatory / Access Regime issues, a few examples are as follows:

*“The directive allows for a special regulatory regime under art 22. It would be beneficial if regulators and relevant authorities subscribed more explicitly to the mechanisms of establishing a regulatory regime under article 22, rather than aim at avoiding as much as possible the use of this instrument.”*

*“Set up a tariff for a 3 to 5 years regulation period.”*

*“Allow the TSO to take a long term view of transmission investment, rather than piecemeal, with appropriate recompense, this is particularly important for [LNG] terminals that are developed in phases.”*

*“Clear statement for non-regulated access to storage facilities”*

Generally the above points are consistent with the requirements stated above for a conducive investment climate. These are relatively simple and high level goals to be achieved, which should be supported by all stakeholders, however they are still not in place even after 8 years since the publication of the first Internal Gas Market directive. As infrastructure operators we see a pre-occupation in the European gas market with developing new access rules and guidelines, we do not see the same level of attention applied to ensuring that the conditions are in place, both nationally and at European level, to bring forward essential investments.

With regard to the topic of new rules and guidelines for access to infrastructure, the key issue for users of infrastructure is ensuring transparent and non-discriminatory access, whilst at the same time protecting commercial information. From our perspective, the existing European legislation and other policy measures are sufficient to deliver this objective. This is borne out by the emergence of competitive markets in a number of countries. However, we recognise that progress has been slower than anticipated and that in some countries the benefits of competition have yet to be felt. To address the situation it is necessary for Member States, regulators and infrastructure operators to fully implement the agreed measures without delay.

### **Non-domestic Investments**

Non-domestic investment<sup>1</sup> presents additional challenges as it often involves making an investment in one country that benefits another. Previously integrated companies were able to bring forward such investments through long term capacity and supply contracts. In a liberalised market these investments are more difficult to identify and fund. Currently at a European level there is a lack of transparency with regard to future investment needs. As investments take at least 5 years to realize, this lack of transparency leads to inefficient and non-timely investment. From the investment survey and stakeholder discussions, the following specific issues have been raised:

- With a move to short term contracts with end users and competition, very few gas suppliers are able or willing to take a long term view and signal their investment needs. This leads to a lack of investment and investment being made in a non-timely fashion.
- Without investment signals and long term binding commitments, TSOs are unable to make investments as the risk profile is not commensurate with the generally allowed rates of return.

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<sup>1</sup> In the electricity industry the term cross-border investment is commonly used to describe interconnections between two grids. However, we do not think that this term alone is suitable for the gas industry, where the investment may involve infrastructure transporting large volumes of gas over long distances and spanning several countries. We therefore prefer to use the term non-domestic investment.

- Even with sufficient signals and associated long term binding commitments, TSOs usually only build to the signal. Therefore no capacity is available for short term trading, limiting the scope for competition. In addition TSOs systems become tighter at a time when predictability of flows is decreasing, particularly with the emergence of traded market and LNG terminals.
- National regulators generally only have an obligation to protect their own end users, therefore in some cases this may prevent projects of European interest progressing.
- There is a lack of co-ordination between regulators and infrastructure operators in adjacent countries with regard to investment planning and capacity allocation, therefore the European Grid is developing inconsistently and inefficiently.

#### **4. Proposed Investment Action Plan**

GIE is committed, in conjunction with the Commission and other relevant stakeholders, to improving the investment climate for infrastructure operators in Europe. To support this, GIE proposes:

1. To establish a new work group within GIE specifically dedicated to infrastructure investment. This group will be chaired by a senior gas infrastructure executive, who will act as the focal point for all GIE discussions with stakeholders on this crucial topic. Key objectives and tasks of this work group will be:
  - To drive forward at a European level, where appropriate the co-ordination between infrastructure operators on future investments
  - To champion the removal of investment barriers throughout the EU
  - To identify differences in the legal frameworks and regulatory regimes, which impede investment in cross-border infrastructure
  - To develop and propose solutions for the removal of the identified impediments
  - To identify, share and publicise best regulatory practice in creating a conducive investment environment, including the promotion of effective cooperation among regulators and with infrastructure operators for cross-border projects
  - To work with the Commission on the Priority Interconnection Plan
2. To prepare a workshop on investment in October where further results from GIE's investment survey will be presented to the Commission, regulators and other relevant stakeholders, who will be invited to respond and input into these discussions.
3. To bring forward the issue of investment in all of the energy markets of the ERGEG Gas Regional Initiative, in order that the real practical issues of investments may be considered and addressed.



OGP  
International Association of Oil and Gas  
Producers

## **OGP Response to Green Paper A European Strategy for Sustainable, Competitive and Secure Energy**

### **Executive summary**

**July 2006**

The International Association of Oil and Gas Producers (OGP) welcomes the opportunity to comment on the European Commission Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy of 8 March 2006. Comments relate to the six priority areas mentioned in the Green Paper.

**1. Energy for growth and jobs in Europe: completing the internal European gas market**

OGP fully supports the completion of a competitive single European gas market. This must ensure both competitiveness and security of supply as demand for gas is rising. Technical interoperability of the European gas grid, compatibility of regulatory practice throughout the EU and contractual freedom must be the guiding principles, and the interests of the different market players must be balanced. To secure supply, investment in pipelines and LNG terminals must be facilitated and the necessity of long-term supply contracts recognised.

**2. An internal market that guarantees security of supply: solidarity between Member States**

Whilst oil trade is very mature and transparent in the commodities market, the gas market will experience increasing transparency and predictability as it matures. In any case, an energy market observation system should be limited to monitoring market developments and avoid active interference with market dynamics. On critical infrastructure protection, a careful gap analysis is necessary before any action is explored. Identification of critical infrastructure must avoid increasing the threat of terrorist attack. In the debate on the possible creation of strategic gas stocks, the effectiveness of current and growing infrastructure and commercial arrangements as well as of existing solidarity mechanisms should be evaluated before any new measures are envisaged.

**3. Tackling security and competitiveness of energy supply: towards a more sustainable, efficient and diverse energy mix**

OGP believes the establishment of the energy mix should be a function of energy companies responding to market forces within the energy strategies determined by each Member State. Any EU measures in this respect should aim to avoid incompatibility with these strategies and thus uncertainties over vital investments. For a secure energy mix a diverse portfolio of energy carriers is just as important as diversity of energy sources and transport routes. All energy carriers are equally important to supply security, and a level playing field between them must be ensured. The Green Paper does not address European indigenous production, which currently meets about 40% of oil demand in the EU and some 55% of its need for gas. Despite the maturity of the producing basins, the potential for this most secure source of oil and gas is considerable. Favourable framework conditions will support maximum recovery.

**4. An integrated approach to tackling climate change**

Climate change can only be tackled effectively in a worldwide effort. OGP welcomes the EU engagement in securing global support. Long-term clarity about the post-2012 regime is vital, as lead times in oil and gas production are up to 15-20 years and up to 10 years for large CO<sub>2</sub> reduction projects. The same long-term perspective is necessary for the EU greenhouse gas emissions trading scheme to become more effective. Renewable energy sources are part of a sustainable EU energy mix. For a competitive energy market, subsidies must be limited in time and energy taxation balanced. At present, carbon dioxide capture and storage is generally not cost-effective but would be an important transitional option to manage the risk of global climate change. Existing laws need to be clarified and adapted, and rules developed for safety, environmental protection and liability.

**5. Encouraging innovation: a strategic European technology plan**

OGP members will continue to address the challenge of developing improved technologies to find and produce oil and gas with a minimal environmental footprint, and ways to use fossil fuels more intelligently through decarbonisation and CO<sub>2</sub> management. Fostering independent university

research and attracting young people to hydrocarbon sciences and engineering are equally important.

## **6. Towards a coherent external energy policy**

For the industry to meet the challenges of access to resources, infrastructure development and investment security both inside and outside Europe, the political as well as the regulatory framework must be balanced and adequate. Whilst OGP would wish the planned Strategic Energy Review to acknowledge the value of European resources, OGP also supports a coherent external energy policy, which recognises the guiding role of the market, and will continue to assist in the dialogue with producer and consumer countries.

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### **About OGP**

The International Association of Oil and Gas Producers (OGP) represents the interests of companies engaged in the exploration and extraction of oil and natural gas, as well as national and other related industry associations. OGP membership spans the globe and accounts for more than half of the world's oil output and about one third of global gas production. From our London office, we foster co-operation in the area of health, safety and the environment, operations and engineering, and represent the industry before international organisations, such as the UN, IMO and the World Bank, as well as regional seas conventions, such as OSPAR, where we have observer status.

OGP Europe in Brussels represents before the EU OGP members who are active in Europe.