From:
Sent: mercredi 6 septembre 2006 16:43
To: TREN MAIL:
Subject: FW: A European Strategy for Sustainable, Competitive and Secure Energy - TVO's response to the consultation of the European Commission

Importance: High

Attachments: 0609_TVO_response_on_EC_energy_policy_consultation.doc; ATT859791.txt


0609_TVO_respons e_on_EC_energy...


ATT859791.txt (892 B)

Pour enregistrement.
Miro pour analyse

-----Original Message-----
From:
Sent: Wednesday, September 06, 2006 4:37 PM
To:

(TREN);
(TREN);

(TREN)
Subject: A European Strategy for Sustainable, Competitive and Secure Energy - TVO's response to the consultation of the European Commission
Importance: High

Dear Madam, Dear Sir,

TVO welcomes the European Commission's initiative to launch a debate on an energy policy for Europe with the Green Paper: "A European Strategy for Sustainable, Competitive and Secure Energy".

The EU has highlighted the importance of improving security of energy supplies, and meeting the reduction targets for greenhouse gas emissions while enhancing the EU's competitiveness in accordance with the goals of the Lisbon strategy.

World electricity consumption is forecast to more than double by the year 2050. An estimated 750GW of new capacity needs to be built in the EU by 2030 in order to meet the increasing demand and replace existing plants. All energy sources are needed in order to meet the growing electricity demand. Disregarding any option from the energy mix would diminish diversity and as a result, hinder security of supply.

Nuclear energy today supplies almost one third of EU's electricity in a competitive way and with no greenhouse house gas emissions. The European Commission can help ensure that nuclear energy continues to play an important role in meeting the EU geopolitical, economical and environmental challenges.

Attached you can find the response of TVO to the Green paper consultation.

If you have any questions do not hesitate to contact me.

Best regards

Kaija Kainurinne

<<0609_TVO_response_on_EC_energy_policy_consultation.doc>>

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TVO

6.9.2006

TVO'S RESPONSE TO THE ENERGY POLICY CONSULTATION

TVO welcomes the initiative of the European Commission to launch **a debate on a common approach on energy policy** in line with the goals of the Lisbon strategy and in order to meet EU targets for reducing greenhouse gas emissions.

Efficient demand side management and greater promotion of renewable energies alone cannot meet the EU's ever-growing need for electricity. World electricity consumption is forecast to more than double by the year 2050. An estimated 750 GW of new capacity needs to be built in the EU by 2030 in order to meet the increasing demand and replace existing plants.*

The contribution of all energy sources should be acknowledged in order to guarantee sufficient generation capacity. To disregard any option from the energy mix would diminish diversity and, as a result, hinder security of supply. Nuclear energy has an important role to play in creating a credible common approach on energy policy based on enhancing competitiveness, promoting sustainable development, fighting climate change and reducing external energy dependency.

TVO – as a private electricity company - is operating two nuclear power plant units and building a new nuclear power plant unit at Olkiluoto site in Finland. For TVO, as an active actor and investor in the energy sector:

- Nuclear power is the **best available alternative to base load electricity generation** to cover Finland's growing electricity demand and replacement of old fossil fired power plants.

- There are **few suitable alternatives for additional nuclear power,** as the potential for additional hydro capacity is limited, coal fired power plants have CO_2 constraints, and gas faces security of supply problems.

- **Biomass** is **complementary to nuclear power,** as nuclear power is used for base load power production and biomass is used in CHP plants.

- Nuclear power has a **role to play in reducing national CO_2 emissions** and therefore in meeting the Kyoto commitments. The new nuclear power plant unit OL3 reduces, when in operation, around 10 million tonnes of CO_2 emissions per year compared with equivalent production with

* Source: OECD-IEA World Energy Outlook 2004 Edition

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coal power. Finland's present greenhouse gas emissions are 70...85 million tonnes of CO_2 equivalent per year, and from the energy sector 54...69 million tonnes of CO_2 per year.

- **Production cost of nuclear power is stable and predictable for decades** to come, as changes in fuel prices have little impact on total cost, and predictability is important for the Finnish energy intensive industry and for their investments.

- Building nuclear power plants **reduces dependence on electricity imports** and hence increases security of electricity supply.

TVO's new investment in nuclear power can partly cover the growth in electricity consumption. This new nuclear build, together with investments in renewable energies, replaces old fossil fuel fired power plants coming to the end of they lifetime, enables Finland to meet the Kyoto commitments in reducing CO_2 emissions, guarantees stable and predictable electricity price and reduces dependence on electricity imports.

For TVO, as an active operator and investor in the energy sector, it is important that nuclear energy is regarded as an option for power production, also at the European level.

Stellungnahme

Energiepolitik /
Telekommunikationspolitik

Datum
16. August 2006

Mü/Me-II/2-12-45/00

Dokumenten-Nr.
D 0058

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1 von 7

Zum GRÜNBUCH der Europäischen Kommission

„Eine europäische Strategie für nachhaltige, wettbewerbsfähige und sichere Energie“

Der BDI ist Träger der Initiative
Deutschland
Land der Ideen

Bundesverband der
Deutschen Industrie e.V.
Mitgliedsverband der UNICE

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Breite Straße 29
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Der BDI begrüßt die Vorlage des Energie-Grünbuches der EU-Kommission als einen grundlegenden Diskussionsansatz über die Rolle einer echten gemeinschaftlichen Energiepolitik. Der BDI stimmt mit der im Grünbuch dargestellten Beschreibung der europäischen Energiesituation und den dargestellten Trends vollständig überein. Dabei sind die aufgezeigten Risiken und die Imponderabilien der zunehmenden Globalisierung der Energiemärkte keinesfalls übertrieben. Sie machen deutlich, dass unabgestimmte einzelstaatliche Energiepolitiken keine Zukunft mehr haben.

Der von der Kommission eingeleitete Diskussionsprozess in seinen sechs Elementen bietet die Chance, die heute einzelstaatlich zersplitterte energiepolitische Landschaft in ein kohärentes Gebilde zu überführen, ohne dass die Nachteile einer völlig zentralistischen Politik in Kauf zu nehmen wären.

Wenn grundsätzlich zu akzeptieren ist, dass EU-Mitgliedstaaten Souveränitätsrechte über die Ausbeutung eigener Energiequellen und über den Einsatz bestimmter Energiequellen nicht an die Gemeinschaft übertragen möchten, so ist zumindest zu verlangen, dass Entscheidungen hierüber auf europäischer Ebene transparent gemacht werden, denn klar ist – und die Kommission spricht dies auch deutlich an -, dass solche nationalen Entscheidungen Auswirkungen haben auf die Versorgungssicherheit, die Wettbewerbsfähigkeit und die Umweltverhältnisse anderer Mitgliedstaaten.

Ganz grundsätzlich sollte bei der Gestaltung einer europäischen Energiestrategie die Bedeutung der Marktkräfte gewürdigt werden. Denn immer und überall, wo ihnen in der Vergangenheit Raum gegeben wurde, effizient zu wirken, haben sie ihren Wert bewiesen im Hinblick auf

- die mengenmäßige Entwicklung der Energieträger,
- die Diversifizierung der Energiequellen,
- die Entwicklung der Produktionskosten und Verbraucherpreise.

Deshalb sollte auch für die zukünftige Sicherstellung der Energieversorgung den Marktkräften die Hauptaufgabe übertragen werden. Auf diese Weise ist der auch von der Kommission konstatierte hohe Investitionsbedarf am wirkungsvollsten sicherzustellen. Diese Investitionsvolumina erfordern enormes privates finanzielles Engagement, das vice versa offene und wettbewerbsfähige Märkte benötigt.

Zu den sechs prioritären Bereichen der Kommission stellt der BDI Folgendes fest:

I. Binnenmarkt

Die Fortschritte auf dem Weg zu einem wirklichen Binnenmarkt für Strom und Gas sind derzeit noch nicht ausreichend. Die Kommission hat dies selbst verschiedentlich u. a. in ihren Benchmark-Berichten und der Sector Inquiry festgestellt. Der BDI fordert die Kommission auf, nun alles ihr Mögliche zu tun, um sicherzustellen, dass das vorhandene gemeinschaftliche Regelwerk zur Schaffung eines wirklichen Binnenmarktes für Strom und Gas unverzüglich und wirkungsgleich in allen Mitgliedstaaten umgesetzt und angewandt wird, und zwar nicht nur dem Buchstaben, sondern auch dem Geiste nach. Dazu gehört auch, dass die Kommission darüber wacht, dass die Regulierungsbehörden in den Mitgliedstaaten überall gleichermaßen mit ausreichenden Befugnissen ausgestattet sind, die Binnenmarktregelen umzusetzen und ihre Einhaltung zu kontrollieren. Wenn dann noch eine stärkere Zusammenarbeit mit verbesserter Koordinierung der nationalen Regulierungsbehörden erfolgt, dürfte den Forderungen nach einem europäischen Super-Energie-Regulierer der Boden entzogen sein.

Für das Zusammenwachsen der Märkte und dem daraus resultierenden Wettbewerb spielt der Ausbau der grenzüberschreitenden Netzverbindungen sowie eine effiziente marktbasierte Bewirtschaftung der Interkonnektoren eine herausragende Rolle. Er muss deshalb konsequent von den Netzbetreibern vorangetrieben werden.

Mit besonderer Zustimmung hat der BDI zur Kenntnis genommen, dass die Kommission als eines der wichtigsten Ziele des Binnenmarktes die Stärkung der Wettbewerbsfähigkeit der EU-Industrie festgeschrieben hat und sie schlussfolgert, dass die sichere Verfügbarkeit von Energie zu erschwinglichen Preisen von absolutem Vorrang ist! In diesem Zusammenhang begrüßt der BDI auch die Einsetzung der hochrangigen Gruppe für Energie, Umwelt und Wettbewerbsfähigkeit, deren Arbeiten er positiv begleitet.

Solange insbesondere für die energieintensive Industrie ein wettbewerbsfähiges Strom- und Gaspreisniveau durch die oben angeführten Maßnahmen nicht erreicht ist, sollte unter Moderation der Politik neben den kurzfristig orientierten Strombörsen ein Markt von langfristigen Lieferverträgen zwischen Stromerzeugern und –verbrauchern etabliert werden. Ein solches Modell wurde bereits unter Zustimmung der EU-Kommission in Frankreich erfolgreich eingeführt. Die in diesen Verträgen zugrunde gelegten Bezugspreise richten sich nicht nach den aktuellen Markt- und Börsenentwicklungen, da diese den Abgleich von Angebot und Nachfrage für Langfristlieferungen der Industrie nicht richtig abbilden. Ziel ist vielmehr, für diesen Bereich ein neues Stromprodukt zu entwickeln, dessen Preis sich an den Vollkosten der Stromerzeugung im Grundlastbereich orientiert.

II. Solidarität zwischen den Mitgliedstaaten

Die Kommission macht Vorschläge, wie über die nationalen Vorkehrungen hinaus durch Gemeinschaftsmaßnahmen die Versorgungssicherheit für die EU insgesamt verbessert werden könnte. Im Wesentlichen laufen diese auf vermehrten Erfahrungsaustausch und auf Prüfaufträge hinaus, die nach gründlicher Analyse teilweise sinnvoll sein könnten. Allerdings erscheint doch sehr fraglich, ob diese Aufgaben wirklich neue Institutionen erfordern und nicht über bestehende Institutionen bewältigt werden könnten. Keinesfalls dürfen solche Bestrebungen darauf hinauslaufen, ohne gemeinschaftsrechtliche Basis – etwa aus einem europäischen Verfassungsvertrag - Energiekompetenzen auf die europäische Ebene zu verlagern und in Brüssel zu zentralisieren.

Was die Anlage von gemeinschaftlichen Gas-Reserven sowie deren Bewirtschaftung und Umverteilung in Krisenfällen anbelangt, könnte man über eine weiter verbesserte Transparenz nachdenken. Gründe für weitergehende Maßnahmen als die in der erst kürzlich erlassenen Richtlinie zur Elektrizitäts- und Erdgas-Versorgungssicherheit vorgesehen, sind jedoch nicht erkennbar.

III. Diversifizierung des Energieträger-Mixes

Der BDI setzt sich für einen breit diversifizierten Energieträger-Mix ein, der keinen ideologischen Restriktionen unterliegt und das Ergebnis von freien und wettbewerblich organisierten Märkten ist. Der Energieträger-Mix sollte nicht einheitlich auf EU-Ebene festgelegt werden. Nationale Eingriffe in den Mix sollten jedoch transparent erfolgen und auf EU-Ebene diskutiert werden, da sie, wie z. B. der deutsche Beschluss zum Kernenergieausstieg, in einem zusammenwachsenden Binnenmarkt vielfältige Auswirkungen auf die übrigen Mitgliedstaaten haben (Preiswirkungen, Klimawirkungen, Versorgungssicherheit).

Die EU-Kommission regt eine Überprüfung der EU-Energiestrategie mit Hilfe einer Analyse aller Vor- und Nachteile der verschiedenen Energiequellen an. Wenn es gelingen sollte, eine solche Diskussion ideologiefrei in den europäischen Institutionen zu führen, wäre in der Tat schon viel gewonnen.

Die Festlegung eines übergeordneten strategischen Ziels, das sichere und CO_2-arme Energiequellen als bestimmten Mindestanteil am gesamten Energieträger-Mix in der EU ausmachen, mag ja als politische Absichtserklärung reizvoll und vielleicht sogar für die politische Debatte hilfreich sein. Einer solchen Zielsetzung haftet jedoch der entscheidende Makel an, nicht auf der Basis von Markt und Wettbewerb zustande gekommen und damit beliebig zu sein!

IV. Klimaschutz

Die EU-Kommission setzt auf die Wettbewerbsfähigkeit der europäischen Industrie als Eckpfeiler ihrer Strategie für nachhaltige Entwicklung. Deshalb muss der Übergang in Europa auf eine weniger kohlenstoffintensive Gesellschaft in einer Weise geschehen, die die internationale Wettbewerbsfähigkeit der europäischen Industrie gewährleistet. Allerdings leidet Europa heute unter einer Vielzahl von Handicaps gegenüber seinen Handelspartnern. Der Energiekostennachteil ist eines dieser Handicaps. Die Strompreissteigerungen in Europa in der jüngeren Vergangenheit sind nicht nur auf weltweit höhere Öl- und Gaspreise zurückzuführen, sondern auch auf das europäische Emissionshandelssystem und die Art und Weise seiner Durchführung. Bei der anstehenden grundlegenden Revision des europäischen Emissionshandelssystems ist deshalb darauf zu achten, dass einerseits absolute Emissionsobergrenzen sich nicht wie Produktionsquoten für energieintensive Industriezweige auswirken und andererseits die Problematik Zertifikate/Strompreise gelöst wird. Falls es nicht gelingt, zu einer internationalen Klimaschutzübereinkunft für die Zeit nach 2012 zu kommen, muss verhindert werden, dass insbesondere die energieintensiven Industrien durch absolute Emissionsvorgaben aus der EU gedrängt werden („leakage").

Ganz grundsätzlich muss Klimaschutz als globale Aufgabe verstanden werden, die nur bewältigt werden kann, wenn alle Hauptemittenten gleichwertig in die Lösung der Aufgabe einbezogen werden. Für einen fairen globalen Wettbewerb der Unternehmen ist eine umfassende Einigung über internationalen Klimaschutz nach 2012 unerlässlich. Mithilfe der Kyoto-Mechanismen Emissionshandel, Joint Implementation und Clean Development Mechanism sollen die Klimaschutzkosten der Industriestaaten in „erträglichen" Grenzen gehalten und durch weltweite Zusammenarbeit der Klimaschutz effektiv und kosteneffizient durchgeführt werden. Das binnenwirtschaftliche EU-Emissionshandelssystem sollte so verbessert werden, dass es als Vorbild für den internationalen Emissionshandel dienen kann.

Europa hat viel zu bieten auf den Gebieten der Energieeinspartechnologien und der effizientesten Energieerzeugungstechnologien. Diese Technologien sollten möglichst rasch ihre Verbreitung finden in den sich rapide entwickelnden Ländern der Welt, insbesondere in China und Indien. Der weltweite Einsatz modernster Technologien reduziert Treibhausgasemissionen kostengünstiger und effizienter, als dies innerhalb der EU möglich wäre, und bietet Chancen für die europäische Industrie.

Energieeffizienz wirkt sich günstig auf alle grundlegenden energiepolitischen Ziele aus: Die Wettbewerbsfähigkeit, den Klimaschutz und die Versorgungssicherheit. Energieeffizienz hat auch grundsätzlich positive Auswirkungen auf die **industrielle** Wettbewerbsfähigkeit. Deshalb verwundert es nicht, dass die Industrie traditionell einen vorbildlichen Beitrag zur Energieeinsparung geleistet hat (z. B. stellt die deutsche Industrie im Durchschnitt heute ein Produkt mit nur einem Viertel der Energiemenge her, die sie für ein gleichwertiges Produkt vor ca. 40 Jahren benötigt hat). Dies erfolgt aufgrund marktwirtschaftlichen Verhaltens im Wettbewerb und trotz und nicht etwa wegen bürokratischer staatlicher

Vorgaben und trotz erheblicher Erfolge der Industrie im Umweltschutz, der ja meist mit zusätzlichem Energieverbrauch verbunden ist.

Die Energiepolitik ganz generell und auch die Kommission bei der Vorbereitung ihres Energy Efficiency Action Plan sollten sich leiten lassen vom Kriterium der Kosteneffektivität aller vorgeschlagenen Maßnahmen, einschließlich des Abbaus von bereits vorhandener Bürokratie im Bereich der Energieeinsparung. Die Fixierung willkürlicher Energieeinsparziele lehnt der BDI ab. Vielmehr sollte sich die Förderung von Effizienz- und Energieeinsparmaßnahmen an marktwirtschaftlichen Gegebenheiten orientieren, um Anreize zu schaffen, insbesondere in den Bereichen Gebäude und Verkehr vorhandene Potenziale zu heben. Die Schaffung eines europaweiten Systems für den Handel mit „weißen Zertifikaten" ist aus BDI-Sicht eine hoch komplexe Materie, die noch gründlicher Untersuchungen bedarf, zum einen hinsichtlich der Umsetzbarkeit, insbesondere aber auch hinsichtlich ihres Kosten-Nutzen-Verhältnisses.

Die Kernenergie ist ein Energieträger, der aus vielen wichtigen Gründen aus dem europäischen Energie-Mix nicht wegzudenken ist. Eine herausragende Rolle spielt sie auch zur Erreichung unserer ehrgeizigen Klimaschutzziele. Sie bildet dabei das Rückgrat unserer Grundlast-Stromerzeugung. Gleichermaßen ist die Kohle als Energieträger langfristig unverzichtbar. Dazu müssen wir das „Clean Coal Concept" weiterentwickeln. Dazu gehört zum einen die weitere Verbesserung der Wirkungsgrade, aber auch der Nachweis der erfolgreichen Kohlendioxid-Sequestrierung und die sichere unterirdische Speicherung des Kohlendioxids. Diesen Elementen muss die Forschungsförderung auch in internationaler Zusammenarbeit Rechnung tragen.

Für den Klimaschutz müssen auch in Zukunft die erneuerbaren Energien einen wichtigen Beitrag zum Energie-Mix leisten. Da sie in vielen Fällen auch weiterhin der Förderung zur Marktintegration bedürfen, ist es erforderlich, dass die Förderbedingungen in der EU einen entsprechenden Anreiz schaffen. Nur wenn die erneuerbaren Energien in den wettbewerblichen EU-Strommarkt integriert werden, können sie einen nachhaltigen Beitrag zur Energieversorgung in Europa leisten. Derzeit behindert jedoch die Vielzahl der nicht abgestimmten Fördermechanismen in den EU-Mitgliedstaaten den Wettbewerb in einem Energiebinnenmarkt und führt zu Fehlanreizen beim Bau von Anlagen an ungünstigen Standorten. Deshalb muss für eine europaweit effiziente Allokation die Förderung der erneuerbaren Energien EU-weit harmonisiert werden. Maßstab für die Harmonisierung muss eine wettbewerbsneutrale Finanzierung sein.

V. Innovationsförderung

Der Kommission ist darin zuzustimmen, dass Energieforschung als strategisches Element für künftige Energietechnologie forciert werden muss. Energieforschung muss Grundlagenforschung und anwendungsbezogene Forschung und Entwicklung umfassen. Eine enge Abstimmung und Verzahnung zwischen beiden ist erforderlich. Hierdurch wird eine schnelle Übertragung der Ergebnisse in marktgängige und wettbewerbsfähige Produkte ermöglicht. Dabei muss Energieforschung technologieoffen ausgerichtet sein und alle verfügbaren und sich abzeichnenden Energie-Optionen einschließen.

System- und Anlagentechnik bilden eine unverzichtbare Grundlage der Energieversorgung. Nur mit ihrer Hilfe kann sichergestellt werden, dass einzelne Techniken und Komponenten in einem Energieversorgungssystem zusammenwirken und die benötigten Energiedienstleistungen dort zu Verfügung gestellt werden, wo sie benötigt werden.

Die wirtschaftliche Nutzung von Ergebnissen der Energieforschung erfordert in vielen Fällen Markteinführungsstrategien. Wie sich bereits in der Vergangenheit gezeigt hat, war die Markteinführung bei vielen energietechnischen Innovationen erst durch eine zeitlich befristete und degressiv ausgerichtete industriepolitische Flankierung erfolgreich. Grundlage hierfür sollten Road-Maps mit klar fixierten Kostenzielen sein.

Ein besonderer Schwerpunkt der europäischen Energieforschung sollte angesichts der Bedeutung der fossilen Energieträger an der Strom- und Wärmeerzeugung die industrielle Realisierung sauberer fossiler Kraftwerkstechnologien und der Kohlendioxydabscheidung und –sequestrierung sein. Einen weiteren besonderen Schwerpunkt bilden aus BDI-Sicht die fortgeschrittenen Kernspalttechnologien und die Entwicklung der Kernfusion im Wege der Durchführung des ITER-Übereinkommens.

VI. Energieaußenpolitik

Die Begründung für die Notwendigkeit einer kohärenten gemeinschaftlichen EU-Außenpolitik hat die Kommission in ihrem Grünbuch überzeugend dargelegt. Es kommt jetzt darauf an, dass die Mitgliedstaaten sich dieser Bedeutung voll bewusst werden und sich auf die gemeinsamen Ziele und ihre institutionellen Umsetzungsmöglichkeiten einigen. Aus Sicht der deutschen Industrie ist es besonders wichtig, dass die EU die Prinzipien freier Märkte und der Investitionssicherheit auf Gegenseitigkeit verfolgt. Zudem sollten Energiethemen hoch auf den Agenden der Handelsabkommen zwischen Europa und seinen Wirtschaftspartnern stehen.

Es ist aber auch unabdingbar, dass die Europäische Union ihre Verhandlungsmacht durch ein gemeinschaftliches politisches Mandat stärkt. Dabei ist an zahlreiche Elemente zu denken, von denen Energieversorgungssicherheit abhängt: Unter anderem Zugang zu Energiereserven zu wettbewerbsfähigen Preisen; Investitionsmöglichkeiten in Abbau und Förderung von Energieträgern; Eliminierung von Exportrestriktionen und sonstige Behinderungen für europäische Unternehmen; Entwicklung von Public-Private-Partnerships für grenzüberschreitende Infrastrukturen in risikoreichen Regionen.

From: TREN ENERGY GP
Sent: lundi 25 septembre 2006 16:23
To: TREN MAIL
Cc:
Subject: FW: Reply to Green Paper "Energy"

DG TREN	CODE:					
A/ 33067						
ACTION:		ECHEANCE:				
		26. 09. 2006				
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			D	EFG	HI	

for registration dir C
attribution C1

-----Original Message-----
From: [redacted]
Sent: Monday, September 25, 2006 3:42 PM
To: TREN ENERGY GP
Subject: Reply to Green Paper "Energy"

Dear Sir or Madam,

Please find below our comments on the consultation on the Green Paper "Energy"

C. Diversification of the energy mix
Comment:
Waste is a very available resource and contributes to security of energy supply

D. Sustainable Development
Comment:
Waste-to-Energy's contribution to climate protection will increase if more waste, which is currently landfilled, will be thermally treated in Waste-to-Energy Plants and infrastructure e.g. grid access will be improved.
Support for investments in higher energy efficiency of Waste-to-Energy plants is necessary.
Recognition of highly energy efficient WtE plants as an energy recovery operation in the Waste Framework Directive is essential for future investment.

G. European energy policy
Comments:
Waste-to-Energy is the most cost-effective renewable option. The costs to avoid 1ton of CO_2 are between €7-€20/ton CO_2 with Waste-to-Energy, whereas the costs for saving 1ton of CO_2 with wind energy are €80 and with photovoltaic > €1000.

We would like to thank you in advance for taking our comments into consideration

Kind regards

Office Manager

CEWEP
Confederation of European Waste-to-Energy Plants
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From: TREN ENERGY GP
Sent: lundi 25 septembre 2006 16:11
To: TREN MAIL
Cc:
Subject: FW: Green Paper response

DG TREN	CODE:					
A/ 33068						
ACTION:			ECHEANCE:			
26. 09. 2006						
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G	H	I	J	CP1	CP2	CP3
DG	A	01				AAE
			DG	DGA	DGA	
			D	EFG	HI	

For registration dir C
Attribution C1 with D1

-----Original Message-----
From: [mailto: r@ukace.org]
Sent: Monday, September 25, 2006 12:37 PM
To: TREN ENERGY GP
Subject: Green Paper response

In 1998, twenty-two of Europe's leading companies involved with the manufacture, distribution and installation of a variety of energy saving goods and services came together to form The European Alliance of Companies for Energy Efficiency in Buildings - otherwise known as the EuroACE project. Members employ 733,000 people and turnover is 245 billion euros across the EU.

We welcome the publication of the Green Paper on secure, competitive and sustainable energy for Europe. In particular, we endorse the way it reinforces the central role that "a real leap forward" on energy efficiency will play, in achieving each of these three objectives.

The Paper correctly emphasises that, "besides tackling climate change", action on energy efficiency will "contribute to security of energy supply, and help limit the EU's growing dependence on imported energy." It goes on to stress that "it could also create many high-quality jobs in Europe" (elsewhere it says "up to a million new jobs") and "maintain Europe's technological leadership in a rapidly growing global sector."

This summarises how realising the acknowledged potential for energy saving can make the most substantial contribution to each of the declared policy goals: increasing competitiveness; improving energy security; addressing climate change; and creating worthwhile long-term employment opportunities.

Under the heading "Making More from Less", the Green Paper pledge is made for Europe to become "the world's most energy-efficient region". It stresses that "an effective energy efficiency policy does not mean sacrificing comfort or convenience. Nor does it mean reducing competitiveness. In fact, an effective policy in this area means the opposite; making cost-effective investments in order to reduce the waste of energy, thereby increasing standards of living and saving money.[2]

We note with approval that a new Action Plan for energy efficiency (covering 2007/2012)is promised during 2006, including a "long-term energy efficiency campaign including efficiency in buildings, notably public buildings." This will, the Green Paper states, serve as a "launch pad" to catalyse similar action worldwide, including "an international agreement on energy efficiency".

We applaud this proposal, and look forward to seeing such an Action Plan published during Q4 of 2006. Whilst we would fully anticipate that the main thrust of such an Action Plan will be incorporated within the final energy policy issued next year, the fact remains that such an Action Plan will of necessity require details of initiatives over the next six years which would unduly lengthen a paper intended for heads of government.

This Action Plan should cover detailed and timetabled measures under the following headings:
Changing Energy Behaviour;
Using the full potential of existing legal instruments, including horizontal measures;

Improving energy transmission;
Transport;
Financing energy efficiency, energy pricing, taxation and economic incentives; and
A global approach.

Any further delay in adopting such an Action Plan would send the worrying signal of an apparent diminution in interest in the importance of energy saving within European energy policy. We note that the previous six year Action Plan for energy efficiency was published independently of the Green Paper on energy security, issued contemporaneously in 2000, which promoted energy efficiency even then as "the first pillar" of energy policy.

EuroACE has been pleased that the Green Paper not only incorporates a strong bias towards concentrating as much attention upon managing energy demand as upon supply sources, the traditional subject of energy policy; but that in doing so , it heavily emphasises the importance of improving energy use in our buildings, currently responsible for consuming approaching half of all Europe's energy.

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BG Group Response to European Commission Green Paper:

" A European Strategy for Sustainable, Competitive and Secure Energy."

24th September 2006

INTRODUCTION

BG Group is an international natural gas company, active in around 25 countries in the world, working along the full length of the gas-chain. The company is a leading player in Atlantic Basin LNG. Its strong position in NW Europe, its broader portfolio of gas supply capable of accessing European markets and its current development of two European gas import terminals (in Wales and in SE Italy) make it potentially an extremely significant contributor to EU diversity of gas supply. The company also has power interests – in Europe and in other parts of the world. Our comments in this response relate in large part to natural gas issues, though there are some references to electricity and climate change issues.

We have followed the European energy policy debate closely and have consistently supported attempts by the Commission to create a climate for security of energy supply built upon a diversity of supply sources. We have consistently supported the drive towards liberalisation of the EU's gas market and have called for full implementation of the Second Gas Directive. Our view is that there may be a need for further legislation, if the goal of an open and transparent single European gas market is to become a reality. We also support liberalisation of European power markets.

We welcome the Green Paper and would make the following key points:

- Many of the challenges identified in the Green Paper could be addressed in our view by completing the single European Market; the creation of an open and transparent market would make a significant contribution towards security of gas supply, in our view. We reject absolutely the suggestion that liberalisation and security of supply are policy goals that cannot co-exist
- As well as liberalisation, clarity around the future of the EU Emissions Trading Scheme post 2012 is essential, if investors are to have confidence about major infrastructure commitments – particularly investment in power plant
- The EU should not take any action that seeks to undermine individual Member States' autonomy over their own energy-mix; but, with this *caveat*, it could be constructive to identify common positions on energy policy which might strengthen Europe's ability to negotiate with external producer countries
- The European Commission should seek to identify key infrastructure and supply projects it believes are important for the completion of single gas and power markets and which it believes it can help bring to fruition. However, ultimately, only projects regarded as viable by private sector investors are likely to proceed.
- The Commission has been hampered in the past by its inability to put sufficient human resource into potentially significant political/energy relationships. Either more resource needs to be made available or there has to be an exercise of re-prioritisation

- The Commission has a mixed record in recent years in its negotiations over energy policy with external producer countries. There is a need for greater subtlety and *realpolitik* and less stridency in some of the key relationships.

We address these points in more detail below. Our response takes the form of commentary on sections of the Green Paper. Hence, the numbers below relate to the relevant paragraphs in the Green Paper itself.

2.1 Energy for growth and jobs in Europe: completing the internal European electricity and gas markets

BG Group, an international natural gas company, has consistently supported the creation of a genuine, single gas market, spanning Europe and believes that a liberalised gas market will underpin energy security. However, whilst we believe that there could be some basic principles relating to energy policy on which member states could agree, we do not believe it to be necessary to develop a detailed, common energy strategy.

Each member state will want to retain a degree of autonomy over its approach to the energy-mix. We should not seek to change that approach, though, of course, increased member state cooperation over energy supply security is desirable.

In terms of measures to achieve a genuine single market, we support the current DG Comp sector investigation and believe that the process could bring about some of the changes required. In our view DG Comp and DG Tren need to work together to deliver the following:

- Ownership unbundling of pipelines from supply affiliates. This will solve problems of conflict of interests, lead to fairer management of capacity and encourage maximisation of capacity utilisation.
- Effective rTPA, including congestion management and robust 'Use it or Lose it' (UIOLI) mechanisms, on all pipeline capacity including transit pipelines. Access to capacity, particularly transit capacity, is crucial to enable trading across markets.
- Consistent application of regulation between Member States to ensure that there are not artificial impediments to the free flow of gas across, between and within markets.
- Regulated Third Party Access for storage when, as stated in the Second Gas Directive, this is "technically and/or economically necessary for providing efficient access to the system for the supply of customers".

We believe that these measures will help create an open and transparent European gas market. Provided we can also achieve clarity around the future shape of the European Emissions Trading Scheme as early as possible, we believe industry players will be able to plan their investments with more confidence.

(i) A European Grid.

BG agrees wholeheartedly that effective regulated third party access to the gas transportation grid is essential to realise a true European gas market. In particular, actual access to transit capacity is essential to enable cross-border trade. However, given the current stage of development of the gas market, it is not clear that developing a common **European Grid Code**, similar to the UK's Uniform Network Code, is practical at the moment.

The reason for this is the number of different pipelines and interested parties across Europe. Trying to reach agreement for a Code that applies to different pipelines that cross the borders of a number of different Member States would be a time-consuming and ambitious task. It took over two years for the UK to develop the Network Code, which applied to one pipeline system and one operator with no cross-border issues.

Instead, effort should be focused on existing initiatives such as: the ERGEG Regional Market Initiatives; and enhancing co-operation between Member States and regulators on cross-border issues. Regulators should ensure that national regulations and grid codes do not create unnecessary obstacles to cross-border trade.

Success could come from coordination on:

- Common approaches for "open seasons" for new capacity, enabling shippers to make informed decisions when booking capacity;
- Transparency on issues such as capacity booking to enable shippers to book capacity across different border points;
- Alignment of timetables for investment in new capacity;
- Harmonised rules relating to capacity charges and related services to ensure efficient investment;
- Work on non-tariff issues, such as gas quality, to ensure these do not hinder cross border trade.

BG believes that the proposal for a **European Regulator** is not yet timely. BG recognises the attraction of a supranational regulator analogous to the FERC in the US. However, we believe that agreeing the framework and detailed working arrangements for such a regulator would take up time and effort that could be better spent in making the existing framework of national regulators work more effectively.

Our preferred alternative would include coordinating measures such as those outlined above. Proper enforcement of existing Directives and Regulations by Member States and Regulators is also of critical importance. By working on practical issues – for example via the ERGEG Regional Market Initiative - participants would also gain a better understanding of where the need for a pan-European approach exists and where regional solutions, involving cooperation between regulators, might be more appropriate.

In light of our comments above on the European Grid Code, in our view it is not yet necessary to establish a **European Centre for Energy Networks**. A number of organisations already exist that enable TSOs to contribute to ERGEG's Regional Market Initiatives and the Madrid Forum - for example, the Gas Infrastructure Europe organisation.

(ii) A priority interconnection plan.

While it can be helpful for the European Commission to identify gas and power projects that it believes might be of strategic importance – and, on occasions provide funding for, for example, feasibility studies, ultimately private sector investors will decide which projects are viable.

However, a key role for the Commission and Member States lies in ensuring that there is a regulatory framework in place, which enables companies to invest in projects. In the case of regulated TSOs, this includes clear rules on investment procedures and methodologies - for example, "open season" procedures. Companies wishing to book capacity on regulated networks and, thereby, underwrite TSOs, investment in infrastructure need clarity and certainty as to what capacity rights they are buying.

The Second Gas Directive already has provision for companies wishing to invest in new capacity to apply for exemption from regulated third party access. This procedure has been instrumental in enabling investment in new infrastructure in the UK, for example the Dragon LNG terminal in which BG is a partner. The Commission should continue to allow companies to apply for such exemptions, using the criteria in the Second Gas Directive to ensure projects do not undermine the objectives of the internal gas market.

There is always a role for government to act as a publisher of information to help market participants make efficient investment decisions. The Commission and Members States can publish information, if they wish, which gives a view on future sources of supply and demand which will highlight where there may be need for future investment. (See also below response to 2.2 (i)).

(iv) A level playing field: the importance of unbundling.

BG believes that ownership unbundling of TSOs from supply and marketing companies will significantly help achieve the goal of a competitive European gas market. The exercise of ensuring that there is no cross-subsidy or other forms of discrimination by TSOs in favour of their supply and marketing affiliates requires significant enforcement and compliance costs. By contrast, ownership unbundling avoids such costs. Experience also shows that unbundled companies are better able to focus on improving third party access for all customers because they are indifferent to the identity of those who use their pipelines. Utilisation – or revenues – become the driver.

This is an approach that may help regulators achieve the goal of a competitive market sooner and at less cost. For example, in Germany, the regulator has the daunting task of tariff regulation for dozens of transportation and distribution companies. At the same time, the regulator is trying to develop a coherent system of regulated third party access, involving dozens of transmission and distribution companies. If there were to be full ownership unbundling, the regulator could focus on third party access as a priority.

In an unbundled world, all gas shippers would face the same transportation and distribution costs. Shippers would be able to compete for customers on the basis of the cost of gas and other elements, such as service. In a world where there is still cross-ownership of TSOs and marketing and supply arms, there remain opportunities for cross-subsidy, which give integrated firms an unfair advantage.

Ownership unbundling is an ambitious task. However, the principal benefits of unbundling would derive from a focus on the major pipeline companies, such as those involved in transit and high pressure transmission.

In Germany, for example, true third party access to the major pipeline networks, facilitated by unbundling, would enable new entrants to market gas to large industrial consumers and Stadtwerke. This would represent a major step towards a competitive wholesale market. Experience of the sale of distribution networks in the UK shows there is considerable appetite amongst investment institutions, such as banks and pension funds, for stand-alone pipeline companies.

(v) Boosting the competitiveness of European industry.

In our view, the best way to achieve this is through effective, competitive energy markets. It is important to recognise that the European gas market is not an island and, therefore, the price for gas is influenced by supply and demand for gas in other markets. Such interconnectivity will only increase as LNG becomes a greater source of supply in Europe. LNG acts as the effective link between Europe and other gas markets, such as the US.

We welcome increased cooperation between the Commission, Member States and regulators to ensure that Europe is an attractive place in which to invest in gas infrastructure and sell gas. The creation of large liquid wholesale markets will give potential suppliers the confidence they need to wish to sell gas into Europe. Both the US and UK experiences have shown that liquid markets give suppliers such confidence. Both markets have attracted new supplies of gas - both LNG and pipeline - as their indigenous supplies have depleted.

2.2 An Internal Energy Market that guarantees security of supply: solidarity between Member States.

(i) Enhancing security of supply in the internal market.

BG believes that, to function effectively, markets need information. There is a role for a **European Energy Supply Observatory** to monitor demand and supply patterns in EU energy markets. The advantage of such an approach is that a disinterested body can aggregate information collected from commercial enterprises and publish it without compromising commercial confidentiality.

Correctly implemented, such an approach could provide the market with an informed overview of likely demand and supply to enable it to make better investment decisions. Such a body could also publish aggregated information on capacity utilisation, though it would have to be careful it did not compromise the commercial confidentiality of market players. It would also be important to ensure that the Observatory did not become a mechanism placing burdensome demands on industry to collect information.

As we note above, organisations already exist to enable TSOs to contribute to the development of the internal market, thereby reducing the need for a **European Centre for Energy Networks**. However a such an organisation could be a means for establishing common standards where these might be appropriate.

Mechanisms to ensure rapid solidarity and possible assistance. In a competitive market, gas should flow to where prices are highest. In a situation where a country has

faced difficulties due to, say, damage to infrastructure, one would expect prices to rise and gas to flow there until either demand is met or all available infrastructure is utilised.

The best way to ensure rapid response is to have a competitive gas market where there are no artificial barriers to the free trade and flow of gas. Individual member states may wish to take further measures as "insurance" against possible emergencies, depending on their individual circumstances - for example, additional interconnection capacity.

Policy-makers should recognise that government-inspired investment in additional interconnection capacity may have the effect of "crowding out" commercial investment in infrastructure. Companies are unlikely to pay for capacity in an interconnector if they know that additional capacity is being built which will also be available for shippers to use. Costs incurred by "insurance" measures should be borne by consumers as they are the principal beneficiaries.

(ii) Rethinking the EU's approach to emergency oil and gas stocks and preventing disruptions.

Policy-makers need to recognise that gas stocks are only one means of dealing with supply interruption. Demand management, fuel switching and diversity of supply also have a role to play. Furthermore, policy-makers need to recognise that requirements to hold gas stocks may have the unintended effect of "crowding out" commercial investment in gas storage if companies believe that Member States will release gas stocks when prices become high, thereby undermining the commercial rationale for storage.

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

We would question some of the thinking behind a Strategic EU Energy Review, as outlined in the document. Member state governments and energy companies are already engaged in analyzing the advantages and drawbacks of different sources of energy and it is hard to see what a further EU analysis could add.

Similarly, while agreement around "an overall strategic objective" might appear desirable, it is hard to see how we could make significant progress, given the understandable preference of each member state for developing an energy-mix best suited to its own context. There is a real risk that any overall strategic objective would be general and potentially meaningless.

The goal of agreeing a minimum level of the overall EU energy–mix deriving from secure and low carbon energy sources is, of course, laudable but it is hard to see how it could be achieved, if member state energy policy autonomy is to be safeguarded. We support initiatives like the UK's Renewable Obligation, whereby suppliers are required to provide a minimum percentage of their power from renewable sources – a percentage rising over time. But it is a scheme that can work in the UK where there is significant potential for wind and, perhaps over time, tidal power. It might not be as practical across every member state.

2.4 An integrated approach to tackling climate change

We support the EU ETS but, as we mention above, the sooner we can reach agreement about a meaningful new framework for the scheme post-2012, the easier it will be for players in the energy industry to make long term plans for major infrastructure investments – power plant in particular.

2.6 Towards a coherent external energy policy

Europe would undoubtedly benefit from greater cooperation in its relations with external energy producers. We agree with the statement, "Follow-up should take the form of regular formal political level discussions at Community level, involving Member States and the Commission in a manner to be developed." However, we should not seek to be too prescriptive about policy positions taken and an External Energy Policy may only be possible to achieve in a few major areas.

Nevertheless, we agree that, where consensus can be reached, it is desirable to speak to major suppliers like Russia, the Middle East, Africa and others "with the same voice" However, we would argue that the Commission has a mixed record in negotiating with major gas suppliers.

For example, in our view the negotiations over Russian accession to the WTO produced an outcome that was imbalanced and clearly favoured Russia. We have also experienced situations in which the Commission has been keen to take action – for example in improving dialogue with the Caspian countries – only to find it lacking the human resources to follow this through. If an effective external energy policy is to be (a) agreed and (b) pursued, member states and the Commission have to ensure that enough resource is made available to ensure that these aims to not remain mere aspirations.

(i) A clear policy on securing and diversifying energy supplies

We welcome the Commission's interest in and support for diversifying energy supply by encouraging the construction of new infrastructure – notably cross-border pipelines and LNG import terminals. We recognize also the limited powers the EU has in these areas, but we note for example the way in which the Commission has funded feasibility studies for pipelines such as the Nabucco and taken policy measures to help LNG import terminal developers to proceed with projects.

In our view, a dialogue with the Caspian countries to investigate opportunities for alternative gas pipeline routes to Europe would be extremely useful. We would draw attention to our comments above about Commission human resource constraints and urge that strategic options like this either be prioritized or have sufficient resource devoted to them. Bringing Caspian gas to Europe through routes other than *via* Russia could represent a major security of supply benefit for EU member states.

Whilst we welcome EU ambitions to create important new interconnections with would-be supply countries and regions, our impression has been that perhaps too much Commission time has been spent in developing elaborate, ambitious, long-term concepts. We believe that this time could often have been better spent on developing more concrete medium-term options. We would urge a sharp focus on practical projects that can deliver real results.

(a) Dialogue with major energy producers/suppliers

We support the ambition of the EU to develop a new initiative in relation to Russia and agree with the statement, "A true partnership would offer security and predictability for both sides, paving the way for the necessary long-term investments in new capacity."

Again, we would urge more pragmatism in the EU negotiating position. Russia is clearly determined to resist the EU's insistence that it follow the European example and open its domestic network to competition. An open-access regime in Russia may be desirable but the Russian Government and Gazprom believe – rightly or wrongly – that it would seriously undermine their respective economic positions. Hence it is not a short-, or even medium-term option.

The EU needs to take a longer term perspective over this issue. As the situation stands today, Russia – though unlikely to reduce its European exports - is outlining more and more frequently its ambition to enter alternative markets. There may be an element of bluff in this. For example, gas exports to the East, other than from Sakhalin, in practical terms are a long way off. However, the EU would be better advised to set a realistic time-frame around potential reform within Russia and develop an interim strategy of mutual benefit. There is no harm in the EU setting out its longer term, principled position on access to the Russian network but to lay too much emphasis on this at this stage is unlikely to produce results; indeed it may prove counter-productive.

Short term policy goals for the EU could include improved governance and contract sanctity within Russia.

(b) Developing a pan-European Energy Community

We support in principle the Commission's aspiration of extending the area covered by the EU's energy policy *'acquis'* but we would again urge caution about the pace of progress. The EU needs to show greater political sensitivity about how supplier countries in particular might perceive such an approach. Yes, Europe is an extremely attractive market for, for example, Russia and Algeria; but the EU needs to avoid being too prescriptive about its terms of trade, if it is not to alienate key suppliers. We should focus on establishing agreement around a simple principle:

EU security of gas-supply = Producer country security of revenues

We can outline our principled positions but an element of *realpolitik* is required here. As we suggest above in relation to Russia, we need to be conscious of the reasons why producer countries might not be ripe for full 'European' liberalisation in the short term.

We need to establish our own working model of a truly open and transparent European market before we can expect others to sign up enthusiastically.

(iii) Reacting effectively to external crisis situations

A "formal targeted instrument to deal with emergency external supply events" could represent a positive development, were it to take the form of mutual help mechanisms with member states under supply pressure being assisted by other member states. However, the reality is that this mechanism would be most efficiently provided by the realisation of a liquid transparent, single European gas market.

We saw during the winter of '05-'06 supply pressures on the UK, which a properly functioning market would have eased more efficiently than proved to be the case. Gas would have flowed in the right direction and tightness would have been eased more rapidly. A series of subsequent analyses concluded that part of the reason why gas did not flow to where it was needed most during that period was because of the failure of some companies and member states in Continental Europe to open their networks and markets.

It would not be a good idea for the "formal targeted instrument" designed to deal with emergency external supply events to take the form of intervention from Brussels or elsewhere, as this could further dislocate the market.

(iv) Integrating energy into other policies with an external dimension

We would support any attempt to extend the EU ETS or develop a version of it on a more international scale. It is illogical for Europe to make targeted efforts to reduce emissions, if other parts of the world – particularly some of those growing at the fastest pace – do not do likewise. The EU drive for lower carbon emissions should go on regardless and short-term progress on international initiatives may be heavy going but it is essential for the EU to keep up its lobbying efforts with a view to creating a more global proposal.

From: TREN ENERGY GP
Sent: mercredi 27 septembre 2006 19:51
To: TREN MAIL
Cc:
Subject: FW: Comments on the EU Green Paper on "European Strategy for Sustainable, Competitive and Secure Energy"

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attribution C1

-----Original Message-----
From: l s [mailto: @velux.com]
Sent: Wednesday, September 27, 2006 3:30 PM
To: TREN ENERGY GP
Cc: l
Subject: Fw: Comments on the EU Green Paper on "European Strategy for Sustainable, Competitive and Secure Energy"

With reference to your mail yesteday to we send you attached our comments. If you should prefer to get this in form of a letter, please let us know and we shall forward it to you.

Best regards,

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----- Forwarded by Lena Chawes/V-SM/VKI on 27-09-2006 15:21 -----

MEMO

Ref: KOv/LC Date: 27 September 2006
File: REL - POR-01

Subject:	**Comments on the EU Green Paper on "European Strategy for Sustainable, Competitive and Secure Energy"**
Spoken to:	
Handled by:	d, VELUX A/S
To:	The EU Commission/DG TREN
Copy to:	/V-SM

In general VELUX is supporting the three principal goals of the Green Paper on energy (sustainable, competitive and secure energy).

The Green Paper presents a number of concrete proposals to endeavour compliance with the three goals. One of them is headed " EU must meet the challenges of the climatic changes in a way, which is in keeping with the Lisbon-goals".

One of these proposals is to promote energy efficiency. The objective is to save 20% of the energy EU will consume up to 2020. Buildings play an important part in this and not least information on the possible energy savings in this relation and we would, therefore, appreciate that

- the directive on Energy Performance of Buildings would be extended so building as from 100 m2 would be included in article 5,
- energy savings and energy efficiency of buildings would include integration of renewable energy for heating and cooling of buildings and that more rigorous goals are set in order to promote this area,
- the directive on Energy Performance of Buildings should explicitly require that all new buildings of more than 100 m2 must be prepared for establishment of renewable energy. *(Precisely in new building the repayment period of such investments is favourable, as normally it will only be the question of marginal extra costs)*
- goals are set for the use of passive systems for heating and cooling, e.g. dynamic constructions and windows with shutters can facilitate energy efficiency of the building both summer(days) and winter(nights); just as natural ventilation facilitates energy efficiency of buildings. *(ES-SO, the European Solar Shading Organization has in the report "Energy saving and CO2 reduction potential from solar shading systems and shutters in the EU-25" estimated that up to 10% of the used energy in buildings can be saved by use of external shutters)*
- energy efficiency of buildings is considered in connection with indoor climate and that future requirements will also facilitate the development of healthy buildings with fresh air and daylight. *(We spend up to 90% of our time indoors and it is important that indoor climate is part of all considerations on energy efficiency)*
- the conduct of the users is very important for the indoor climate. Therefore, automatic control of the indoor climate by so called IO-homecontrol is of considerable importance in connection with energy efficiency, and this is why we recommend that such systems are included in information campaigns on energy savings.

Concerning the use of financing instruments and mechanisms to promote investments increasing energy efficiency, VELUX would like to call the attention of the Commission to the large potential available in renovation of the huge multi-storey housing areas, which are found in the latest new EU member states (EU10). A more extensive set of rules is needed which will ensure the conditions for both the energy supplier and the consumer in order to ensure that the energy efficiency initiatives will not come to a standstill due to legal discrepancies. Finally, it could be considered to promote the possibility of utilizing the existing flat roof to build new dwellings that would contribute to finance the total renovation of the house. *(A joint study between IEA and EuroACE "High-Rise: Changing the view" has estimated that around 40% of the energy consumption in the existing multi-storey houses in EU-10 could be saved*

including new constructions on the roof as co-financing).

VELUX has been pleased to note that EU structural funds for 2007-2013 to a limited extent can be used to support such purposes – preferably in co-financing with credit facilities from The European Investment Bank and the Council of Europe Development Bank. VELUX would recommend that DG-TREN, endeavouring to obtain future energy efficiencies, would ensure that these financing instruments are used as much as possible without requiring implementation of too much bureaucracy and, preferably, to an increased extent. In this connection, we would recommend the Commission to follow the development of this area and promote the use of structural funds for housing renovation. This could e.g. be done through a yearly follow-up incl. presentation of the best examples of housing renovation (Information campaigns).

As part of the Commission's preparation of a long-term schedule for use of renewable energy, we have the following comments:

Concerning sustainability and secure energy, VELUX would like to point out the possibility of the Commission creating further basis for use/propagation of renewable energy – and not least thermal solar energy which in an adept way can be installed in houses/dwellings in such a way that this system will displace the use of fossil fuel for heating. VELUX is aware of the ongoing work on the future directive within this area (Heating and Cooling) and will submit separate comments on this.

VELUX recommends that EU should set renewed (more rigorous) goals for the share of solar energy of the total energy consumption in the EU and that a common rule should be implemented that (at least) all new buildings must be prepared for solar heating. Some EU member states have already taken initiatives towards this – this is the case for Slovakia, Spain and Portugal.

Royal Dutch Shell plc
Response to the EU Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy

Overview of Shell in Europe

Royal Dutch Shell plc is an integrated group of companies, with operations in over 140 countries and territories, that delivers a wide range of energy and petrochemical solutions to customers. Within the EU Shell employs over 50,000 people, has interests in 17 refineries, maintains a network of 15,000 service stations, has Upstream interests in eight countries and serves over seven million customers a day.

Shell is a European company with our global headquarters in Holland, our downstream headquarters in Britain and major operating and research centres across the EU countries. Shell plays a role in bringing gas into the European market and distributing gas across the EU. Europe represents a core operating area for Shell and we are here for the long-term in both the upstream and downstream operations.

1. General Position Statement

1.1. Shell welcomes the publication of the European Union (EU) high level Energy Green Paper. The EU has an important role to play in securing sustainable energy supplies and the efficiency of European markets, by supporting enterprise initiatives and ensuring the coordination of efforts across national governments, including towards non-EU partners and other stakeholders. A European energy policy can also contribute to both national and global efforts to enhance; energy efficiency, energy diversification, ensuring the best use of indigenous resources and the reduction of carbon emissions.

1.2. Shell is also pleased with the Commission's initiative to continue the long-standing consultation process that builds on the Madrid Forum and recently the Berlin Fossil Fuels Forum regarding the development of energy policy, to which the industry is actively contributing. In addition, we are 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. We would emphasize the need for strong industry participation when developing the detail of individual proposals.

1.3. Shell sees the Green Paper not isolated, but in the context of other initiatives currently under way, namely the energy sector inquiry from DG COMP, the initiatives from DG TREN and the Roadmap initiative from ERGEG. We believe it is important that these initiatives along with the underlying policies are closely aligned, otherwise market stability and predictability could be jeopardised.

1.4. As the European Union shifts towards greater dependence on extraneous energy sources, and as producers face an increasingly challenging environment in terms of exploration and production, Shell hopes that the outcome of the various initiatives will result in the promotion of those factors that are critical to underpinning the future of the sector, namely:

- Free and competitive markets
- Security of supply
- A regulatory environment that is clear, stable, predictable and applied equally throughout the European Union
- A regulatory environment (including the competition rules as applied to the sector) that encourages continued investment and allows companies the necessary flexibility to manage risk; and
- The protection of the environment.

1.5. Shell particularly welcomes the way in which the current debate on European Energy Policy takes account of the key challenges of promoting security of supply, competition and sustainability. It is important that any policy initiative balances these, sometimes diverging, goals. To that end, Shell supports the statement of the Council of Energy Ministers (Luxembourg, 8-9 June 2006):

1.6. "The right balance should be found among the three objectives of competitive markets, security of supply and sustainability".

1.7. Shell sees a positive opportunity that would benefit the consumer in the EU from working together to support indigenous energy companies in securing access to non-EU countries. A dialogue with producer countries based on reciprocity, thus giving EU energy companies fair access to upstream resources as much as non-EU companies access to the EU downstream opportunities.

Comments on the six priority areas as defined in the Green Paper:

2. Free and competitive markets

2.1. Shell agrees with the Commission's observation that sustainable, competitive and secure energy will only be achieved with open and competitive energy markets. We believe that such markets, operating on a level playing field within a transparent and stable fiscal and regulatory framework, will best meet this challenge. Furthermore, we believe that open markets will attract and retain the necessary long-term capital investment required to meet future energy needs.

2.2. Shell concurs with the Commission's assessment of energy supply/demand trends globally and for Europe, and of the substantial need for investment to satisfy growing demand over a prolonged period. Nevertheless, Europe will continue to be dependent on oil and gas imports, which are expected to grow. From a Downstream perspective, global oil and gas markets are well developed and have extensively proved their ability to generate the required inter regional flows of both crude oil and finished products in response to varying regional supply/demand balances.

The European Gas Market

2.3. Shell supports the establishment of an internal European gas market. In our view it is important that the provisions of the European Gas Directive are implemented fully and equally in all European Member States.

2.4. Shell believes that the provisions of the European Gas Directive are sufficient to achieve the goal of a functioning, competitive European gas market. In Shell's view it is now important to implement provisions fully and to ascertain that these are complemented by

efficient processes, rather then contemplating prematurely new legislative measures. Shell supports the drive towards better interoperability of European gas networks and sees benefits in regulatory convergence, provided that this results in fit for purpose regulation.

2.5. We do see a tendency of favouring short-term aspects of the gas market (short-term markets, hub trading, liquidity and spot prices). Whilst Shell acknowledges that there is a role for short-term business in the gas market, Shell also sees that the gas business in Europe is fundamentally long-term orientated.

2.6. The importance of long-term contracts is recognised in the European Gas Directive as well as the Security of Gas Supply Directive. Recent statements by Commission representatives indicate that the long-term import arrangements for gas are not in the scope of investigations carried out by DG COMP or national competition authorities. However, the continued debate around this topic is unhelpful.

Energy Prices

2.7. With regard to energy prices, it has to be realised that the European energy industry now operates in a global market with global influences, not least on prices. The Green paper mentions that "... the link between oil prices and gas prices is unfortunate. At times of high and rising oil prices it is actually also unjustified since oil and gas are no longer competing energy sources to any significant extent.". Shell does not agree with this statement. Oil is globally the benchmark energy source and is a widely traded commodity with a mature market, provides a benchmark for energy pricing. The linking of gas prices to the price of oil is a logical consequence of inter-fuel competition and therefore safeguards the competitiveness of gas.

2.8. High energy prices are an obvious concern, e.g. for energy intensive industries that are directly exposed to variations in energy prices. Our experience in continental Europe suggests that industrial users are foremost interested in price stability. In recent contract renewals in Germany, large industrial customers opted to maintain oil price indexation in their contracts given the benefits this provides.

3. Security of Supply

3.1. Shell believes it is important to differentiate between the energy source availability and deliverability/transit aspects of supply security. Both of these aspects will be supported by a diversity of supply sources, a policy Shell has been following for decades.

3.2. Shell 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.

Compulsory stocks and transparency

3.3. 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.

3.4. Shell 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. We believe that if the 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.

3.5. In order to maintain controllable, effective and quickly deployable oil security stocks throughout the European Union, no further complexity should be added to current legal requirements to maintain a minimum security stock level. Furthermore, Member States should remain responsible for ensuring security of supply within their country.

3.6. To safeguard security of supply, substantial investments along the whole supply chain are required, inside and outside of Europe. We have stressed at various occasions that a stable, predictable framework that provides a positive investment climate is of utmost importance. Again, Shell appreciates that this view is reflected in the statement by the Council of Ministers.

Infrastructure and Indigenous Resources

3.7. It should be noted that energy projects in both the upstream and downstream parts of our business are long-term in nature with significant front-end capital expenditures that will need to earn their economic returns over 20 years or so. Therefore, the utilisation of long-term contracts is vital in such circumstances. Long-term contracts may well contribute to ensuring full use is made of infrastructure once constructed.

3.8. The European Gas Directive foresees exemption from Third Party Access (TPA) for new infrastructure. We believe it is important that the application of this provision is based on objective and transparent criteria. The experience to date with the application of Article 22 (as transposed into national legislation) is positive; major infrastructure investment decisions in the EU (e.g. the BBL pipeline and various LNG terminals) have been based on exemptions. Renewed questioning of the appropriateness of exemptions in general (exemptions are listed as "Issues under Review" in the DG COMP sector inquiry interim report) does undermine stability and predictability of the framework which underpins investment decisions.

3.9. Availability of supply will be safeguarded by the combination of maximum use of indigenous resources complemented by gas deliveries from the major resource holders. This requires proper relations with the resource holding countries. The Green Paper mentions in its introduction the increasing import dependence of Europe and the fact that some of the imports come from regions threatened by insecurity.

3.10. Fossil fuels are likely to remain a central part of the energy mix for many decades ahead. However, more fossil fuels, to meet increasing global energy demand, will come from "unconventional" sources, such as extra heavy oil, oil sands or oil shale. Their development represents a significant addition to energy supplies and hence enhances energy security. This is provided new technologies to produce them prove commercially

viable, environmental impacts are managed and governments create a positive climate for investment to access more difficult resources and undertake long-term technology development.

3.11. Europe has significant volumes of unconventional hydrocarbon. In order to promote the use of this indigenous resource Shell would like to encourage the EU to look favourably on these new technologies such as in-situ conversion processes and similar experimental programmes which are important to establish whether a technology works.

3.12. The current debate around emergency or "strategic" gas stocks lacks definition. Before any decision on the requirement of emergency stocks is taken, criteria for their scope and use should be defined, ensuring that a level playing field is maintained. The assessment of disruption risk and the decisions on how to mitigate this should make use of all options and should be based on a regional (Europe wide) approach. This approach should take into account diversity of supply/supply routes, physical interconnectedness and existence of indigenous production. It should also be considered which form of energy offers the most economic "bridging" capabilities.

3.13. Shell has examined with interest the Commission initiatives in relation to the security of energy installations. In order for proposals to be effective, a thorough 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 a 'all hazards' approach which includes the impact of natural disasters. Confidentiality of information must be guaranteed at every step in the regulatory process and 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 assured and a list would constitute a security risk in itself.

4. Energy Mix

4.1. Diversity of energy supply is one of the cornerstones of security of supply, and is the proper response to risk and uncertainty. However, different energy sources and their secondary energy carriers have quite different properties and do not fit as well in all energy uses. For example, whereas solid fuels most efficient application is in stationary plants for power and heat generation, liquid fuels such as oil products best use is in the mobility sector propelling vehicles.

4.2. Nonetheless, for security of supply a diverse portfolio of energy carriers is just as important as diversity of energy sources and transport routes. As all energy carriers are equally important to secure supply, a level playing field between them must be ensured. The ultimate driver for the energy mix should be the market.

4.3. It is important to recognise the production volume, reserves and value of the indigenous hydrocarbons in Europe. The Green Paper does not adequately address Europe's indigenous production, which currently meets about 40% of oil demand and some 55% of gas demand. Despite the maturity of the European producing basins, the potential for this most secure source of oil and gas is considerable. Favourable framework conditions such as stable, market-based regulatory regimes and appropriate, reliable fiscal regulations will support maximum recovery.

4.4. Technologies such as hydrogen and solar are unlikely to play a significant role in energy supply in the next two decades, but they may well be important for the long term. Given the length of their development periods and the lead times for technology innovation and turnover, it is important that work progresses in the short term.

4.5. Before a decision on a Strategic Energy Review (as stipulated in the Green Paper) is taken, it should be clear what such a report would entail and what kind of policy recommendation such a report would generate. Establishing the energy mix is the role of energy companies responding to market forces and policy/regulatory frameworks 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 uncertainty for vital investment.

5. Climate Change

5.1. Shell shares the widespread concern that the emission of greenhouse gases (GHG) from human activities is leading to changes in the global climate. We believe action is required now to lay the foundation for eventually stabilising greenhouse gas concentrations in the atmosphere in an equitable and an economically responsible way. It is time to pursue stable, market-based policies that help energy users and suppliers pursue innovative energy solutions, recognising that oil and gas will continue to provide an important share of the world's growing energy needs during this century. It is worth noting that climate change is a global challenge and Shell recognises the need for local, national, European and international action.

5.2. In order to attract investment in clean energy sources, including the cleaner use of fossil fuels, it is necessary that authorities apply mechanisms to put a predictable cost on carbon (i.e. create a market based incentive). This should be promoted globally to not endanger the competitive position of a region.

5.3. Energy efficiency will mitigate carbon and is required across all sectors, whether power generation, the built environment or transport. Measures should be based on market incentives but would also include encouragement of more energy-efficient behaviours and regulation, where appropriate. The proposed "white certificates" system bears significant resemblance to an Emissions Trading Scheme (ETS) for energy efficiency. It is unclear what the impact of this would be on the competitiveness of European industry, we believe it requires further analysis before a conclusion is reached.

Emissions Trading

5.4. Shell supports emissions trading as a market-based instrument to lower the cost of the 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 CO2 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.

5.5. Gas is the least carbon intensive of the fossil fuels. It has other environmental advantages including low nitrogen and sulphur components. It also has relatively high energy conversion efficiency. Gas can be obtained from a range of sources within the EU and internationally.

Carbon Capture and Storage

5.6. Shell supports and is involved in the development and deployment of carbon sequestration as a safe, reliable and ultimately cost-effective mechanism to reduce industrial CO_2 emissions. The technology required for geological sequestration is proven and in common use in the oil and gas industry for enhanced oil recovery. This fits with our business and builds on our strength in understanding subsurface structures and processes. Within Europe Shell, with our partner Statoil, is involved in a project seeking to capture CO_2 from a Norwegian power plant and providing long-term storage in oil fields offshore Norway. This provides near-zero emission electrical power and the benefit of extra oil production. In addition, Shell together with GeoForschungsZentrum Potsdam has started a CCS demonstration project in Germany. We believe that a policy framework that does not distort markets and gives companies the confidence to make long-term investments is essential for encouraging the commercial deployment of CO_2 sequestration.

Biomass

5.7. We agree with the Commission that biomass is a limited resource for which there are competing demands, particularly for food crops. Therefore, the EU should make best use of the remaining crops to contribute to the 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.

5.8. 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 by the Commission, the EU cannot produce enough conventional biofuels to meet current indicative targets of the Biofuels Directive. Therefore imported biofuels have a key role to play in the EU biofuel market.

5.9. 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 being piloted for their commercial viability at the present time. "Advanced" biofuels (i.e. 2nd generation and beyond) offer the opportunity for a technology and biofuel neutral approach. It is for this reason that EU policy should not be directed at creating a market for today's (1st generation) biofuels, since this may discourage and delay the development of more advanced biofuels which hold far greater environmental and economic benefit potential.

5.10. Future biofuel technologies will be based on dedicated energy crops and residue, including municipal solid waste. 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.

5.11. Clean coal technology is going to be vital as due to large indigenous coal reserves in some member countries it is likely to feature in many countries energy mix. Technologies such as IGCC need to be deployed in order to improve the conversion efficiency of coal and also to minimise other environmental impacts. However, clean coal technologies can be more capital intensive. Market-based incentives are needed to ensure that clean coal will be commercially deployed.

6. A European Technology Plan

6.1. Technology is capable of delivering solutions in all the areas covered by the Green Paper and for the benefit of society-at-large. 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. Europe is one of Shell's core areas for research, innovations and solution development.

6.2. Technology remains the most reliable and promising tool to address global environmental concerns without affecting the standard of living of society at large. Shell 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.

6.3. Industry is already committed to some "energy technology platforms". These could benefit from enhanced project management. Creating international connections on science and technology is going to be crucially important. Preferentially forming partnerships internationally could be of benefit to EU and industry alike.

6.4. Market mechanisms, based on level playing fields and with externalities priced in are the best means of finding the right technology solutions and having them deployed as efficiently as possible. Strong preference should be given to deploying market-based mechanisms wherever possible. This should be the case throughout the value chain from the production of primary energy, to energy conversion, to carbon mitigation, to storage and resilience and to energy efficiency. However, there is also a case for direct support for new and emerging technologies needing to be developed and deployed against relatively tight timeframes. This is a feature of meeting the challenge of climate change. Examples are in offshore wind and CCS. This should enable them to be available to join the market within required timescales

6.5. Shell believes that both incremental and disruptive technological improvements in mobility fuels will help address the challenge of providing sustainable, competitive and secure energy. Shell will continue to work at both the national government and EU levels to ensure that there is appropriate legislation to introduce cost-effective cleaner vehicles and fuels. We are collaborating with the auto industry to make sure that our advanced fuels support the technical developments that are crucial for sustainable mobility.

Biofuels

6.6. Biofuels, Gas to Liquids (GtL) and CNG are important option in a future fuels strategy for a more sustainable mobility. As a natural gas derived fuel, GtL alone can make a significant contribution towards delivering the EU's 2020 transport fuels vision that includes the use of 10% natural gas based fuels. In addition, Shell is working with automotive manufactures in the "Alliance for Synthetic Fuels in Europe" (ASFE) which is promoting the use of synthetic fuels (GtL/BtL) in Europe. Synthetic fuels can cost effectively contribute to diversify of supply, reduce dependence on petroleum, extend limited diesel supplies in Europe and lower tailpipe emissions. GTL is already available for use in existing diesel engines, either as blends or neat, with no negative impact on life cycle CO2 emissions. Once commercially available, BTL can reduce CO2 production by up to 90%. However, the technology to support and implement these new fuel technologies is still in its relative infancy. As with any new technology, research costs are high and products remain uncompetitive against established, optimised retail fuels. Shell believes the Green Paper should promote stable, market-based mechanisms to encourage long-term investment and that policy support should clearly be linked to proven CO_2 well-to-wheel performance.

6.7. Greater attention needs to be paid to the sustainable development of bio-fuels, including the feedstock and the agricultural processes to deliver the feedstock. Whilst the goal of reducing CO2 emissions is laudable, the risks presented by increased agricultural production (including issues associated with fertiliser use, soil depletion, soil and water contamination, water depletion, bio-diversity and genetic modification of crops), and the full implications (in both Europe and beyond) of increased competition with the food chain, need to be better understood and managed. There is a substantial risk that addressing one environmental issue (CO2) can create another.

7. External Energy Policy

7.1. Hydrocarbons will continue to play a major role within the European energy mix and Europe will continue to be dependent on imports. Shell believes a coherent external energy policy is highly important to Europe's future energy supply and can help improve Europe's access to global hydrocarbon resources.

7.2. Shell recognises that there is a growing need for governmental co-operation at the EU level as markets become more integrated. Shell welcomes proposals to improve external relations with major energy producing and consuming countries based on fair reciprocity, thus giving EU energy companies fair access to upstream resources as much as non-EU companies access to the EU downstream opportunities. Shell believes this is an area of opportunity for the EU and we are ready to support the Commission with this objective.

7.3. Over the years the energy industry has increased the availability of oil and gas resources both in Europe and in non-EU exporting countries. The industry has achieved this by developing new technology to identify new reserves of oil and gas, increasing exploration success, by adding new discoveries in existing and previously inaccessible provinces, and by reducing costs and improving the recovery of known oil and gas resources.

7.4. Investment security and access to resources are major challenges for Shell just as it is for the rest of the industry, both inside and outside Europe. The political as well as the regulatory framework in all areas of the business must be balanced and adequate.

7.5. Projects for the upgrading and construction of new infrastructure should be based on market signals and supported by private investors. The EU and Member States involved should provide the concrete political and regulatory framework needed to support the undertaking of such projects by business. This could require careful and appropriate application of competition rules and regulatory provisions in order to promote investments and to maintain Europe's attractiveness as an importing destination. Regulatory provisions should be adjusted to promote investments, not to hinder them.

7.6. Shell strongly supports the promotion of non-discriminatory energy transit and the development of a more secure investment climate, provisions for market opening, regulatory convergence.

Conclusion

Shell believes the Green Paper is a step in the right direction. The EU can add most value to energy policy on two levels: implementing the internal market and using its collective strength to build strong relationships with non-EU producer countries.

The challenges of energy efficiency, security of supply and sustainability are interdependent and require a market orientated approach aimed at increasing energy supply, improving energy efficiency and conservation.

The further development and strengthening of dialogue with energy producer, transit and consuming countries is vital to long-term European energy security. This dialogue should be based on fair reciprocity.

In order to attract investment it is essential for countries to have open and favourable investment regimes, including stable and predictable regulations, clear tax laws and efficient administrative procedures.

If you have any questions or require any further information, please contact:

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AMCHAM EU
AMERICAN CHAMBER OF COMMERCE
TO THE EUROPEAN UNION

DG TREN	CODE:
A/ 33375	
ACTION:	ECHEANCE:
28. 09. 2006	

R	A	B	C	D	E	F
G	H	I	J	CP1	CP2	CP3
DG	ABS	01				AAE
			DGA	DGA	DGA	
			ED	EFG	HI	

EUROPEAN COMMISSION
rue de la Loi 200
1049 Brussels
BELGIUM

September 20th 2006

Dear Mr.

Re: Position Paper on the response to the Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy.

On behalf of the American Chamber of Commerce to the European Union (AmCham EU), please find enclosed a comprehensive document incorporating AmCham EU's response to the European Commission's Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy.

AmCham EU is keen to contribute to a constructive dialogue on this important issue, and we would be pleased to provide additional comments should you require any clarification or further information.

Yours sincerely,

Chair
The American Chamber of Commerce to the European Union

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AMCHAM EU
AMERICAN CHAMBER OF COMMERCE
TO THE EUROPEAN UNION

Position Statement

September 20th 2006

Position Paper on the response to the Green Paper: a European Strategy for Sustainable, Competitive and Secure Energy

The American Chamber of Commerce to the European Union (AmCham EU) is the voice of companies of American parentage committed to Europe towards the institutions and governments of the European Union. All AmCham EU's member companies have a keen interest in EU energy policy, as it is the lifeblood of Europe's economic activity. Given its strategic importance, future energy supply is a key preoccupation for the EU's political leadership and we applaud the Commission's commitment to formulate policy options that will contribute to the sustainable and competitively-priced energy supply needed to meet Europe's demand in the coming decades.

We welcome the opportunity to express our views on the policy orientations outlined in the Green Paper during this Green Paper consultation process. Our comments below respond to the six priority areas addressed by the Commission. We are committed to participating in the energy policy debate as the Strategic Energy Review takes shape.

1. Competitiveness and Internal Market

AmCham EU member companies are strong supporters of the new energy strategy for Europe articulated in the Green Paper. It particularly welcomes the objectives of completing the internal energy market and ensuring secure and competitive energy supplies. In this respect, it is absolutely essential that the Commission recognize the importance of the internal energy market for promoting the competitiveness of EU industry, thereby contributing to growth and jobs. Securing energy supply at competitive prices is therefore crucial.

Gas Market

a) Support for a single gas market

AmCham EU fully supports the completion of a truly competitive single European gas market with efficient pricing, conducive to the security of supply and competitiveness. Gas prices are expected to remain cyclical as are the prices of other energy commodities. Furthermore, gas sold in Europe will continue to be linked to the price of other energy carriers in the global market and will increasingly reflect prices of gas in other regions of the world.

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The EU gas market continues to expand and demand for gas is projected to grow. This will require a multiplication of gas transport routes, and subsequently lead to further integration of European gas networks. While important, indigenous European resources will require further development and expansion into more geographically and technologically challenging frontier areas. All of this will require considerable investment.

AmCham EU agrees with the Commission's view that investments, both for electricity and gas, require properly functioning markets, access to finance and a stable regulatory and fiscal environment.

b) Competitive, single market requires full implementation of existing legislation

While recognising that differences in implementation of the Gas Directive exist at Member State level, AmCham EU believes that existing legislation should be given the time necessary to achieve its intended results, i.e. closing the gap between the "letter" and the "spirit" of legislation. In general, legislative changes should only be developed after regulatory and market failures have been identified and that there is a solid understanding of the consequences new legislation might bring.

AmCham EU believes that full implementation and application of the Gas Directive will foster market opening. To this effect, we support a two-step approach in which the Commission first reviews the powers and independence of national regulators and, in a second phase, examines improved cooperation among national regulators.

AmCham EU is of the opinion that changing conditions within and outside the EU require continuous political attention. Such attention should not jeopardize confidence in regulatory stability or predictability, allowing for long-term planning of infrastructure and supplies.

Fundamentally, substantial capital commitments and long-term investments in the gas industry require long-term contracts to secure production investments, reserve corresponding transportation capacities and address the requirements of financial institutions. Financial institutions predict that long-term contracts will continue to be necessary in the future to secure the financing for a number of gas development, storage and pipeline projects. Taking Europe's increasing import dependence into account, AmCham EU believes that a major part of gas supplies for Europe will continue to be based on long-term contracts.

Apart from supporting security of supply, the option to enter into long-term contracts provides additional choice to buyers. In an effective market, buyers should have a range of supply options, be they long-term, short-term or spot purchases. By entering into a mix of commercial arrangements, buyers are able to set their own level of supply security.

Over the years, the gas industry has successfully contributed to growth and jobs in Europe. Its contribution to industrial competitiveness should continue as long as a well designed, stable and predictable regulatory framework is in place, allowing for both short and long-term contractual arrangements in which parties are free to negotiate the terms that best suit their economic needs. In contrast, overregulation imposing constraints on commercial activity will have a detrimental effect on competitive pricing and, consequently, security of supply.

Electricity Market

a) The electricity market is not functioning

As correctly identified by DG Competition's Energy Inquiry, there are currently no electricity markets functioning optimally in the EU. Indeed, in recent years, electricity prices have risen significantly, above pre-liberalization levels, and continue to increase. In Continental Europe, oil and gas costs are only minor sources for power and can be no justification for steep price increases. The main reason for the increases is that power markets within the Member States are highly concentrated, volatile, short-term and illiquid, and therefore prices are being imposed in a distorted manner. Generators link their prices to the cost of operating the marginal (highest cost) generators require to meet electricity demand in the system.

A further major cause for the current increase in power prices is the price of CO_2 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_2 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 electricity market it is no longer possible for customers to engage in true negotiations, nor to conclude long-term contracts as in other regions in the world. As a consequence, the international competitive position of many European electro-intensive industries has deteriorated sharply.

b) Solutions are urgently needed

In electro-intensive industries investment horizons are long, and therefore long-term power price security is a key requirement for viable operations. However, many industrial sectors cannot wait for new market regulations to take effect. Many long-term contracts are coming to an end and, if no action is taken, can only be replaced by current short-term contracts and prices. Because of the uncertainty in the current electricity market, the EU has become a high-risk area for new industrial investments in electro-intensive industries, while existing ones have begun to shut down production, increasing the EU's ongoing trend of de-industrialisation.

A few Member States, recently encouraged by the Commission's High–Level Group, have recognized that the energy market failure puts electro-intensive industrial consumers in Europe at risk and have started introducing 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 power-intensive industry in nuclear generation capacity and is inviting competitive tenders to apply for the operation of the plant. Finland has already embarked on the suitable solution offering affordable prices to electro-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 power-intensive industrial consumers.

c) A more consistent regulatory framework is 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, yet crucial for a stable long-term investment climate. For this to happen a number of measures have to be taken urgently at EU level:

- the DG Competition Energy Inquiry should correct anti-competitive behaviour, where identified, and should continue to closely monitor trade practices. The swift and forceful removal of all barriers to free competition in the power market should be a priority of the Green Paper's outcome;

- the implementation of the current Directives alone will not be sufficient to solve the current electricity market's problems. The European Commission should look at the dynamics of the current energy market and propose measures, including crucial recommendations to enable this market to work more efficiently, e.g. unbundling ownership of grid-operators from integrated power companies and

- more inter-connectors and infrastructure are needed, as well as better management of flows and connectors, and more interconnection outside the EU. More importantly, the effective separation between power generation and grid management, and between traders and producers are essential to start creating market competition in the energy sector, and allow newcomers to access this market. These elements should be the basis of the Commission's approach. 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 well- functioning markets and provide large industrial consumers with the possibility to choose their supplier in the future;

The above should generate an interaction of supply and demand fundamentals, as in established functioning commodity markets.

2. Security of supply and solidarity between Member States

Solidarity between Member States of the EU to manage a supply disruption, should it occur, and closer coordination between the EU-25 and the European Commission to avert any such disruption are listed amongst the key areas where action is most needed to meet the challenges identified in the Green Paper. AmCham EU applauds the Commission's concern to ensure that Europe's economic activity and consumers are sheltered from the adverse consequences of a potential interruption in energy supply. In order to address this concern, it is our understanding that the Commission proposes to review existing Community legislation on oil and gas stocks to adapt it to today's challenges. In addition, the Commission intends to observe the market more closely, in terms of the supply-demand balance, in order to identify potential shortfalls in supply and infrastructure at an early stage.

AmCham EU would like to offer the following comments with regards to oil and gas stocks, based on our understanding of the Commission's intentions in this area. We commend the Commission on its stated intention to secure the full backing of national governments for the measures it envisions on stock management and emergency response mechanisms. Experience from previous proposals in this area has demonstrated that, to avoid failure, EU-driven initiatives must be aligned with the Member States' vision of where added value can be achieved through central coordination of strategic measures and which aspects are better defined within national competence.

We understand the Commission's increased concern over the vulnerability of gas supply from the EU's key supplier in the wake of 2005 events, as a result of which some European countries saw their physical supply disrupted, albeit briefly, on account of a bilateral dispute, entirely beyond their control. The short-lived supply disruption has, among other factors, prompted the Commission to envision incremental storage for natural gas to protect the EU against the effects of a similar situation, were it to reoccur. It is our view that the Commission should build on Directive 2004/67, as a good basis for safeguarding natural gas supply, and monitor correct implementation of its provisions by all Member States. Proper enforcement of the legislation, coupled with an extension of current LNG infrastructure, should alleviate the need for additional strategic storage. Consideration of a European strategic gas reserve, representing one or two months of consumption as has been suggested, should be thoroughly assessed, and the economics of this proposal should be weighed against the likelihood of having to resort to such reserves. The Commission's Green Paper correctly observes that a well-functioning and competitive internal energy market is an effective contributor to security of energy supply. We believe that the constitution of strategic gas stocks may be in opposition to the goal of creating a competitive internal market.

As regards oil stocks and emergency response, the Green Paper calls for a review of Community legislation in light of new global energy market challenges and advocates greater transparency. AmCham EU strongly supports the Commission's commitment to

align any action towards a more coordinated Community response to potential supply disruptions with the International Energy Agency's (IEA) global mechanism. The recognition that the IEA system has a proven track record of fulfilling its role effectively is also welcomed. We have taken note of the Commission's opinion that more frequency and clarity in Community oil stocks reporting would support the aim of a more closely coordinated Community action in the area of supply disruptions. Whilst we question the benefits of more frequent data publication - and in fact have concerns about potential adverse consequences for market stability - we agree that the Commission would benefit from having a solid database of information regarding supply-demand trends, hydrocarbon reserves, production patterns, existing infrastructure and planned investments. The Energy Market Observatory (EMOS) could therefore potentially be a useful tool for the Commission to observe short and long-term developments – to the extent that this does not impede market dynamics, or add burdensome requirements on market participants.

3. Efficiency and Diversity of the Energy Mix

AmCham EU welcomes the EU level initiatives towards a more sustainable, efficient and diverse energy mix. We believe that a strategic EU Energy Review should analyse all the advantages and drawbacks of different sources of energy, including nuclear, as it would be helpful for the Member States. The Review should indeed focus on the knock on effects essentially national decisions have on the EU as a whole, as Europe is suffering from a very fragmented energy market.

An overall strategic objective on energy mix, which would originate from secure and low carbon energy sources, should not be drawn up at the detriment of a policy based on market economics. Ultimately, the best guarantee of supply security is establishing an effective market framework providing open competition, market pricing and adequate investment incentives for attracting diverse supplies.

Essential to this energy market framework is a stable and predictable fiscal, regulatory and legal system. This is true for the conventional sources of energy, which today represent the lion's share of the energy mix, as well as for all alternative sources of energy. Given the enormous investments involved, potential investors need to be confident in the sanctity of their contracts, the recognition of intellectual property rights and support for the rule of law.

The future energy policy must recognise the importance of oil and gas, as they will remain the primary energy sources for at least the next two decades, providing approximately 60% of Europe's energy requirements by 2030. It will be key to use oil and gas efficiently, thereby extending the life of these energy resources, while also reducing costs.

The EU must also provide the correct framework in which alternative supply sources, both in terms of fuel type and geography, are able to compete on a level playing field. Governments have a vital role to play in providing access to acreage, opening markets, reducing barriers to trade.

AmCham EU agrees that it is vital to stimulate research and development to create innovative, affordable, lower GHG technologies applicable for deployment on a broad scale. In this regard, it is important to encourage more rapid penetration of existing efficient technologies, as well as stimulating research on longer term solutions, thereby avoiding picking winners and losers prematurely.

Finally, the European Commission can and should show a strong leadership role through the deployment of programmes within the frame of the Framework Programme 7 (FP7) 2007-2013.

4. Sustainable Development and Tackling Climate Change

AmCham EU agrees with the European Commission on the importance of adopting effective policies to tackle climate change, thus reducing the impact economic growth may have on the environment. We completely support, in particular, the intention stated in the Green Paper to work towards the widest possible international action.

We firmly believe that in order for climate change policies to be successful, they need to involve all global players. As climate change is a global issue, regional policies can only have a very limited impact. Efforts should be intensified to ensure that greater cooperation is achieved with all of the most important greenhouse gas emitters.

Energy efficiency

AmCham EU fully supports the efforts undertaken by the European Commission to promote energy efficiency. We strongly believe that energy efficiency has a key role to play in reducing energy costs for all users, while at the same time bringing benefits to the environment.

All our members are energy users, and some also provide energy efficient technologies in a wide range of applications (from motor vehicles to buildings, from lighting to aircraft). We therefore have high expectations for the upcoming Energy Efficiency Action Plan. In particular, we believe that the following issues should be dealt with as a priority:

a) financing mechanisms. In most cases, there are already existing energy efficient technologies for various applications that could greatly reduce energy consumption while maintaining the same level of comfort for the final user. These technologies often cost a little bit more than "traditional" technologies, although the savings they generate over their life greatly compensate the extra cost paid upfront. AmCham EU believes that a proper strategy should provide appropriate financial instruments to encourage consumers to buy the energy efficient technologies which are already available;

b) information campaigns. We support the Commission's strategy of providing better information to all EU citizens on the performance of various energy using products. The role of the final user is key to reducing energy consumption: how a product is used is often more important than the energy specifications it meets and
c) international dimension. We support the Commission intention to negotiate an international agreement on energy efficiency. We strongly believe that, as the need to reduce energy consumption is global, the answer needs to be global. Also, it is important that if product related standards are adopted, these do not result in de facto barriers to non-EU products.

Renewable energy sources
AmCham EU endorses the European Commission's plan to propose a Renewable Energy Road Map, including targets to be reached beyond 2010. We believe that renewable energy sources (RES) have a key role to play in the energy mix of the future. However, it is important to recognize that oil, gas and coal will remain the primary sources of energy for many years to come. It is therefore key to strike the right balance between long term policies (aimed at promoting RES), and policies that can deliver results in the short and medium term.

We believe that one of the European Commission's most important tasks is to promote a coordinated approach among EU Member States in promoting RES, to ensure that there is a stable legislative framework applied in all countries, to guarantee an adequate level of support for those RES that are still highly dependent on financial aid.

Carbon capture and geological storage
We fully agree with the European Commission on the important role that carbon capture and geological storage can play in dramatically reducing emissions. This technology is becoming even more interesting now that we are facing an increased use of coal.

We believe that it is crucial for the EU to invest the appropriate R&D funds in ensuring that this technology becomes viable within a short period of time. However, we stress the importance of cooperating with other international partners to make sure that this effort is jointly undertaken, without unnecessary and costly duplications of work. In particular, we suggest that the European Commission include carbon capture and storage in its lists of items for EU-US cooperation.

5. Energy Technology and Innovation

AmCham EU completely agrees with the Commission's philosophy that the development of new energy technologies is critical to delivering security of Europe's energy supply. R&D has a key role to play in this field, and we are glad to see that the European Commission is proposing a sensible increase in the budget of FP7.

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We support the Commission's idea of a strategic energy technology plan, spanning across all energy intensive areas, from housing to transport. We enthusiastically support Commission actions to better coordinate the efforts undertaken at EU level with those undertaken at national levels, which sometimes are contrary or result in a duplication of efforts. Given the limited resources available for R&D, this is unacceptable.

We would stress though, that the same duplication should be avoided also at the international level, especially for fields of energy research that are still at a pre-competitive phase. We believe that by fostering cooperation in the field of energy R&D between the EU and the US, results could be achieved more quickly, and to ensure that important technologies are brought to the market at reasonable costs within the shortest delay. This could be true in particular for carbon capture and storage technologies, for instance.

Also, in order to allow a greater role for private financing, the rules for EU R&D should be streamlined and simplified, to attract more interest from the private sector.

6. A Coherent External Energy Policy

Given Europe's growing dependency on imported energy and the rapidly escalating global demand - in particular from the emerging economies - the importance of the external dimension of energy policy cannot be overstated. Europe faces strong competition from major consuming countries in other regions of the world and must nurture its relationships with its key suppliers. It should also engage in active energy diplomacy towards potential new energy partners, particularly looking to the diversification potential offered by LNG. AmCham EU therefore welcomes the joint paper adopted by the Commission and the Council's High Representative and the extensive discussion during the June 2006 European Council on the external element of Europe's energy policy. It is vital that Europe has a meaningful voice on the international scene in energy matters. A prerequisite for this would be for the EU to demonstrate leadership in its well-functioning and open domestic energy markets. Persisting obstacles to market liberalization and recent trends towards "economic protectionism" in some Member States will be detrimental to this effort.

The Commission's Green Paper recognizes that hydrocarbons will continue to represent a large share of the European energy mix in the years ahead. AmCham EU therefore agrees with the Commission that a coherent external energy policy constitutes an important factor in facilitating Europe's access to global hydrocarbon resources. A key element in developing partnerships with producer and transit countries is that both sides offer security and predictability, as well as reciprocal access to each other's markets and infrastructure. As globalization continues to dissolve borders, the global energy picture is increasingly characterised by *interdependence.* Policy objectives and actions must be aligned with this new reality.

We note with interest the Green Paper's proposal to develop partnerships with major consumer countries, for example in the area of energy efficiency. Following this, the Commission recently announced the launch of a new series of negotiations around common use, on both sides of the Atlantic, of the "Energy Star" label, certifying the design and energy performance of office equipment. In its response to the Green Paper on Energy Efficiency, AmCham EU underscored the benefits of international cooperation in this area and outreach to other major energy consuming third countries is to be encouraged.

* * *

The American Chamber of Commerce to the European Union (AmCham EU) is the voice of companies of American parentage committed to Europe towards the institutions and governments of the European Union. It aims to ensure a growth oriented business and investment climate in Europe. AmCham EU facilitates the resolution of EU – US issues that impact business and plays a role in creating better understanding of EU and US positions on business matters. Total US investment in Europe amounts to $964 billion, and currently supports over 3.6 million jobs.

* * *

From:
Sent: mercredi 13 septembre 2006 15:48
To: TREN MAIL
Cc:
Subject: FW: MAVIR's remarks on the Green Paper

Attachments:

Piebalgs_level.pdf
(362 KB)

DG TREN	CODE:					
AV	32036					
ACTION:		ECHEANCE:				
		14. 09. 2006				
R	A	B	C		E	F
G	H	I	J	CP1	CP2	CP3
PG	AG	01				AAE
			DGA	DGA	DGA	
			CD	EFG	HI	

-----Original Message-----
From: [mailto: .vir.hu]
Sent: Wednesday, September 13, 2006 3:36 PM
To:
Cc:
Subject: MAVIR's remarks on the Green Paper

Dear Mr. Piebalgs,

Attached please find an electronic copy of the letter of Dr. TOMBOR Antal, CEO of MAVIR Hungarian Transmission System Operator Company Ltd. sending MAVIR's remarks on the Green Paper "A European Strategy for Sustainable, Competitive and Secure Energy".

The original letter is sent to you by post today.

Yours sincerely,

Head of Intersystem Co-operation Dept.
MAVIR ZRt.
phone: +36 1 225 5705
fax: +36 1 225 5718
e-mail: mavir.hu

(See attached file: P

MAVIR
MAGYAR VILLAMOSENERGIA-IPARI ÁTVITELI RENDSZERIRÁNYÍTÓ
ZÁRTKÖRŰEN MŰKÖDŐ RÉSZVÉNYTÁRSASÁG

Vezérigazgató

MAVIR-EV-LEV-0673-00-2006-09-13

European Commission
B – 1049 Brussels

Copy to:

European Commission
B – 1049 Brussels

European Commission
B – 1049 Brussels

Budapest, 12 September 2006

Dear Mr. Piebalgs,

Referring to your kind invitation to take part in the discussion of the *Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy* we would like to express the view and opinion of the Hungarian Transmission System Operator (MAVIR) in some issues of this highly appreciated document. Our aim is likely as yours to secure the stable energy supply while giving consumers a chance to buy electricity at affordable price.

MAVIR, as the Hungarian TSO and member of UCTE and ETSO, highly appreciates that the European Commission is well aware of the main challenges facing the European power industry, and we fully support the need to develop a new, common European strategy for energy.

That is why we have carefully studied the Green Paper and prepared remarks to the issues most important for us, as a TSO which because of the geographical situation is very affected and interested in the good solution of the common European energy questions.

We are hoping our attached opinion and proposals useful for working out the Strategic EU Energy Review and to achieve our common goals. We highly appreciate if you can take into consideration our remarks during the process of finalization of the document.

Yours sincerely,

CEO

Enclosure: MAVIR's remarks on the Green Paper

1014 Budapest, Petermann bíró u. 5-7. Levélcím 1255 Budapest, Pf. 158.
Tel.: (06 1) 202 0725 Fax: (06 1) 202 1043 www.mavir.hu
Cégjegyzékszám: 01-10-044470 (Fővárosi Bíróság mint cégbíróság)

12 September 2006

MAVIR's remarks on the Green Paper
(A European Strategy for Sustainable, Competitive and Secure Energy)

MAVIR, as the Hungarian Transmission System Operator and member of UCTE and ETSO, would like to support and supplement the opinion of UCTE and ETSO on the Green Paper.

ad Point 1. „AN ENERGY STRATEGY FOR EUROPE: BALANCING SUSTAINABLE DEVELOPMENT, COMPETITIVENESS AND SECURITY OF SUPPLY":

MAVIR highly appreciates that the European Commission is well aware of the main challenges facing the European power industry (need for investment, import dependency, concentrated reserves, increasing demand, rising prices, climate change), and we fully agree with the aim that the sustainable development, competitiveness and security of supply shall be properly balanced.

Taking into consideration that the national markets are highly interdependent and that the ultimate aim is to create a fully functioning European internal market, we fully support the need to develop a new, common European strategy for energy.

ad Point 2.1. „Energy for growth and jobs in Europe: completing the internal European electricity and gas markets":

The second paragraph states: „.... *whilst much has been done to create a competitive market, work is not yet complete. Many markets remain largely national, and dominated by a few companies.*" Seeing the recent merger developments and the future acquisition plans of the few, strong companies, we are afraid that the dominant position of a few companies will remain in the long run. In addition, there is a real danger that these few companies will divide the market (not only the national but regional markets as well) among them, weakening the competition and dictating prices. In this way the previous state-owned national monopolies would be replaced by much stronger international private monopolies.

ad Point 2.1.(i) „A European grid":

The first paragraph states: „*Consumers need a single European grid for a real European electricity ... market to develop. This can be done by ensuring common rules and standards on issues that affect cross-border*

trade." The previous investigations (e.g. Italian blackout[1]) revealed that the present power systems are not yet suitable for long-distance and bulk power transfers. Therefore, development of a single European grid for a real European electricity market can not be achieved only by proper organisational and legal measures (i.e. common rules and standards), but we must not forget that it needs a lot of investments.

Under the present regulatory regimes in most countries of Europe, the costs of investments in transmission infrastructure in transiting countries are born by the end-users of these countries (i.e. without having benefit from the transit). The Inter-TSO Compensation System does not cover the investment costs for transit in transiting countries. Concerning overall cost, long-distance transiting electricity can be more expensive than installing new generation capacities close to consumption areas. That is why the generators should be made interested in building generation capacities near to consumption areas (proper allocation signals). The costs of investments and operation of infrastructure necessary for the electricity transmission should be covered by the transmission fee. A study could be worth to tackle this question.

Taking into consideration that the power systems on the European continent (UCTE systems) are highly meshed, every measure in a national system affects cross-border flows and trade in others. For example, a small system has very limited possibilities to keep under control heavy transit flows (i.e. overcome overloads) coming from far beyond the neighbouring systems and going to far over the neighbouring systems. In addition, the technical and market issues are interdependent and can not be dealt separately. Therefore, for further and quicker progress, we agree that a closer level of collaboration is needed between national regulators and national grid operators, with appropriate powers for common rules and approaches.

First steps can be taken on regional basis, but a measure taken to solve a problem in one of the regions can cause new problems in the neighbouring regions. Therefore we stress that simultaneously it is also necessary to organize an inter-regional co-ordination and collaboration, in order to control the region-to-region interactions. We propose to evaluate the opportunity of a service provider to guarantee the region-to region co-ordination. We think this synchronous system level service provider necessary to ensure the secure and coordinated operation of the market and the transmission grid.

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[1] UCTE Final Report of the Investigation Committee on the 28 September 2003 Blackout in Italy: *„It must be emphasised that the original function of the interconnected systems is to form a backbone for the security of supply. To this aim the system has been developed in the past 50 years with a view to assure mutual assistance between national subsystems. This includes common use of reserve capacities and, to some extent, optimising the use of energy resources by allowing exchanges between these systems. Today's market development with its high level of cross-border exchanges was out of the scope of the original system design."*

ad Point 2.1.(ii) „A priority interconnection plan":

This point recalls the 10% minimum interconnection level between Member States, set by the Barcelona Summit, necessary for the truly competitive and single European electricity market. In this respect we would like to note that in spite of this value for some countries (e.g. Hungary) is much higher than 10%, still there may be serious impediments to the true market. Congestions may occur not only on interconnections but within the national system, therefore to facilitate international market, not only new interconnections but new internal transmission lines may be necessary. In the present legal and regulatory systems, the financial viability of internal system developments for the purpose of facilitating international transits, without fairly co-benefiting for the investing system operator, is questionable (see our comment ad Point 2.1.(i)).

For the „energy island" countries (e.g. Ireland, Malta, Baltic States) the benefits of integration (through AC or DC interconnections) should be compared with the costs to be paid finally by the end-users.

The first paragraph states: „*In many Member States, action needs to be taken to free up capacity reserved for former incumbents under electricity ... long term contracts. Interconnection is a crucial mechanism for solidarity.*" Our opinion is that long term cross-border contracts help the system security. This is the only way to ensure long term power reserves through the cross-border lines. If the guaranteed long term access to the power plants of other countries is not possible, then all reserves must be ensured internally (in a more expensive way), i.e. all systems have to be self-sufficient – which is against solidarity and market.
As it was proved also in the past, interconnection has been crucial for solidarity, but the Transmission Reliability Margin (TRM) must not be sacrificed for the benefit of the available capacity for the market.

We fully agree with the need to stimulate investments in infrastructure and accelerate authorisation procedures.

We agree that relations with Switzerland – as non-EU country but major transit country for electricity – are important, however, for the same reason we should not forget Croatia. This country is a significant transit route between two EU countries (Hungary, Slovenia) and without its involvement in legal and regulatory harmonisation work the market is distorted and the system security is endangered.

ad Point 2.1.(iii) „Investment in generation capacity":

We fully agree that for timely and sustainable investments in generation capacity, price signals, incentives, regulatory stability and access to finance are needed. We are concerned that in present practice it seems that the required stable environment is not yet established, however at the

same time, we see the need for new generation capacity in Europe. This issue is rather urgent, taking into consideration that building power plants takes very long time. In addition, generation capacity investments may also require considerable and time consuming network investments.

We agree and would like to emphasize that significant amount of reserve capacity is needed as back-up for intermittent renewable (wind) energy sources.

Concerning the issue of long term contracts for generation, there are two contradictory effects to be balanced: the long term contracts work against the elasticity of the market, on the other hand long term contracts stipulate – even smaller – stakeholders to build new generation. From the point of view of system security, this latter effect is very important.

rd Point 2.2 (i) „Enhancing security of supply in the internal market"

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EUROPEAN HYDROGEN ASSOCIATION

EHA contribution to the online Consultation on The Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy

(*Draft*)

The Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy is a consultation document designed to stimulate ideas on what should be done to deal with practical challenges and problems. One of the biggest challenges is how to ensure that Europe will be able to enjoy reliable, affordable and adequate energy supplies in the future, while minimizing environmental impacts which come from some energy production and use. On the basis of the response to this Green Paper, the Commission would like to develop more concrete ideas on a number of energy issues.

The consultation period will end on **24 September 2006**. The results of the consultation will be published on the Green Paper website.

IDENTIFICATION

This consultation is subject to Personal Data Protection rules. A Privacy Statement specifies how your data will be used.

Your profile (compulsory)
X I'm an organisation/stakeholder

Name (optional)
European Hydrogen Association

Nationality (compulsory)
Belgium
Age (optional)

E-mail (optional)

Organisation name (optional)
European Hydrogen Association

Contact name (optional)

E-mail (optional)
.euro.org

Type of organisation (compulsory)
Not for profit association

European Hydrogen Association
Gulledelle 98 - B 1200 Brussels - Belgium
tel. +32 2 7759077 - fax. +32 2 7725044 - www.h2euro.org - info@h2euro.org

Energy activitiy (compulsory)
Energy production, Transport, Industry, Energy policy and Research

In wich country/countries is your business or organisation based ? (compulsory)
Belgium

QUESTIONS:

A. Competitiveness and the internal energy market

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

Reinfoced separation of network operation from production and supply (unbundling)

Reinforced powers and independence of national regulatory authorities

X Harmonised grid access conditions (European Grid code)

Create a European Energy Regulator

Create a body of transmission system operators at EU level

X OTHER: Create level playing field for the connection and installation of new energy technologies as hydrogen and fuel cell applications in all EU Member States.

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

X Security rules

X Balancing rules

X Capacity allocation rules (congestion management)

X Transparency rules

X OTHER: Hydrogen produced by excess electricity used as an electricity storage solution could connect excess renewable energy to clean urban transport applications or could be used to power fuel cells for back up power. Therefore a European Grid Code should contain references to the use of innovative electricity storage. as hydrogen, to balance the grid.

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

X Accelerate authorisation procedures in the Member States

X Promote more cooperation between Member States

X Increasing transparency in the market

X Increase the share of EU financial support

X OTHER : Widespread information campaign that includes references to cost and "well-to-application" impact, long term strategy and consequences for households and industry.

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

X Establish integrated and competitive electricity and gas markets

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X Focus on cost effective savings of energy

X Diversify the energy mix

X Use more renewable energies

X Promote efficient energy services

X Decrease dependency on imported fuels

X OTHER:
1. Support widespread local information campaigns of technical and economic aspects of clean energy technologies;
2 Support regional and local governments to create dedicated departments to develop effective strategies for the use of clean energy and transport applications.

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

By ensuring low energy prices and thus increasing the competitiveness of our industry

Through the implementation of the Trans-European Energy Networks

X By attracting investments in the energy sector

X OTHER: By actively stimulating the deployment of innovative energy and transport solutions like hydrogen and fuel cell systems.

Any other comments on the chapter "Competitiveness and the internal energy market"? (optional)

B. Solidarity

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

X Protect energy infrastructure against natural catastrophes and terrorism

X Develop smart electricity networks, demand management and distributed energy generation, bearing in mind their potential to help at times of sudden shortage

X Cooperate on network security among transmission system operators, including the development of common security and reliability standards

X Establish an observatory mechanism to identify likely shortfalls in supply and infrastructure at an early stage

Review existing Community legislation on oil stocks

Introduce EU legislation on gas stocks to ensure solidarity among Member States in the event of a shorter-term emergency gas supply disruption

X Enhance dialogue with major energy suppliers/consumers

X OTHER: Support the development of instruments that assist local governments to identify local sustainable energy mix for stationary and transport applications and the use of innovative energy technologies to stimulate local economy; hydrogen as an energy vector for example could bridge the use of conventional fuels to increased use of sustainable energy applications using existing local expertise to facilitate this transition on a local level.

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

A solidarity mechanism to assist a Member State facing difficulties following disruptions of its energy supplies under emergency circumstances

A coordinated EU response in the event of an International Energy Agency decision to release emergency oil stocks

X A coordinated mechanism for emergency demand restraint

X A coordinated mechanism to provide early notice and monitoring and to enhance response capabilities

X OTHER:
1.. Support of development of innovative electricity storage solutions for emergency situations by using excess production of electricity: hydrogen can be produced through the electrolysis of water using excess electricity. The hydrogen could be used to power emergency vehicles and other critical transport operations.
2. Rapid deployment of proven new energy technologies for critical applications; fuel cells as back up power systems;

Any other comments on the chapter "Solidarity"? (optional)

C. Diversification of the energy mix

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

X Use more indigenous energy sources

X Use more renewable energy sources

Use more nuclear energy

X Be leader in energy efficiency

X OTHER:
1. Support reinforcement of dedicated personnel at regional and local government level to assess and promote the use of local, sustainable energy solutions including hydrogen and fuel cells;
2. Actively stimulate sustainable energy education including innovative energy technologies in schools and universities;
3. Support large projects that include innovative technologies as hydrogen ad fuel cells to create energy mix models to be used at national and local level.

Any other comments on the chapter "Diversification of the energy mix"? (optional)

D. Sustainable development

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

X Focus on getting the widest possible international actions on climate

X Keep Europe at the forefront of energy technology and the policies needed to encourage change

X Consolidate Europe's position at the forefront of progress on efficiency and renewables

X Consolidate the Emissions Trading Scheme

X Do cost-benefit analyses of all new proposals

OTHER: Cost benefit analysis that include the use of technologies as hydrogen and fuel cells should be the basis of EU and national strategy.

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

X Reinforce Member State investments

X Introduce incentives at Community level

X Define long term targets and an action plan to promote renewable energy

X Further develop the EU Emissions Trading Scheme

X Increase R&D efforts within a Strategic European Energy Technology Plan

X OTHER: Execute independent confrontation of the technical and economic aspects of different clean energy and transport solutions; hydrogen as an electricity storage medium could accelerate the transition to a clean and secure energy future by linking excess conventionally produced electricity to clean urban transport.
- co-modality, i.e. the efficient use of different modes on their own and in combination, will result in an optimal and sustainable utilisation of resources. This approach is fully in line with the conclusions of the European Council of 16/06/2006 and the renewed Sustainable Development strategy, in particular its chapter on transport. .

Any other comments on the chapter "Sustainable development"? (optional)

E. Innovation and technology

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

X Build upon the proposed European Institute of Technology

X Establish a Strategic European Energy Technology Plan

X Consider ways to finance a more strategic approach to energy research and innovation programmes and budget

X Mobilise high-level stakeholders and decision-makers to develop an EU vision for the transformation of the energy system

X Develop leading markets for innovation

X OTHER:
1. Support active deployment of proven new energy technology as hydrogen for transport and back up power applications;
2. Develop instruments that facilitate educated choices of clean energy and transport solutions at a local level involving local industry.

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

X CO_2 Capture and Sequestration (CCS)	Enhanced Oil Recovery	X Clean Coal (non-CCS)
Disposal of nuclear waste	X Second generation biomass	Tidal and wave
X Solar	X Wind	X Fuel cells & hydrogen

X Smart electricity networks	OTHER: A comprehensive European Energy Technology Strategy should include a regular independent study of the optimal energy mix of different energy and transport solutions for different national and local situations.

Any other comments on the chapter "Innovation and technology"? (optional)
Introduce the principal of co-modality as mentioned in the Mid-term review of the European Commission's 2001 Transport White Paper for different types of clean energy systems, i.e. the efficient use of different clean energy technologies for transport and stationary applications on their own and in combination, that will result in an optimal and sustainable utilisation of resources. This approach is fully in line with the conclusions of the European Council of 16/06/2006 and the renewed Sustainable Development strategy, in particular its chapter on transport and it matches the suggestions in the Review of the White Paper.

F. External policy

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

X Develop new partnerships with neighbouring countries of the EU

X Develop new partnership with Russia

X Develop new parternships with important producer countries

X Develop new parternships with main consumer nations of the world

X Incorporate climate change, energy efficiency and renewable energy sources into EU external relations

X OTHER: Stimulate extensive collaboration on the deployment of new energy technologies as hydrogen and fuel cells as these technologies do not carry the political burden of agreements on conventional energy and transport applications. The shift to clean energy systems in which the use of hydrogen will play an integral part could accelerate the uptake of an European Energy Strategy based on common goals with regards to security, competitiveness and environment

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

By building new LNG terminals

By building new pipelines to producer countries in the Middle East and Central Asia

By building new pipelines to producer countries in (North) Africa

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

X OTHER: By actively promoting the use of efficient gas consuming power systems as fuel cells.

Any other comments on the chapter "External policy"? (optional)

G. European energy policy

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

X Yes No Don't know

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

X Sustainability	X Competitiveness	X Security of supply	X OTHER: Creation of a level playing field for all innovative and sustainable energy and transport applications

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

X Sustainability	X Competitiveness	X Security of supply	OTHER

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

X Yes No Don't know

Any other comments on the chapter "European energy policy"? (optional)

The European Hydrogen Association, EHA, welcomes the Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy as an important document to stimulate sustainable energy choices on EU, national and local level. Hydrogen, as a new energy vector that can be produced by different conventional and renewable energy sources and that can be used to link excess renewable energy to local clean transport solutions, will contribute significantly to the principles of the EU energy policy as outlined in the Green Paper. In order to achieve its potential Hydrogen and Fuel Cell Technologies need to become a visible an active part of all EU's Energy policy actions.

The Hydrogen ad Fuel Cell community, including associations as the EHA, over the last three years has put together its commitment and expertise in the European Hydrogen and Fuel Cell Technology Platform to define the necessary research and deployment conditions to create a competitive and sustainable energy and transport infrastructure for the use of Hydrogen and Fuel Cells in Europe. The resulting "Strategic Document" of the HFP (www.hfpeurope.org) indicates that in order to achieve a European sustainable competitive and secure energy and transport system that includes the use of hydrogen, a strong policy framework is mandatory.

Current support for research and development of Hydrogen and Fuel Cell systems needs to be complemented with a visible presence of hydrogen and fuel cell technologies in the EU bodies and actions that will define the EU Energy policy in the coming years. Rapid commercialization of Hydrogen and Fuel Cell systems on a massive scale, as foreseen in the next 10 years, requires a proactive and concrete assessment of the role of Hydrogen and Fuel Cells in EU and national Energy policy. A technical and economical confrontation of all sustainable energy options, the principle of co-modality, including the use of Hydrogen and Fuel Cells, has to be made to identify the right energy mix for each EU Member State.

Therefore the EHA urges the Commission to include Hydrogen and Fuel Cell technologies in the proposed European Energy Supply Observatory, the Action Plan on Energy Efficiency, the Road Map for Renewable Energy, the Strategic Energy Technology Plan and in the common regulatory frame work and structures for the EU's internal gas and electricity

markets.
Without an active and visible contribution of Hydrogen and Fuel cell experts in EU Energy policy structures, Europe will loose its role of technological and market leader in important segments of the fast approaching Hydrogen and Fuel Cell market.

Thank you for your co-operation

How did you perceive this questionnaire? (compulsory)

X Expectations met Expectations not met X No opinion

European Hydrogen Association
Gulledelle 98 - B 1200 Brussels - Belgium
tel. +32 2 7759077 - fax. +32 2 7725044 - www.h2euro.org - info@h2euro.org

From:

Sent: mercredi 7 juin 2006 15:39

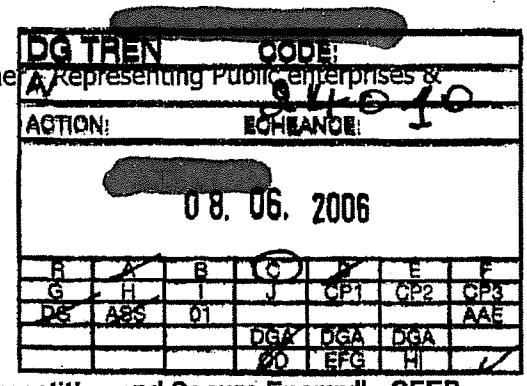
To: TREN MAIL

Cc:

Subject: FW: Energy Green Paper: Opinion of CEEP (EU Social Partner - Representing Public enterprises & General economic interest enterprises)

For registration Directorate C please
Thank you

-----Original Message-----
From: s [mailto: s@ceep.org]
Sent: Wednesday, June 07, 2006 2:55 PM
To:
Subject: Energy Green Paper: Opinion of CEEP (EU Social Partner - Representing Public enterprises & General economic interest enterprises)



For the attention of

Director
Directorate C - Conventional sources of energy

Re.: Green Paper "A European Strategy for Sustainable, Competitive and Secure Energy" - CEEP opinion

Dear Sir,

In view of the Council meeting tomorrow, 8 June, please find attached the opinion of CEEP regarding the above-mentioned paper.
We very much hope that you will be able to take it into account during your discussions tomorrow.

Thanking you in advance,

Yours sincerely,

Secretary General of CEEP

General Secretariat of the European Centre of enterprises with public participation and of enterprises of general economic interest (CEEP)
Tel: 02/229.21.47
Fax: 02/218.12.13
e-mail: s@ceep.org

CEEP XVIIth Congress and Discussion Days 2006 in Bucharest – NEW DATES! 7/09/06 (9:30) to 8/09/06 (16:30)
"Fostering Citizens' Confidence in an Enlarged Europe by Modernising Services of General Interest"

TREN)

From: EN) on behalf of

Sent: mercredi 7 juin 2006 15:39

To: TREN MAIL

Cc:

Subject: FW: Energy Green Paper: Opinion of CEEP (EU Social Partner - Representing Public enterprises & General economic interest enterprises)

-----Original Message-----
From: s@ceep.org]
Sent: Wednesday, June 07, 2006 3:06 PM
To:
Subject: Energy Green Paper: Opinion of CEEP (EU Social Partner - Representing Public enterprises & General economic interest enterprises)

For the attention of

Directeur général
DG Energy & Transport

Re.: Green Paper "A European Strategy for Sustainable, Competitive and Secure Energy" - CEEP opinion

Dear Sir,

In view of the Council meeting tomorrow, 8 June, please find attached the opinion of CEEP regarding the above-mentioned paper.
We very much hope that you will be able to take it into account during your discussions tomorrow.

Thanking you in advance,

Yours sincerely,

Secretary General of CEEP

General Secretariat of the European Centre of enterprises with public participation and of enterprises of general economic interest (CEEP)
Tel: 02/229.21.47
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e-mail: @ceep.org

CEEP XVIIth Congress and Discussion Days 2006 in Bucharest – NEW DATES! 7/09/06 (9:30) to 8/09/06 (16:30)
"Fostering Citizens' Confidence in an Enlarged Europe by Modernising Services of General Interest"

From:

Sent: mercredi 7 juin 2006 15:35

To: TREN MAIL

Subject: FW: Energy Green Paper: Opinion of CEEP (EU Social Partner - Representing Public enterprises & General economic interest enterprises)

-----Original Message-----
From: [illegible]ers@ceep.org]
Sent: Wednesday, June 07, 2006 2:41 PM
To: G[illegible]
Subject: Energy Green Paper: Opinion of CEEP (EU Social Partner - Representing Public enterprises & General economic interest enterprises)

For the attention of

Director
Directorate D - New and renewable sourses of energy, demand management and sustainable development
Energy & Transport DG
European Commission

Re.: Green Paper "A European Strategy for Sustainable, Competitive and Secure Energy" - CEEP opinion

Dear Sir,

In view of the Council meeting tomorrow, 8 June, please find attached the opinion of CEEP regarding the above-mentioned paper.
We very much hope that you will be able to take it into account during your discussions tomorrow.

Thanking you in advance,

Yours sincerely,

Secretary General of CEEP

General Secretariat of the European Centre of enterprises with public participation and of enterprises of general economic interest (CEEP)
Tel: 02/229.21.47
Fax: 02/218.12.13
e-mail: [illegible]eep.org

CEEP XVIIth Congress and Discussion Days 2006 in Bucharest – NEW DATES! 7/09/06 (9:30) to 8/09/06 (16:30)
"Fostering Citizens' Confidence in an Enlarged Europe by Modernising Services of General Interest"

CENTRE EUROPEEN DES ENTREPRISES
A PARTICIPATION PUBLIQUE
ET DES ENTREPRISES
D'INTERET ECONOMIQUE GENERAL

EUROPEAN CENTRE OF ENTERPRISES
WITH PUBLIC PARTICIPATION
AND OF ENTERPRISES
OF GENERAL ECONOMIC INTEREST

ENERGY Committee
CEEP.06/ENER.06-3
Orig. EN – 06/06/2006

CEEP POSITION PAPER
on the

GREEN PAPER
"A European Strategy for Sustainable, Competitive and Secure Energy"

CEEP welcomes the Green paper "A European Strategy for Sustainable, Competitive and Secure Energy" as the beginning of a process to develop a more integrated European energy policy, in line with the goals of securing supply, enhancing competitiveness and contributing sustainable development.

As a first step, the green paper – with a focus on electricity and gas - presents various elements of energy policy already in place and proposes new measures in some areas. There is a need for a more consistent approach. CEEP expects the regular "Strategic EU energy review", as proposed by the Commission, to carry on the process of developing such an integrated approach, taking into account all primary energy sources, all sectors of energy consumption, and all aspects of Energy policy, as well as their integration into related policy areas.

As regards the internal energy market, the recently opened infringement procedures show that the implementation of the relevant European regulation is incomplete in most of the Member States. CEEP believes that the full implementation of the existing European legislation and a thorough evaluation of its impact is a prerequisite for any new regulation on the European level.

Also, the creation of new European bodies should be carefully assessed. Any duplication with the work of already existing bodies (European or national) should be avoided.

In addition to these general comments, CEEP would like to highlight the following limited number of points which should be treated in the broader context of developing an Energy Policy for Europe.

Completing the internal European electricity and gas markets

At the current moment, the European regulatory framework has only recently been transposed in a number of member states, and it has not yet been successfully implemented everywhere. In line with the requirements of the directives, some important provisions are not yet effective, as for example the opening of the electricity market for household customers in all Member States.

In the on-going process of liberalisation, care must be taken not to alter the regulatory environment too rapidly, as investments in the energy sector, due to their size and the long pay-back periods, rely on a stable long-term framework. CEEP believes that the existing European framework will be sufficient to create a truly integrated European energy market. This framework should be quickly, fully and effectively implemented and given time to show its impact. Any consideration of further measures is – at this stage – premature.

A truly competitive single European electricity and gas market should offer a free, transparent choice for all consumers between competitive bidders, with social guarantees for vulnerable customers. In order to achieve this, it is necessary to maintain a diversified structure of market participants active on a local, regional and European scale.

In this regard, CEEP supports the currently existing positive discrimination. This exemption is of highest importance with regard to local energy companies (exemption from legal separation for distribution companies with fewer than 100,000 customers connected). These small and medium-sized enterprises also contribute to the diversity of participants on the market and thus to true competition for all customers.

A truly competitive single European electricity and gas market should also rely on market mechanisms as much as possible. The existence of regulated tariffs in some Member States is an obstacle to new entrants, and restricts the price signals given by the market, impeding investment into new generation and transport capacity. Therefore regulated tariffs, in particular for industrial customers, should be abolished as soon as possible.

Another distortion of the market is the current tax regime, which allows for taxes on energy to differ considerably between Member States. The creation of a real level-playing field in the energy markets would also require more harmonisation of energy taxes across the EU.

The question whether new bodies on the European level are needed should be carefully assessed. At the moment, existing bodies like ETSO, UCTE, or ERGEG, already provide for a sufficiently intensive and productive co-operation and co-ordination between the national participants, also on barriers affecting cross-border trade. The added value of new bodies, apart from potentially longer decision-making processes, is not evident. In a similar way, the added value of a European grid code is not evident.

Intermediate steps seem to offer the possibility of quick progress in certain areas. Thus, CEEP fully supports the concept of regional markets and the recent initiative of ERGEG to speed up the creation of such regional markets as an intermediary step towards a European integrated market.

To further integrate markets, there is a need for more interconnection capacity on most of the borders. The regulation on access to the network for cross-border exchanges in electricity, with their congestion management and other guidelines, already provide for a market framework giving incentives to build new interconnection capacity. In this context, the most important issue is to speed up authorisation procedures and to identify other obstacles which may impede investments on a regional scale.

Security of supply and efficient functioning of the networks

The Green Paper lays emphasis on interconnections by proposing a priority interconnection plan, amongst other things. CEEP is of the opinion that developing and maintaining the network infrastructure is – beside securing sufficient investment in generation capacity – one of the crucial challenges to guarantee a high level of security of supply. Not only does there need to be investment in interconnections but also continued investment in the transmission and distribution networks. For this purpose, network access tariffs must allow an adequate profit margin in order to allow shareholders to receive a fair remuneration for the capital invested.

Furthermore, a depreciation policy which reasonably reflects the economic life cycle of assets must not be rejected for reasons relating to short term targets, in particular a maximum reduction in network access tariffs at the expense of long term security and continuity of supply. Failing these two elements, i.e. reasonable capital remuneration and depreciation policies, the will to invest will fade and – due to a deterioration in the quality of the networks – security of supply will be under threat.

As regards the creation of a European Energy Supply Observatory, care should be taken not to double other institutions already working on the security of supply patterns. UCTE and ETSO are regularly publishing long-term system adequacy forecasts for the electricity system. The legally binding UCTE Operation Handbook provides for the operational security of the electricity network. The IEA is already monitoring long-term developments in the supply and demand patterns on a global, and also European scale. The added value of a new observatory thus needs to be further clarified.

Furthermore, CEEP considers that, according to the principle of subsidiarity, national gas stocks should not be subject to further European regulation.

Towards a more sustainable, efficient and diverse energy mix

CEEP believes that the energy mix should be – in principle – a result of market developments and the underlying decisions by individual companies to invest in the energy source or technology they consider most promising. The functioning of the market should give the right signals to guarantee a sufficient return on capital to attract the huge investments needed in the coming decades to replace and develop electricity generation capacity. Any instrument to promote certain energy sources or technologies should be compatible with the functioning of the internal energy market.

With respect to diversification of energy sources, governments and the Commission should not only focus on renewable energy sources, but should also make room for the continued use of coal, gas and nuclear energy. Fossil fuels and nuclear energy cannot be separated from a transition to sustainable sources. At stake is the right balance between effectiveness, affordability, social and environmental costs and the return on investments. This means that all options must be kept open.

A discussion on the advantages and disadvantages of different energy sources, as regards security of supply, competitiveness and sustainable development, could be useful. The development of appropriate scenarios and models to substantiate this debate would be an important contribution of the European level.

As regards primary energy sources, CEEP believes that the use of indigenous energy sources, as well as the promotion of renewable energy sources and of energy efficiency measures, CHP and decentralised generation can significantly contribute to the aim of decreasing import dependency.

An integrated approach to tackling climate change

Climate change is an issue which needs to be addressed on a global scale. Whatever reductions of greenhouse gas emissions the EU might succeed in, any long-term success is bound to the reductions of big emitters like the USA and the growing Asian countries. Also, the burden resulting from the EU emission targets can lead to a comparative disadvantage of European industry on a global scale. Thus, the first priority of the EU should be the conclusion of an international Post-2012 agreement with a long-term perspective, including all major GHG emitting countries.

An integrated approach to address climate change should consist in the promotion of indigenous, low-carbon energy sources, the promotion of renewable energy sources, and the promotion of energy efficiency.

This includes coal, as a secure and cheap indigenous energy source, which will remain part of the EU's energy mix for the coming decades. It is therefore of utmost importance to develop technologies which reduce the CO2 emissions of coal-fired plants, like carbon capture and storage, but also to raise the efficiency of these plants.

It also includes nuclear power, a technology which helps to avoid CO2 emissions, and which has advantages in terms of security of supply.

As stated in CEEP's position paper on renewable energy sources[1], CEEP believes that, in the medium term, the national promotion schemes should be better co-ordinated on a European level, in order to avoid market distortions by the growing share of renewables as part of the energy mix. Also, promotion schemes should aim at the integration of renewable energy technologies into the market.

Promoting energy efficiency will be an important component of an integrated approach to tackling climate change. Most members of CEEP, among which there are many municipal energy distribution companies (supply and grid operators), have built a lot of experience and know-how in the field of energy efficiency improvements and are already contributing substantially to the development of the necessary measures.

As stated in CEEP's opinion on the Green paper on Energy Efficiency[2], regulatory action should primarily focus on removing barriers impeding the implementation of energy efficiency measures, and should promote the evolution of a market for energy services, driven by demand. A number of actions have been taken recently, for example the liberalisation of the energy sector, the introduction of the emissions trading scheme or the promotion of renewable energy sources and combined heat and power. CEEP expects a careful assessment of any new initiatives as regards their consistency with the existing framework.

[1] Cf. CEEP opinion on the Renewable energy promotion strategies, April 2005
[2] Cf. CEEP opinion on the Green paper on energy efficiency or Doing more with less, March 2006

A balanced approach, addressing all sectors and considering their different potentials for energy efficiency, is needed. CEEP believes that the most urgent need for energy efficiency improvements concerns the transport and household sectors. The action plan on energy efficiency to be proposed by the European Commission should accordingly focus on these sectors, especially taking into account the predicted huge increase in transport in the EU.

As regards heating, huge potentials for energy savings exist via the application of insulation technologies, efficient heat generation, district heating and CHP technologies. Also, heat pumps are now in a stage of development where they can significantly contribute to saving energy in many cases.

Encouraging innovation: a strategic European energy technology plan

CEEP fully supports the intention of the Commission to concentrate on research in the energy sector. CEEP believes that research in energy technologies should include a broad range of options, i. e. renewable energy technologies, fossil fuel technologies, and nuclear research.

As fossil fuels will remain an important energy source for generating electricity and heat in the EU, raising efficiency and minimising GHG emissions of conventional power plants must be a priority. Thus, a special focus for basic research should be on carbon capture and sequestration, as these technologies contribute to the minimisation of the environmental impact and thus allow the continued use of cheap, indigenous fossil fuels.

Research into nuclear power, including nuclear fission and research into the handling of radioactive waste, should also be continued in order to contribute to the development of safety, energy efficiency and radiation protection.

Also, research into new generation technologies for de-centralised power generation (e. g. fuel cells) and from renewable energy sources (e. g. geothermal) should be intensified.

Also, adapting the networks will need further research and development. In a power system which becomes more and more decentralised, and where generation follows the patterns of wind and sun, networks need to rely more and more on modern information technology to guarantee a stable supply.

Towards a coherent external energy policy

CEEP welcomes the Commission's intention to aim for a more co-ordinated external policy approach, integrating aspects of energy policy. A greater coherency of the member states when conducting their national external affairs, speaking with one voice, will considerably increase the impact the EU can have on the international scene.

The energy mix differs considerably between Member States. In its relations with the producing countries, the EU should thus contribute to the creation of a framework which allows Member States and individual companies to secure their supply of primary energy sources.

CEEP is, therefore, in favour of deepening the dialogue between the EU and Russia, OPEC and the Caspian basin. All of these initiatives can contribute to opening up new sources and

transport routes for primary energy sources, thus securing supply. The creation of new transport routes will also contribute to avoid the EU's dependency on single producing countries, giving more options in the negotiation of contractual conditions. In this context, transport links to the North African and Middle Eastern countries should be reinforced.

CEEP fully supports the creation of a Pan-European energy community, with differentiated roles and responsibilities for all of the EU's neighbours. In this context, CEEP welcomes the intention of the Commission to extend the energy community treaty to other neighbouring countries, especially in Northern Africa.

About CEEP

CEEP is the European Association representing enterprises and employers' organisations with public participation and enterprises carrying out activities of general economic interest, whatever their legal ownership or status.

One of the three Social Partners recognised by the EU Commission, it represents the public sector employers in the European Social Dialogue.

At present, CEEP has several hundred member associations, enterprises and organisations in over 20 countries. Beginning of the year 2000, associations of, or individual enterprises with, public participation employ almost 15 million people in the European Union, of which over one million at local level. Their economic impact could be estimated at approximately 9% of the European trading sector.

From:
Sent: vendredi 1 septembre 2006 16:44
To: TREN MAIL
Cc:

Subject: FW: ETSO comments on the EC Green paper
Attachments: ETSOon GP01-09-06.pdf

For registration Directorate C please
Attribution C1
copy C2
Thank you

-----Original Message-----
From: tso-net.org]
Sent: Friday, September 01, 2006 2:55 PM
To: V)
Cc:
Subject: ETSO comments on the EC Green paper

Dear Mr. t,

We have the pleasure to enclose herewith, for your information, **"ETSO comments on the EC Green paper for a European Strategy for Sustainable, Competitive and Secure Energy".**

As you can see, 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.

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 looks forward to discuss further this paper with all stakeholders.

Thanking you in advance for your cooperation, we remain,

Yours sincerely,

Secretary General
ETSO

...

DG TREN	CODE:
AV	31079
ACTION:	ECHEANCE:
	04. 09. 2006

R	A	B	C	D	E	F
G	H	I	J	CP1	CP2	CP3
DG	ASB	01				AAE
			DGA	DGA	DGA	
			CD	EFG	HI	

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 present 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%[1] 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 if 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.

[1] Barcelona European Council 15 and 16 March 2002

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:

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.

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-at-large.

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.

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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. 2nd 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.

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 CO2 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.

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.

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 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.

European Petroleum Industry Association

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.

secure investment climate, provisions for market opening, regulatory convergence etc. in a manner that is fair for all parties.

Energy to promote development

OGP members support the intention of the EU to raise the profile of energy efficiency in development programmes. Such programmes should enable developing countries with limited financial capability to gain access to modern energy services in an intelligent, non-wasteful way.

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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.

OGP appreciates the Commission's recognition that hydrocarbons will continue to play a major role within the European energy mix and that Europe will continue to be dependent on imports. OGP agrees that a coherent external energy policy can help improve Europe's access to global hydrocarbon resources. Therefore formulating an appropriate external energy policy is highly important to Europe's future energy supply.

Investment security and access to resources are major challenges for OGP members both inside and outside Europe. The political as well as the regulatory framework in all areas of the business must be balanced and adequate.

A clear policy on securing and diversifying energy supplies

Projects for the upgrading and construction of new infrastructure should be based on market signals and supported by private investors. The EU and Member States involved should provide the concrete political and regulatory framework needed to support the undertaking of such projects by business. This could require careful and appropriate application of competition rules and regulatory provisions in order to promote investments and to maintain Europe's attractiveness as an importing destination. Regulatory provisions should be adjusted to promote investments, not to hinder them.

Energy partnership with producers, transit countries and other international actors

The oil and gas industry agrees with the Commission's observation, that the EU and its energy partners are interdependent and that external policies are increasingly impacted by energy issues. The industry therefore appreciates having been involved in a number of dialogues with producers and other consuming regions to help achieve their objective. OGP looks forward to continuing this active engagement.

Developing a pan-European Energy Community

OGP supports developing a pan-European Energy Community by progressively developing common trade, transit and environmental rules, market harmonisation and integration on a win-win basis. OGP also supports the extension of the Trans-European Energy Networks and associated financial facilities to third country partners.

Dialogue with major energy producers/suppliers

OGP member companies support the development of true partnerships with energy producing countries if the aim is security and predictability, fair and reciprocal access to markets and infrastructure on both sides.

Reacting effectively to external gas crisis situations

OGP suggests the Gas Coordination Group (as established through Council Directive 2004/67/EC) deal with coordination tasks in emergency cases. The monitoring obligations of Article 6 in conjunction with information from member states and market players should give sufficient information to be able to deal with such crisis events.

Integrating energy into other policies with an external dimension

The OGP member companies agree with the need to integrate energy policies into other policies for broadening relations with third countries. Objectives of these policies could be to increase the focus on: energy efficiency, climate change, research and development of all energy technologies, access to resources and investment trends. OGP also strongly supports the promotion of non-discriminatory energy transit and the development of a more

to be given to the fact that natural gas is the lowest carbon fossil fuel with high efficiency of combustion, especially when used in combined heat and power production.

Carbon capture and geological storage

OGP members believe that a portfolio of options is needed to manage the risk of global climate change. Carbon dioxide capture and geological storage is an important transitional option that can result in large reductions in emissions of carbon dioxide. OGP would like to stress that the indigenous potential for geological storage of carbon dioxide is very large. Furthermore such carbon dioxide can partially be utilised for improved recovery of indigenous hydrocarbons.

Apart from R&D and large-scale demonstration projects, the Green Paper rightly mentions the need for legal certainty for the private sector. This relates in particular to existing international, regional and national law, since carbon dioxide storage was not considered when such laws were adopted and compatibility is uncertain. It is also unclear what the safety, environmental and liability conditions might be. Moreover, rules are needed giving carbon dioxide storage the same emissions trading credit as other emission reductions.

5. Encouraging innovation: a strategic European technology plan

OGP members support a strategic European Technology plan. The Green Paper does not give much consideration to oil and gas in this context, despite the important role that hydrocarbons will continue to play in the European energy mix. The following should be noted:

Continuous research and development by industry, often with universities and other research organisations, has enabled the industry to meet increasing technical challenges and rising demand for oil and gas. One of the key challenges that OGP members will continue to address is developing improved technologies to find and produce oil and gas with a minimum of discharges and emissions, whilst also developing ways to use fossil fuels more intelligently through decarbonisation and CO_2 management. Future business opportunities will be found for companies within the areas of mature fields, by significantly increasing recovery rates, by developing deep and ultra deep water resources, tight natural gas and other non-conventional reservoirs, and by exploring the technological and economic potential of hydrogen as an energy carrier. To maintain a competitive edge, investments in hydrocarbon R&D will continue to be needed. Oil and gas technology "made in Europe" is literally fuelling the economic and social development of Europe, whilst also providing the raw materials and feedstock to associated industries such as petrochemicals and pharmaceuticals. In light of current concerns over climate change, OGP members welcome the consideration of climate-friendly fossil fuel technology research for the 7th Framework Programme. The Programme should benefit independent university research, thereby attracting young people to sciences and engineering.

6. Towards a coherent external energy policy

Over the years the industry has increased the availability of oil and gas resources both in Europe and in exporting countries. The industry has done this by developing new technology to identify new reserves of oil and gas and to increase exploration success, by adding new discoveries in existing and previously inaccessible provinces and by reducing costs and improving the recovery of known oil and gas resources.

It is equally important that a level playing field be maintained among the different energy carriers. This should also be reflected in the EU Strategic Energy Review, by which the Commission proposes to monitor the evolution of the energy mix and to analyse advantages and drawbacks of all sources of energy. It is paramount that the Strategic Energy Review reflects that indigenous oil and gas resources are secure sources of energy to European customers.

The EEA's indigenous hydrocarbon production potential will continue to be significant, even if there are challenges arising from the maturity of its producing basins. These resources will continue to make a valuable and important contribution to Europe's future energy supply.

4. An integrated approach to tackling climate change

The EU's drive to keep the worldwide debate on climate change alive by designing global action plans is commendable. OGP agrees that only a strategy including all major emitting countries will be able to address the issue of climate change in a meaningful and effective way and safeguard the competitiveness of European industry.

Investment in the upstream oil and gas sector is characterised by lead times of up to 15 years and long life times, and needs to take climate change policy into account. Large CO_2 reduction projects require clarity for a period up to 10 years. Long-term clarity about the post-2012 climate change regime is therefore important. This would include greater certainty about the future of the flexible mechanisms under the Kyoto Protocol and the required reductions in emissions.

The current uncertainty at the global level translates into uncertainty about the future of the EU Emissions Trading Scheme. One of the reasons that the liquidity in the EU allowance market is sub-optimal is uncertainty about the next allocation period. OGP recommends that the length of the trading period under EU ETS be extended to ten years after 2012. Decisions on allowances should be made three years prior to the start of a trading period. Overall, a stable and reliable framework should be the aim, i.e. once decided, rules should remain mainly unchanged. Operators should be able to obtain Emission Reduction Units (ERUs) from Joint Implementation (JI) and Certified Emission Reduction units (CERs) under the Clean Development Mechanism (CDM) as soon as possible. Their use should not be restricted beyond the requirements of the Kyoto Protocol to enable EU participants to reduce emissions in the same cost-effective way as other parties to the Kyoto Protocol.

Increasing the use of renewable energy sources

OGP supports the continuing diversification of the energy choices available to consumers and society, including the development of economically sustainable additional energy sources and user technologies. The Renewable Energy Roadmap could provide a useful impetus in this respect. 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.

OGP supports the Commission's ambition to bring clean and renewable energy sources closer to market. However, competitiveness should be respected, notably through limiting subsidies in time and avoiding unbalanced taxation to reduce hydrocarbon demand. Undue energy taxation will reduce Europe's industrial competitiveness. A level playing field will ensure an optimum energy mix of indigenous and imported hydrocarbons. Due attention has

existence of such a list would constitute in itself. Effective national legislation and bilateral agreements in place in many Member States prompts the suggestion that the Commission undertake a thorough status analysis to identify any gaps or room for improvement and EU harmonisation. For further details, please refer to the full OGP response to the Green Paper on EPCIP.

Rethinking the EU's approach to emergency oil and gas stocks and preventing disruptions

Diversification remains the cornerstone of security of supply policy. This means diversification in its widest sense: of energy type, of source and transportation route, of technology and contract, as well as of producer and supplier.

With respect to natural gas, European gas distribution systems have, historically and as observed through recent events, demonstrated their capability of handling shorter term supply disruptions through the flexibility of the physical infrastructure, including pipelines, storage facilities and commercial arrangements.

Although strategic stocks may provide an insurance policy, it also carries with it some difficulties:

- The risk of undermining the market: liquid markets have seasonal and volatile prices, and spikes are an important economic signal for the development of storage and production capacity and the pricing of derivative and risk management products. Use of strategic stocks to manage prices could dilute these price signals. Therefore clear rules must be set for use of strategic stocks.
- The danger of lack of transparency: this applies in particular to the question when and under which circumstance strategic stocks are released.
- Uncertainty over who bears the considerable cost of additional stocks and related transport infrastructure and how this is recovered.

Any renewed consideration of strategic gas stocks should take into account the above-mentioned features and build on existing legislation in this field (Directive 2004/67/EC concerning measures to safeguard security of natural gas supply). Such legislation requires Member States to take provisions in the case of partial disruptions of gas supply, extremely cold temperatures etc. As Member States implement the provisions of this Directive and as supply sources are increasingly diversified through more pipelines, LNG terminals and improved interoperability, the need for strategic stocks has to be carefully balanced against alternative solutions and checked in a thorough cost-benefit and probability analysis.

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

OGP believes that establishing the energy mix should continue to be a function of energy companies responding individually to market forces within energy strategies determined by each Member State.

OGP recognises the potential value of the planned Strategic EU Energy Review. Concerning the energy mix at European level, OGP would like to stress that much as a diverse portfolio of energy carriers is important, a truly balanced energy mix should also account for diversity of sources and transportation routes. However, EU measures, including overall strategic objectives for the energy mix could be incompatible with Member States' strategies. Such incompatibility would create increased uncertainty and could diminish companies' willingness to invest.

continue to be developed and expanded into more geographically and technologically challenging frontier areas. All of this will require considerable investment.

OGP agrees with the Commission's view that investments, both for electricity and gas, require a properly functioning market, access to finance and a stable regulatory and fiscal environment.

A level-playing field: the importance of unbundling

While recognising that differences of implementation of the Gas Directive exist at Member State level, OGP believes that existing legislation should be given the time necessary to achieve its intended results, i.e. closure of the gap between the "letter" and the "spirit" of the legislation. OGP would also like to restate the view of its members that legislative changes should only be developed after having identified any failure of existing legislation and with a good understanding of the consequences of any remedy to such failure.

Boosting the competitiveness of European industry

The upstream industry has been successful over the years in contributing to growth and jobs in Europe. Its input to industrial competitiveness will continue if a well designed, stable and predictable regulatory framework continues to exist, allowing for both short and long-term contractual arrangements in which parties are free to negotiate the terms that best suit their economic needs. In contrast, overregulation imposing constraints on commercial activity will have a detrimental effect on competitive prices and security of supply.

With respect to the work of the High Level Group on Competitiveness, Energy and the Environment, OGP would be happy to contribute and assist in promoting the competitiveness of European industry.

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

Enhancing security of supply in the internal market

OGP agrees with the Commission that a liberalised and competitive gas market is conducive to security of supply and is essential for providing timely investment signals to industry participants. Gas markets are expected to experience greater transparency and thus predictability, as they mature. OGP therefore welcomes in principle the development of a European Energy Market Observatory System in this area so long as it is a complement to existing market information systems. In comparison, oil trade is very mature and transparent; it is the world's largest commodity market. In any case, an observatory should limit itself to monitoring short- and long-term developments and definitely avoid any active interference with market dynamics.

Moreover, OGP is pleased to be involved in discussions with the Commission and Member States on a European Programme for Critical Infrastructure Protection (EPCIP). Distinction between the right approach to crisis management and the right approach to crisis prevention is important due to the different nature of the two. So is a clear regulatory distinction between the prevention of damage from natural disasters and technical failure with that from terrorist activity.

To determine risk and criticality of an installation, severity of impact and vulnerability need to be taken into account on an equal footing. The advantages of the idea of drawing up a list of EU critical installations would need to be weighed up against the security risk that the

needs to be carried out without jeopardising confidence in regulatory stability or predictability, allowing for long-term planning of infrastructure and supplies. Strong and independent national regulators, able to act coherently across adjacent markets then become important in creating the necessary conditions for investment and supplies. In this context, it is worth noting that regulatory gaps may be as problematic as regulatory overlaps in terms of generating uncertainty, confusion and additional costs.

With regard to the described regional approach, OGP sees the need for a more holistic and harmonised move forward to avoid fragmentation of policy and regulatory developments. With the current lack of integration between national markets identified by the Commission as a shortcoming, the emergence of regulatory regions might possibly even unintentionally perpetuate geographic market segmentation. If a regional approach is to be undertaken, there must be appropriate safeguards to ensure regulatory compatibility across Europe.

A priority interconnection plan

OGP underlines the importance of interconnections in establishing a functioning internal market for gas. Such interconnections are also important with respect to security of supply inside the EU. A priority interconnection plan should be formed under the umbrella of the Trans-European Energy Network. Furthermore, OGP welcomes the call for improved framework conditions for infrastructure investments - in particular through long-term predictable tariffs -, accelerated authorisation procedures, and favourable investment conditions. OGP recalls that timely and sustainable investments require a properly functioning market, giving the necessary pricing signals, regulatory stability and access to finance.

OGP has engaged intensively in the debate on long-term contracts and is pleased to note that both the Gas Directive and the Security of Supply Directive acknowledge the importance of such contracts. However, the fact that the Green Paper raises issues with respect to elements of long-term gas contracts could potentially impair security of supply and is hence a matter of concern for OGP.

Fundamentally, the substantial capital commitments and long timescales of the investments undertaken in the gas industry require long-term contracts mainly to secure production investments, to reserve corresponding transportation capacities and to address the requirements of financial institutions. Financial institutions predict that long-term contracts will continue to be necessary in the future to secure financing for a number of gas development, storage and pipeline projects.

Taking Europe's increasing import dependence into account, OGP believes that a major part of gas supplies for Europe will continue to be based on long-term contracts. If circumstances allow, other contract types are conceivable and do exist.

Apart from supporting security of supply, the option to enter into long-term contracts provides additional choice to buyers. In an effective market, buyers should have a range of supply options, be they long-term, short-term or spot purchases. By entering into a mix of commercial arrangements, buyers are able to set their own level of supply security.

Investment in generation capacity

The power sector will be one of the main drivers for additional gas demand. The EU gas market continues to expand and demand is projected to grow. This will require a multiplication of gas transport routes, and subsequently lead to more integration of the European gas networks. While remaining important, the European indigenous resources will

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

Six Priority Areas

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

OGP fully supports the completion of a truly competitive single European gas market with efficient pricing conducive to security of supply and competitiveness. Gas prices are expected to remain cyclical as are the prices of other energy commodities. Furthermore gas sold in Europe will continue to be linked to prices of other energy carriers in the global market and increasingly reflect prices of gas in other regions of the world.

With respect to completing the internal gas market, OGP would like to offer two overarching comments:

- The EU gas market continues to expand and the demand is projected to grow by 1.6-1.8% annually. Gas markets are also projected to grow in other areas in the world and some of these regions will change from self-sufficiency to being net importers. This will have an impact in world gas trade patterns. For Europe this will mean an increase of imports over long distances, including an increase in LNG shipments and a growing number of LNG import terminals. The EEA's indigenous gas production potential will continue to be significant. Even if there are challenges arising from the maturity of its producing basins, these resources will continue to make an important contribution to secure European energy supplies for the foreseeable future.

- The continued expansion in European demand, the changes in world gas patterns and dependence on resources further afield have been recognised and are being addressed by the market participants. The further development of the internal gas market, enhanced integration of the European gas network, and deeper dialogues with producing countries are appropriate responses to such developments. With respect to the internal market for gas, OGP member companies believe in the principle of liberalisation. Meeting the objective of liberating commercial forces not only requires a level playing field for competition but also regulation that is enabling, proportionate and predictable.

A European gas grid

OGP strongly supports a framework of harmonised regulatory regimes to help develop a competitive single European gas market. OGP believes that the full implementation and application of the Gas Directive will foster market opening. Additionally, a range of technical activities, such as those initiated by the Madrid Forum and currently worked out by EASEE gas will serve to identify and relieve constraints in the interconnections and improve interoperability.

To this effect OGP support the two-step approach in which the Commission plans to review the powers and independence of national regulators and in a second phase to examine improved cooperation among national regulators.

Achieving a coherent regulatory framework both within the EU and at its borders is of great importance. OGP is of the opinion that this also requires continuous regulatory development in response to changing conditions within and outside the EU. Such continuous development

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_2 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_2 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.

EUROPIA, in its contribution to the Green Paper, advocates:

- Better national implementation of existing EU legislation on **compulsory oil stocks**, applying equal treatment to all players;
- Accuracy and consistency of data reported by the **Observatory** taking priority over speed and frequency of availability;
- A focus on real terrorist threats and utmost confidentiality for **improved physical security** avoiding any 'all hazards' approach, duplicating effort and legislation;
- An Action Plan on **Energy Efficiency** aimed at boosting equipment energy efficiency performance and encouraging end-user energy-conscious behaviour;
- Use of **biomass** in stationary applications, such as heat and power generation, offering the best energy efficiency and greatest GHG avoidance potential, also thanks to the development of new, "advanced", conversion technologies (i.e. 2nd generation biofuels and beyond) which can use a range of feedstocks;
- Imports of biofuels and development of **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, most of which is exported to the US.

We hope that the two papers will provide you with useful information, and would be delighted to receive your feedback. We would very much welcome an opportunity to discuss some of the issues in detail with you in the not-too-distant future.

Yours sincerely,

CC. **Mr** , Deputy Director-General, Co-ordination of energy policy
Mr Director, Conventional sources of energy
Mr ead of Unit C.1 – Energy policy and Security of supply
Ms Head of Unit C.2 – Electricity and Gas
Mr Head of Unit C.3 – Coal and Oil, Market Observatory

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International Association of Oil and Gas Producers

European Petroleum Industry Association

Manager EU Affairs Secretary General

TREN	CODE:
	274437
ACTION:	ECHEANCE:
	17. 07. 2006

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			CD	EFG	HI	

Mr
Director-General
Directorate-General for Energy and Transport
European Commission,
B – 1049 Brussels

12th July 2006

Subject: Green Paper "A European Strategy for Sustainable, Competitive and Secure Energy" COM(2006) 105 adopted March 8, 2006

Dear Mr

OGP and EUROPIA have pleasure in presenting to you their responses to the Green Paper "A European Strategy for Sustainable, Competitive and Secure Energy".

OGP represents companies, national associations and other organisations who are engaged in the exploration for, and the extraction of, oil and gas. EUROPIA represents the European oil refining and marketing industry. The two associations have, among others, a number of common members, who are integrated companies involved in both parts of the business. The attached papers – focused on upstream and downstream issues respectively – reflect the common understanding of the two business sectors on the Green Paper.

Both associations are committed to the objective of meeting Europe's need for secure and competitively priced energy in a sustainable manner, and to continuing their contribution to the debate on EU security of supply. Both OGP and EUROPIA are pleased to participate in the Berlin Fossil Fuels Forum. OGP also participates in the Madrid Forum for gas.

OGP, in its response to the Green Paper, addresses in particular:

- Completion of the **internal European gas market**, including questions of technical and regulatory **interoperability** and the role of **long-term contracts**;
- **Security of supply**, including the question of whether **strategic gas stocks** are needed;
- **Energy mix,** including competences, diversity of energy carriers as well as sources and transport routes, and **the role of European production** in securing oil and gas supply;
- **Climate change**, including post-2012 policy, the Emissions Trading Directive and the potential for carbon dioxide capture and storage;
- **Energy technology**, including the role of independent university oil and gas research and the need to attract young people to hydrocarbon skills and engineering;
- **External energy policy**, including the challenges for industry of access to resources, infrastructure development and investment security, both inside and outside Europe.

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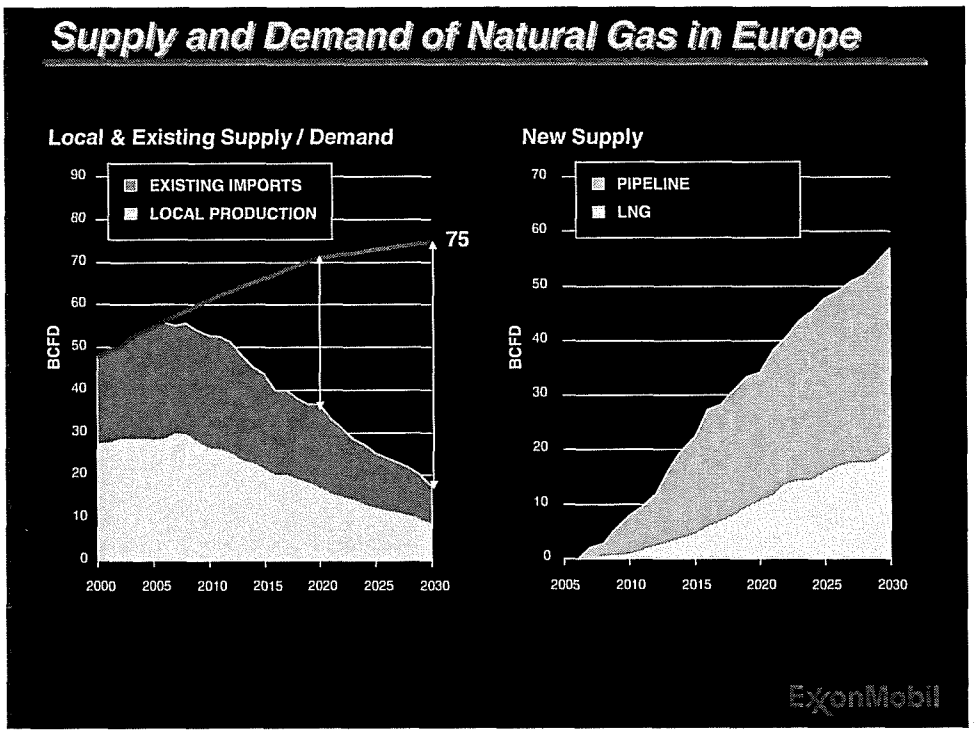
Chart 3, Source: ExxonMobil



ANNEX - Charts referred to in the text.

Chart 1, Source: ExxonMobil

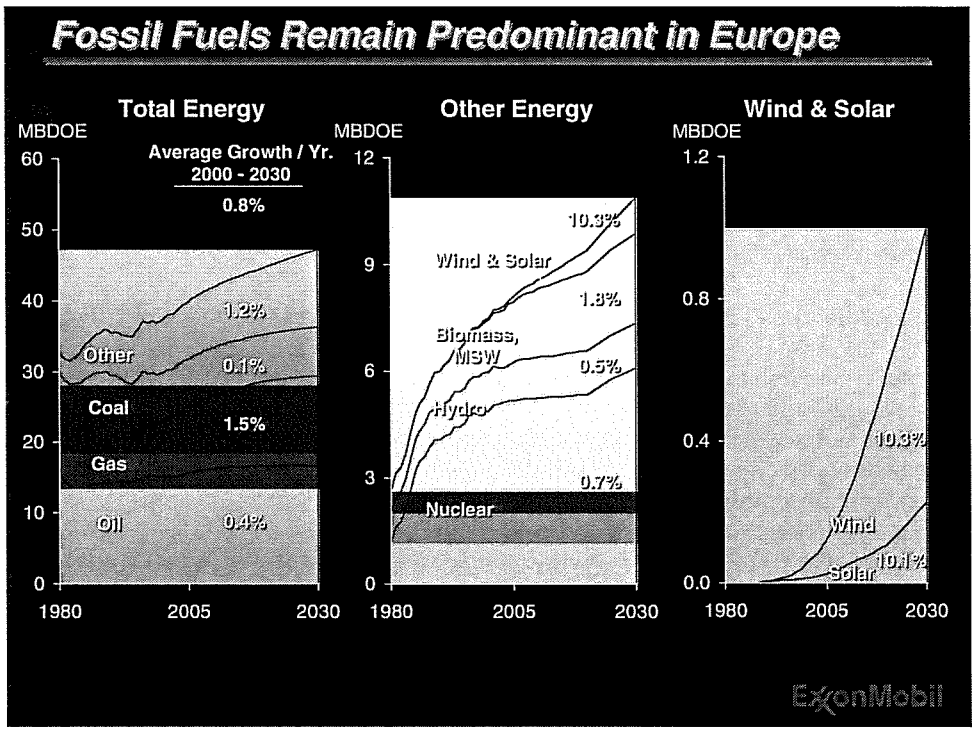
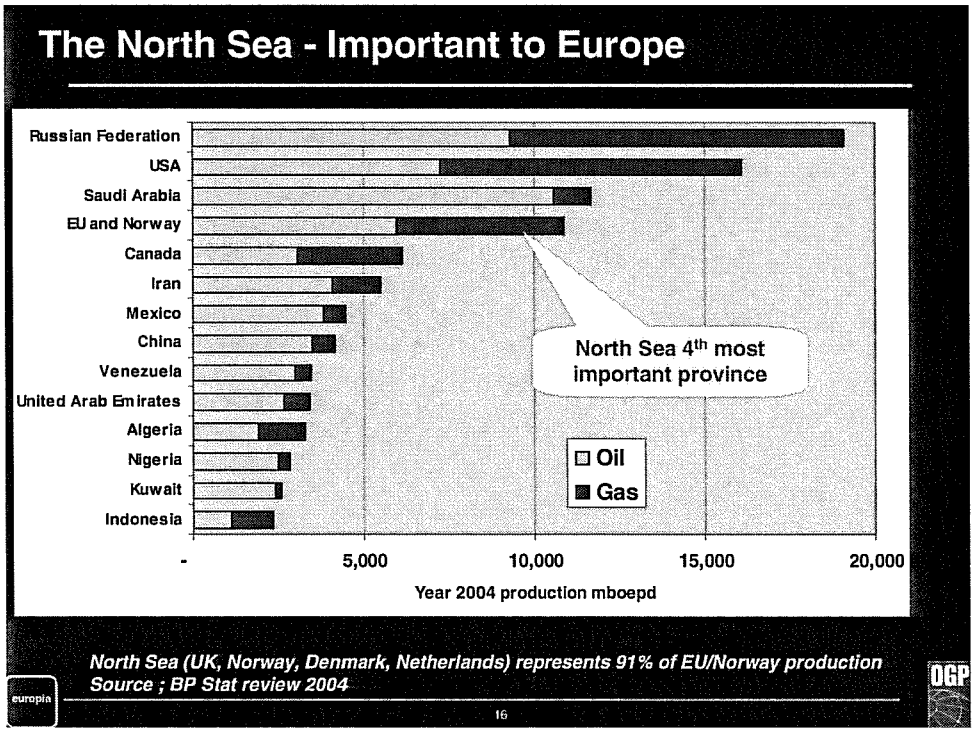


Chart 2, Source: BP PLC



- Sustaining economic strength in the energy sector and others requires that we become more inter-dependent, by diversifying interconnection between supply and demand. Access to energy must be dealt with collectively.
- EU should promote with its external partners regulatory reforms and positive alternatives to command-and-control practices.
- EU should keep expanding international trade, to help close the growing gap between net energy producers and net energy consumers through open commercial circuits, and to eliminate the premium consumers pay for artificial obstacles.
- EU should keep promoting with its energy partners political and legal stability, reliable institutions and respect towards contractual agreements (particularly those increasing investment) to marshal the vast sums required to produce hard-to-access energy resources and to foster the technological progress needed to keep pace with growing demands, economic and environmental.
- EU should reinforce its continuous government support to fight bribery and corruption

Sustaining economic growth will require the EU to compete in the global energy market for future resources. Since we are all contributing to and drawing from the same pool of resources, all nations – exporting and importing – are inextricably bound to one another in the energy marketplace. If importing nations, such as those within the EU, diversify their sources of energy, strengthen their partnerships with exporting nations, and develop and use their resources more efficiently, they will become less dependent on any one country or region for energy. In addition, by removing barriers to trade, reducing taxes, and opening markets, importing nations will be in a better position adapt to disruptions that do occur. Energy unilateralism, including capping the energy mix and imposing trade restrictions, is ultimately self-defeating.

Governments have a vital role to play in providing access to acreage, opening markets, reducing barriers to trade and avoiding harmful policies, such as subsidies and regulations that can weaken or distort energy markets. However, ultimately, the best guarantee of supply security is the establishment of an effective market framework providing open competition, market pricing and adequate investment incentives for attracting diverse supplies. The large projects that are increasingly important to bring new gas supplies to Europe in the future require long-term investment commitments that at minimum require certainty of access to the market for the duration of the project. Given the enormous investments involved, potential investors need also to be confident of the sanctity of their contracts, the recognition of their intellectual property rights and support for the rule of law.

- More widespread application of existing energy-efficient technologies could significantly reduce the growth in greenhouse gas emissions from economic progress in both the industrialized and the developing world.
- Development and deployment of new, energy-efficient technologies can enable lower energy consumption without damage to economic growth.
- New breakthrough technologies offer the possibility of substantial long-term reductions in greenhouse gas emissions at lower costs than current technology options.

Carbon Capture and Storage: A technology option that could play a significant role in helping reduce CO2 emissions from the use of fossil fuels is carbon capture and storage (CCS). This technology could have a major impact, as it is applicable to any large-emission source of CO2. The IPCC estimates that these large facilities account for nearly 60% of global man-made CO2 emissions. Before CCS can be widely deployed on a global scale, it must overcome important challenges. In particular: 1) CO2 capture from power plants and most other large combustion facilities remains expensive, and 2) CO2 storage presents technical and regulatory issues associated with ensuring safe operations and the integrity of the site over the long term. Notwithstanding these challenges, we believe that CCS represents an important option to address global CO2 emissions.

Technology Choice and CO2 Emissions: If new technologies are to be applied to realize reductions in CO2 emissions, then conducting a well-to-wheels analysis is important to understand the cost of various options in terms of euro per tonne of CO2 abated. Applying the lowest abatement cost options first will maximize impact while minimizing costs.

Priority Area 5. Encouraging innovation: a strategic European energy technology plan

KEY POINTS:

The focus on technology development and deployment is supported by the recognition that:

- The more widespread application of existing energy-efficient technologies could significantly reduce the growth in greenhouse gas emissions from economic progress in both the industrialized and the developing world.
- Development and deployment of new, energy-efficient technologies can enable lower energy consumption without damage to economic growth.
- New breakthrough technologies offer the possibility of substantial long-term reductions in greenhouse gas emissions at lower costs than current technology options.

Meeting future energy needs, while addressing concerns about energy security and rising greenhouse gas emissions, will require a diverse range of energy technologies. As technical hurdles are overcome, the gradual and widening global deployment of new technologies will continue to help enable a substantive contribution to meeting growing requirements for energy in the coming decades. ExxonMobil agrees that it is vital to stimulate research and development to create innovative, affordable, lower GHG technologies applicable for deployment on a broad scale. In this regard, it is important to encourage more rapid penetration of existing efficient technologies (in both developed and developing countries).

ExxonMobil worked to establish and is providing $100 million to Stanford University's Global Climate and Energy Project – the largest-ever independent climate and energy research effort. GCEP is a major long-term research program designed to accelerate development of commercially viable energy technologies that can lower GHG emissions at a worldwide level.

Priority Action 6. Towards a coherent external energy policy

KEY POINTS:

- EU needs to foster with its external partners a favorable global business environment, a competitive framework in which companies, investors and governments can make realistic and reliable analyses of risk and reward.
- EU needs to promote, without ambiguity, the need for opening markets, not only to provide more access for more people to energy and other vital commodities they need, but also to enable investors and operators to make the most educated and effective decisions on the allocation of capital.

- **Solar energy** remains far more costly, except in limited applications. Existing solar photovoltaic technology is significantly more costly than conventional electricity generation. Breakthrough technology is needed to create fundamentally new photovoltaic materials that will allow power generation at competitive costs. A key issue in the ability of wind and solar technologies to contribute to electric power supply is intermittence. Stable electric grids require traditional generating facilities or costly backup systems to ensure uninterrupted supply to consumers on cloudy days, at night or at times the winds fail. Without a breakthrough in energy storage technology, intermittency limits the ability of wind and solar energy to contribute to electricity supplies and increases the overall costs of integrated power systems.
- **Gasification,** a technology that was developed decades ago, may see increased use in the future. Gasification can process any carbon containing feedstock such as coal, biomass or heavy oil and convert it into a "synthesis gas" that can be used to produce electricity, liquid fuels, hydrogen or chemicals. Gasification is also better suited to use with carbon capture and sequestration than other processes that can use the same feeds.
- **Advanced Nuclear** energy has the potential to become an increasingly important option for meeting a growing portion of our long term energy needs, specifically in the area of power generation. Key barriers to increased use of nuclear today are perceived safety risks and the lack of an acceptable solution to the long-term management of radioactive waste.
- **Biofuels** may play a role in meeting future transportation energy demands but technology breakthroughs are required to overcome the scale and cost limitations of today's options. A new generation of processes capable of using a more diverse set of biomass feed stocks may be able to overcome these challenges. Focus should be on achieving the needed technology breakthroughs, not on subsidizing or mandating the introduction of uneconomic biofuels components in transportation fuels.
- **Hydrogen fuel cell vehicles** could be an important alternative for the future but economic manufacturing, storage and supply of hydrogen all require technological breakthroughs. Any evaluation of hydrogen needs to recognize the costs and the greenhouse gas emissions associated not only with its consumption, but also its production and distribution.

Priority Area 4. An integrated approach to tackling Climate Change

KEY POINTS:

- ExxonMobil supports the Commission's goal of using an integrated approach to reduce greenhouse gas emissions.
- ExxonMobil believes the following objectives should be included in long-term climate policy:
  1. Promote global participation.
  2. Encourage more rapid use of existing efficient technologies (in both developed and developing countries).
  3. Stimulate research and development to create innovative, affordable, lower GHG technologies sooner.
  4. Address climate risks in the context of developing country priorities: development, poverty eradication, access to energy.
  5. Continue scientific research to assess risks and identify the appropriate pace of policy responses.

Efficiency: By using oil and natural gas more efficiently, the life of energy resources is extended while also reducing costs. A clear example of energy efficiency at work is the 85 cogeneration plants around the world in which ExxonMobil has interests. Through the simultaneous production of steam and electricity at these facilities, ExxonMobil provides 3,700 megawatts of power globally, enough for about seven million average European households. With the latest technology, cogeneration is up to twice as efficient as traditional methods of producing steam and power separately. In other words, cogeneration provides for a net reduction of emissions.

As nations have begun to consider other options for reducing GHG emissions, there is a growing interest in the role technology can play in emissions reduction. For example, the recently announced Asia Pacific Partnership for Clean Development and Climate aims to promote the use of clean, efficient technology. The latest G8 statement and the EU-China Climate Partnership also highlight the importance of using and developing innovative technologies. The focus on technology development and deployment is supported by the recognition that:

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

ExxonMobil welcomes the opportunity to comment on the Commission proposal to create a Strategic EU Review process, as a tool towards achieving a secure and competitive energy supply.

KEY POINTS:

- Diversity of supply sources is fundamental to security of supply, and a healthy oil industry provides the diversity of supply in gas and liquid fuels that underpins European supply security.
- Ultimately the best guarantee of supply security is establishing an effective market framework providing open competition, market pricing and adequate investment incentives for attracting diverse supplies. Essential to this market framework is a stable and predictable fiscal, regulatory and legal system.
- A strategic EU energy review can contribute to achieving a diversified and optimized energy mix if its recommendations are based on market economics.
- A Strategic EU Energy Review must provide the correct framework in which alternative supply sources in terms of fuel type and geography are able to compete on a level playing field. Governments have a vital role to play in providing access to acreage, opening markets, reducing barriers to trade and avoiding harmful policies, such as subsidies, mandates, and regulations, that can weaken or distort energy markets. Given the enormous investments involved, potential investors need to be confident of the sanctity of their contacts, the recognition of intellectual property rights and support for the rule of law.
- Future energy policy must recognize the importance of oil and gas as they will remain the primary energy sources for at least the next two decades providing approximately 60% of Europe's energy requirements by 2030.
- Fortunately, the European Economic Area is home to the fourth largest oil and gas production area in the world, exceeded only by Russia, the US and Saudi Arabia. The EU & Norway represent the third largest producing area in the world (after the US and Russia) in terms of accessibility to the international oil companies.
- Meeting future energy needs will require a diverse range of energy sources and technologies. Over and above the technical challenges, the scale of the energy business means that widespread global deployment of new technologies, however promising, will take decades before the cumulative effect of investments makes a substantive contribution to overall supply.
- As concerns transport fuels, a continued improvement in the Internal Combustion Engine performance, including gasoline hybrids, diesels, and advanced ICE technologies, offer the potential for significant improvements in both their efficiency and CO2 emissions compared to today's technology. Given the promise of various Advanced Vehicle and fuel technologies it is premature to pick winners and losers. A 'Well to wheels' analysis - which means that in order to determine the true efficiency and environmental impact of a fuel, you have to consider every aspect of the development chain from the point you take an energy source like oil, natural gas or coal out of the ground, or capture it via wind or sun, to the way it is refined or processed into a fuel to the manner in which it is distributed and finally consumed by the end user - is critical in assessing the options.
- In looking at lowering CO2 emissions, the lowest cost route may be outside the transport sector. Reductions in other sectors, such as power generation, may be lower cost and have a greater near term impact. A unit of wind or solar energy that is used to displace coal in power generation saves 2.5 times more carbon dioxide than using the same unit of wind or solar energy to replace gasoline with hydrogen.

Energy Mix Diversification

- **Wind** is currently the most competitive emerging renewable energy source. While growing rapidly, its impact on the overall energy supply mix is limited. In some applications, wind-generated electricity can be cost-competitive with that generated from natural gas, but it generally relies on government subsidies to be economical.

Under the existing regulatory initiatives, market transparency will develop and predictability will increase as market participants analyze the available information. We therefore do not see the requirement for development of an additional European Energy Supply Observatory to monitor short and long-term developments.

Multiple fora, i.e. the Madrid, Florence and Berlin, currently exist where interoperability is jointly discussed between Member States, Regulators and European trade associations which represent all the stakeholders. Attention to improving the effectiveness of these existing forums is likely to produce quicker results in preference to establishment of additional bodies. New interconnections will develop as market players identify the need and a legislative framework exists that provides the correct conditions for price signals, investment environment and permits, and authorization procedures to facilitate their development

Strategic Oil Stocks

Inter-governmental cooperation is appropriate for the establishment and use of strategic oil stocks as a shield against serious national harm in the event of a severe supply disruption, with decisions to establish strategic stocks based on cost/benefit analysis. Governments should fund and be accountable for the stock management, which should minimize market distortions. Use of public stocks should be transparent to the market place, and strictly limited to use as a shield against serious public harm in the event of a severe supply disruption, and not as a price-management tool.

The International Energy Agency has established procedures for holding strategic stocks and dispensing them in the event of a disruption. Any stock holding or release mechanisms identified by the EU should be communicated to and coordinated with the IEA rather than through a separate system that might come in conflict with IEA actions during an emergency.

If a government chooses to establish a stock requirement for the general public interest, it is important that equal treatment applies to all the companies. Crude plays the key role in supply continuity and therefore should be considered the most effective component, located in the refinery center, of stock security. This avoids degradation of product stocks, reduces complexity and allows refineries to meet to needed type of product demands at the time of the supply disruption. The complexity of record keeping associated with the ticket system is also considerably reduced. Moreover, EU should ensure flexibility across Europe on where the crude stocks are held. This would reduce operating costs and build flexibility in meeting emergency requirements with common rules for release.

Gas Storage Obligations

Historically, and as has been seen through recent events, Europe's gas transmission system has demonstrated its capability of handling shorter term supply disruptions through the flexibility inherent in the physical infrastructure (including pipelines, storages and commercial arrangements). In our view, any renewed consideration of additional strategic gas stocks should build on existing legislation in this field (Directive 2004/67/ EC concerning measures to safeguard security of natural gas supply). This Directive requires Member States to take provisions in the case of partial disruptions of gas supply, extremely cold temperatures etc. Assuming all Member States' comply with this Directive, and taking into account the positive effect of increasing diversification of supply sources through more LNG terminals and increasing interoperability, the need for more strategic storage will diminish. We are of the view that the market should be left to decide on how demand, including peak winter demand, should be met and with which tools, i.e. contracted supply, interruption, demand management, fuel switching etc. as well as storage should be used. There is no requirement for mandatory storage levels.

The costs for developing a European strategic gas reserve of between one and two months consumption should be measured against the above mentioned supply alternatives/diversifications. Any new initiative in proposing strategic gas stocks need to take into account cost effective options and should be based on thorough economic and probability analyses. There is a significant risk that such an initiative would be counterproductive to establishing a competitive market. It is also unlikely that building strategic gas stocks (or not producing gas from existing reservoirs) consisting of two winter month's consumption would be a cost effective solution to achieve more security of supply.

Role of Long-term Contracts

ExxonMobil has engaged intensively in the debate on long-term contracts and appreciates that both the Gas Directive and the Security of Supply Directive acknowledge the importance of such contracts. The fact that elements of long term gas contracts are again being questioned is undermining investment confidence and is a matter of concern for ExxonMobil.

Long-term contracts exist to manage investment risk and are contributing to security of supply. As new more distant supplies are needed the capital investments required are likely to grow, long-term contracts are viewed as a mechanism to add certainty to the returns expected on the large capital sums provided by the investment community. If circumstances allow, other forms of contracts could be considered and do exist. Taking Europe's increasing import dependence into account, however, we believe that a major part of gas supplies for Europe will continue to be based on long-term contracts.

In line with this, financial institutions predict that long-term contracts will continue to be necessary in the future to secure non-recourse financing of gas development, storage and/or pipeline and LNG projects. Apart from supporting security of supply, the option to enter into long-term contracts provides additional choice to buyers. In an effective market, buyers should have a range of supply options, whether they are long-term, short-term or spot purchases. By entering into a mix of commercial arrangements the buyers are able to set their own level of supply security.

Priority Area 2. An Internal Energy Market that guarantees security of supply: solidarity between Member States

KEY POINTS:

- In our view markets will experience greater transparency and thus predictability as they mature. We believe that the development of a European Energy Supply Observatory to monitor short and long-term developments is not a requirement for markets to mature.
- We do not support the development of a European Centre for Energy Networks to focus on a single segment of the supply chain.
- A competitive single European gas market would be further supported by a single European gas grid, within a framework of harmonized regulatory regimes.
- ExxonMobil believes that interoperability can continue to be improved through joint discussions with stakeholders in existing forums without the creation of additional bodies. New inter-connections can develop when the appropriate market conditions exist for price signals, investment environment and permits and authorization procedures.
- There should be no mandatory requirement for gas storage reserves. Security of gas supply is best left for the market to determine the most efficient supply and demand alternatives or physical infrastructure investment required.
- The establishment and use of strategic oil stocks should be transparent to the market place, and strictly limited to use as a shield against serious public harm in the event of a severe supply disruption, and not as a price-management tool.

Interoperability

ExxonMobil stresses the importance of interconnections in establishing a functioning internal market for gas. Such interconnections are also important with respect to security of supply inside the EU 25. Interoperability of existing interconnections may improve with the application of a common framework across Europe which can be introduced through discussion in the existing Madrid Forum with all stakeholders. In this context, we do not support the development of a European Centre for Energy Networks to focus on a single segment of the supply chain.

A competitive single European gas market would be further supported by a single European gas grid, within a framework of harmonized regulatory regimes. Additionally, a range of technical activities such as those initiated by the Madrid Forum and currently being worked by EASEE gas will serve to identify and relieve constraints in the interconnections and improve interoperability.

Achieving a coherent regulatory framework both within the EU and at its borders is of great importance. We are of the opinion that care is required when trying to develop a coherent framework such that development is carried out without undermining the principle that there should be regulatory stability and predictability allowing for long-term planning of infrastructure and supplies. ExxonMobil welcomes the call for improved framework conditions for infrastructure investments, accelerated authorization procedures, and favorable investment conditions.

The existence of strong, competent and independent national regulators with the capacity to act coherently and in coordination across adjacent markets then becomes an important feature in creating the necessary conditions for investment and supplies. In this context, it is worth noting that regulatory gaps may be as problematic as regulatory overlaps when it comes to creating uncertainty, confusion and additional costs.

To this effect we support the two step approach in which the Commission plans to review the powers and independence of national regulators and in a second phase reviews an improved cooperation among national regulators.

With regard to the described regional approach, ExxonMobil sees the need for a more holistic and harmonized approach to avoid fragmentation of policy and regulatory developments. With the current lack of integration between national markets identified by the Commission as a shortcoming of the market, an identification of individual regions across Member States subject to particular regulatory focus may even perpetuate market segmentation. The challenge is to ensure that the requirements of the Second Gas Directive are fully and effectively implemented.

European Gas Market Development

Overall we see that the European gas market is developing on the right track. One of the ways of measuring this is the development of liquid gas markets. We believe the key indicators for liquidity development are volume to trade, the number of buyers and sellers and access to infrastructure which are all fundamental. We see information access, standard products and financial instruments as liquidity accelerators. Most of these indicators are showing an increasing trend, supporting our view that the market is developing and that the existing regulatory framework is appropriate.

Development of liquid markets is important, however, gas suppliers need assurance that their gas will have access to the market through the life of their project. Restricting capacity reservations or contract durations to the short term does not allow for this. Instead it may undermine the sanctity of existing contracts and increases perceived risk to investors, stifling the large investments required to develop new competitive gas resources.

We agree with the Commission that a liberalized and competitive market is conducive to security of supply and is essential for providing timely investment signals to industry participants. Some of these investment signals are provided through price movement and there are many factors that have a legitimate influence on prices.

Price movements through the introduction of liberalization provide the signals necessary to balance supply and demand and ultimately facilitate the development of a strong liquid market – liberalization does not provide low prices all of the time. The natural gas market remains subject to the effects of potential for substitution. Multiple end users and multiple suppliers seek to optimize their own cost and risk of energy supply. In doing this the end-users make choices, sometimes short-term choices, sometimes longer term choices, among the competing fuels they select for their particular application. Gas and oil are substitutable energy sources in the majority of applications in the long term; because of this connection the price of oil is a significant factor impacting gas prices. Often we hear that the prevalence of oil-indexation in long-term gas supply contracts in Continental Europe is the reason for the higher gas prices seen recently. The inference is that in the absence of these contracts and the direct contractual link to oil prices, gas prices would no longer be influenced by oil prices. We believe that this hypothesis is fundamentally incorrect.

Suppliers and end users should be open to negotiate which pricing mechanism and duration of supply they prefer, whether that be indexation to gas, where sufficient pricing information is available, or to competing oil products in the absence of adequate gas price information.

day (BCFD) of new LNG is needed in Europe [Annex Chart 3]. Most of this LNG is expected to come from the Middle East, North Africa, and West Africa. Significant new supplies of Russian pipeline gas are also required. We expect this Russian gas will come from new developments in West Siberia (Yamal) and the Russian Barents Sea.

- Diversity of supply, in terms of various fuels and geographies, is fundamental to security. Enacting the Energy Charter Treaty could augment security of supply for Europe.

Against this background we wish to make the following observations with regard to the "Six Priority Areas" in the Commission's Green Paper.

Priority Area 1. Energy for growth and jobs in Europe: completing the internal European electricity and gas markets

KEY POINTS:

- Europe requires a transparent, stable and predictable regulatory and fiscal regime to attract the levels of investment required. This can only be achieved through independent and competent national regulators working together within a clear framework supported by the rule of law.
- Strong, competitive markets are required that are based on the principles of freedom to participate in the market and freedom to negotiate appropriate market solutions.
- Long term contracts are essential to secure the large investments needed to bring additional energy supplies to Europe because of the long payback periods of the projects involved. Policy changes that may impact long term contract may have negative unintended consequences on such future investment decisions.
- ExxonMobil welcomes the call for improved framework conditions for infrastructure investments, accelerated authorization procedures, and favorable investment conditions.
- Strong, competent and independent national regulators with the capacity to act coherently across adjacent markets is preferred to the addition of a new single European Regulator.
- Overall we see that the European gas market is developing on the right track.
- The challenge is to ensure that the requirements of the Second Gas Directive are fully and effectively implemented and the investment environment is not inadvertently affected adversely.
- Development of liquid markets is important, nevertheless, gas suppliers need assurance that their gas will have access to the market through the life of their project.
- Gas prices in the near and long term will be influenced by oil prices due to the overlap in the broader energy market; unwarranted regulatory intervention during periods of volatile prices may have unintended consequences introducing price caps which will distort market signals for investment in additional gas supplies and/or infrastructure.

Regulation of the Internal Gas Market

To encourage investment, a stable and predictable regulatory regime is essential for potential investors to evaluate the level of risk and return that their long term projects are likely to experience.

The Commission's and Regulators' roles in these markets are crucial since their actions, or inactions, are viewed with importance by the potential future investors in Europe. Regulators should be independent and operate within a clear framework which is objectively based to facilitate the function of the law and avoids a prescriptive, explicit process based mandate. We support the Commission in considering both the internal European market and its position in a global environment. However, we would encourage awareness of the potential pitfalls of developing an excessive regulatory or bureaucratic regime which may actually deter investors and suppliers who may see diminishing opportunities within Europe compared to those offered in more favorable business environments elsewhere. Legislative and regulatory changes should only be developed and adopted based on a good understanding of their costs and benefits to the market and the impact on potential and existing investors, taking into account any potential unintended consequences. It is important to recognise that many projects for which investment is sought take several years to develop and can be in operation for 20+ years, new regulatory initiatives should be weighed carefully, recognizing the progress of existing legislation towards achieving its intended results, whilst maintaining a long term investment horizon.

ExxonMobil Response to the European Commission Green Paper "A European Strategy for Sustainable, Competitive and Secure Energy".

ExxonMobil[1] recognizes the European Commission's strategic objective to meet Europe's need for secure long-term, competitively priced energy while minimizing environmental impacts. We believe that an open, competitive market for energy both inside Europe and globally, 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.

ExxonMobil's detailed response to the Commission's Energy Green Paper is provided against the background of the global energy outlook that the company undertakes on an annual basis. The attached brochure "Tomorrow's Energy" provides a summary of our latest outlook. Further charts are also included in the annex.

Introduction: The Energy Outlook for the next twenty-five years

ExxonMobil's latest outlook shows energy supply/demand trends globally and for Europe that generally coincide with the European Commission's views.

KEY POINTS:

- Future energy demand will continue to grow despite energy efficiency improvements and reduced energy intensity (Expected average energy demand growth for Europe: 0.8% per year between 2000 and 2030) [Annex Chart 1].
- Future energy policy must recognize the importance of oil and gas as they will remain the primary energy sources for at least the next two decades providing approximately 60% of Europe's energy requirement in 2030 [Annex Chart 1].
- Fortunately, the European Economic Area is home to the fourth largest oil and gas production area in the world, exceeded only by Russia, the US and Saudi Arabia. The EU & Norway represent the fourth largest producing area in the world (after the US and Russia) in terms of accessibility to the international oil companies [Annex Chart 2].
- The overall oil and gas resource base will be sufficient to meet the increase in oil and gas demand, assuming that investments in developments are made in a timely fashion. Access to resources, not existence of resources is the key point.
- The International Energy Agency estimates that approximately $6 trillion in oil and gas investment will be needed for the period 2004 through 2030 to meet the world's growing energy demand. To help meet this need, ExxonMobil is investing at record levels. Over the last five years, we have invested $74 billion. Of this amount $14 billion has been invested in Europe alone, which is about as much as our investments in Africa, and twice as much as in Russia and the Caspian, even though the latter are more prolific upstream provinces.
- Nevertheless, meeting future energy needs will require a broad range of energy types. Wind and solar energy are expected to have a double-digit annual growth, although they are likely to provide only about 2% of Europe's primary energy requirements by 2030, up from ~0.1% in 2000 [Annex Chart 1].
- The best guarantee of energy security over time is an effectively functioning open and competitive free market which provides appropriate incentives to attract diverse supplies, supported by providing a stable fiscal and regulatory regime
- Long-term energy self-sufficiency for Europe is neither realistically attainable nor a necessary objective for an effective energy policy. Of Europe's total demand for natural gas in 2030, more than 75% will come from imported supplies; however, 70% of proved global gas reserves lie within economically transportable distance of Europe[2]. Geographical flexibility for importing regions like Europe will increase as discoveries in Norway, Qatar, Russia and offshore West Africa have widened the range of potential suppliers. Furthermore, the oil and gas industry's investment in technology has reduced both the cost of moving gas by pipeline over long distances and the cost of converting gas to liquefied natural gas (LNG) and shipping it over long distances. To help meet future European supply requirements, we expect that up to 20 billion cubic feet per

[1] The term ExxonMobil is used in this submission for convenience and simplicity and as an abbreviated reference to specific affiliates and subsidiaries of Exxon Mobil Corporation.
[2] "World Energy Outlook" International Energy Agency, 2001

About EWEA

EWEA is the voice of the wind industry – actively promoting the utilisation of wind power in Europe and worldwide.

EWEA members from 40 countries include over 300 companies, associations and research institutions. These members include manufacturers covering 98% of the world wind power market, component suppliers, research institutes, national wind and renewables associations, developers, electricity providers, finance and insurance companies and consultants. This combined strength makes EWEA the world's largest and most powerful wind energy network.

The EWEA Secretariat is located in Brussels at the Renewable Energy House. The Secretariat co-ordinates European policy, communications, research, and analysis. It manages various European projects, hosts events and supports the needs of its members.

EWEA is a founding member of the European Renewable Energy Council (EREC), which groups the 8 key renewables industries and research associations under one roof, and the Global Wind Energy Council (GWEC).

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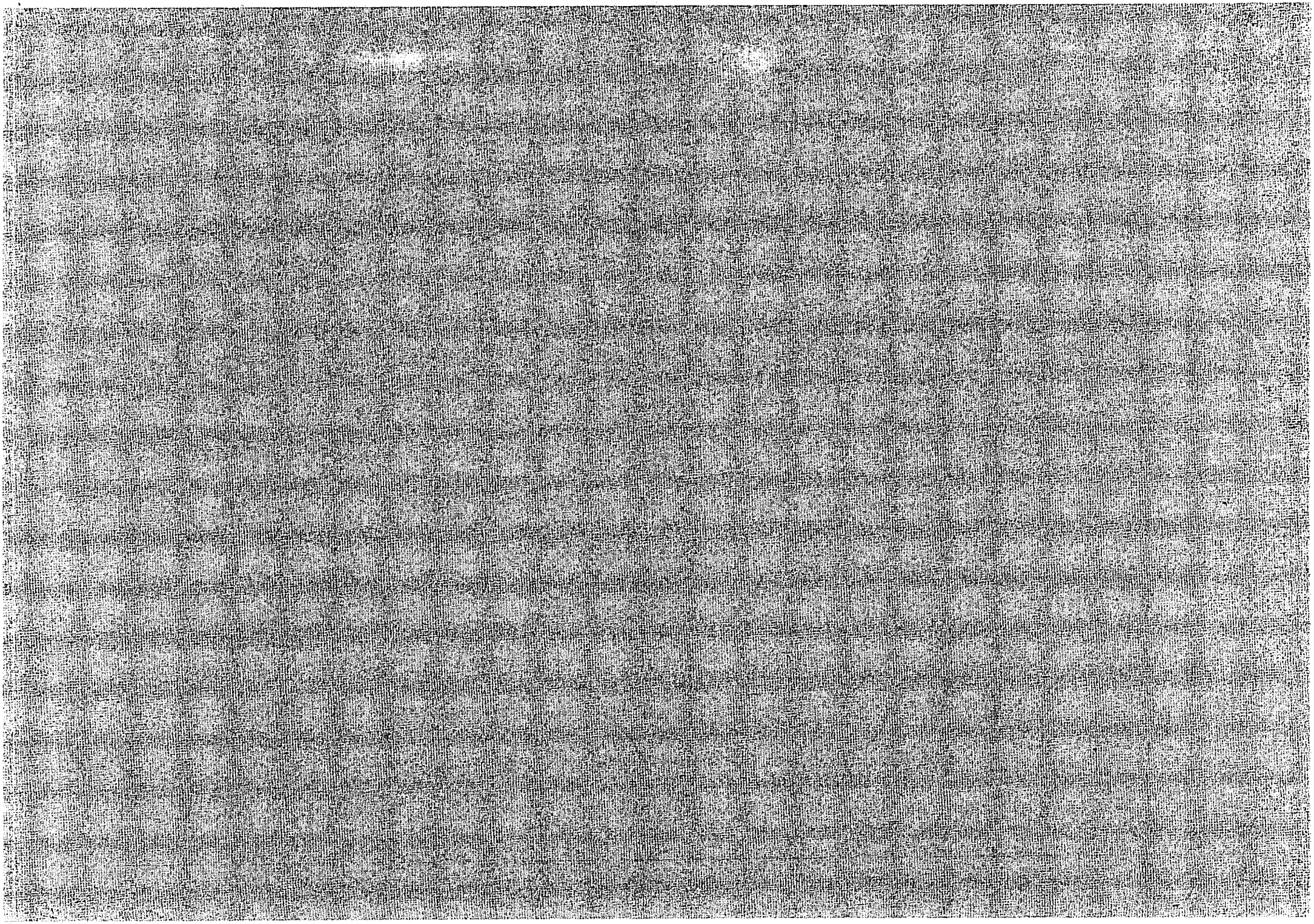


3.6 *External policy*

Should there be an external policy on energy, to enable the EU to speak with a common voice? How can the Community and Member States promote diversity of supply, especially for gas? Should the EU develop new memberships with its neighbours, including Russia, and with the other main producer and consumer nations of the world?

- **The Green Paper lacks an analysis of the global energy market**, and of how the EU as a player can (or cannot) act within it. Such an analysis **has to encompass many different aspects, not only how to bargain fossil fuel resources.**

- It appears that, under the current energy supply model, **independent negotiations from the Member States are less effective than if the EU could speak with a single voice, particularly in comparison with other "giant" consumers**, such as the US, India or China. Therefore, it is a field in which external diplomacy could work closely, also taking into account that the fossil fuel energy suppliers are more or less common for many EU countries.

- Still, **it is important to repeat that such "energy diplomacy" is intended to reduce the pains of the way we secure energy today rather than to remove the main structural problems**, which at the end of the day is growing dependence. In this light, the proposals appearing in the recent document "An External Policy to serve Europe's energy interests" do not have the correct focus: almost every measure aims at maintaining the *status quo* in terms of energy imports from third countries, rather than addressing the structural problem of our energy supply. Recent actions such as the Energy Community Treaty signed with some Eastern European countries, although important, cannot put aside the aspects of facilitating RES growth and border trade, as well as energy efficiency measures and the protection of the environment. The diversification of energy imports by product and country does not constitute a solution, as there are not many diversification possibilities if fossil fuels remain the preferred source. In the same manner, the lion share of the funds from the EIB, EBRD and other IFIs, should be directed towards renewable energy technologies.

- It is important **for RES and RUE priorities to be incorporated into bilateral discussions with third countries / trade blocks**, for instance Asia, Mercosur, Canada, China and others. The RES sector has to be formally consulted through existing platforms to make sure that the key points are covered into the negotiation processes.

- **The EU should continue to push hard to achieve full market access to environmental products within WTO negotiations, as well as ongoing and future ETA negotiations (e.g. Mercosur, GCC, TIEA).** Specifically, EWEA supports the inclusion of wind energy in the list of environmental goods that should be subject to reduction of tariffs and non-tariffs barriers. **The EU should secure full compliance on existing WTO rules on non-discrimination measures.**

- EWEA believes that **the EU should play a more active role in spreading a sustainable energy model to third countries as part of its energy diplomacy, that is, in reinforcing the visionary role that seems to have lost in recent energy policy dossiers.** Our model – and this of course implies that we have to apply it to ourselves in the first instance – should be "exported" to the developing and threshold countries. Countries such as China, India and Brazil are consuming large amounts of fossil fuels, and therefore climate change policies will not succeed unless they change their energy consumption and production patterns. Other problems related to fossil fuel consumption, such as air pollution in large cities, pollution of (sometimes very scarce) water resources, health problems, etc. cannot be ignored and will only be solved through the use of more RES in energy production.

- Europe is a leader in RES technologies. Increasing their global deployment will benefit the EU in terms of **employment and economic prosperity.**

budgets are related to renewable energy, in contrast with more than 50% for conventional.

- Also, Community funding for RES has decreased since the 4th Framework Programme; we believe that this is an unacceptable biased treatment and that renewable energy sources should get a fair share in European and National R&D programmes. **EWEA encourages the European Commission and the European Council to take up the Parliament's decision to dedicate 2/3rds of the non nuclear budget (25% of the total energy budget) to renewable sources of energy and to energy efficiency measures.** The first table below reflects the percentages that the 6th Framework Programme on R&D is going to devote to different energy sources and the effect that the European Parliament's 2/3rds proposal would have on the budget. The second compares the amount of resources allocated in the FP5 and FP6 (first half) in the non-nuclear energy bid, reflecting the decrease of funds devoted to wind.

- **Effective cost reduction of renewable energy technologies must be achieved through a balanced combination of implementation and innovation.** Without R&D, the learning experiences from implementation will not be fully exploited, and vice-versa. Sufficient R&D budgets and efforts should be guaran go hand-in-hand with a stable implementati to reap economies of scale.

- **The wind energy industry has identified**, i ument *"Prioritising Wind Energy Research: Research Agenda for the Wind energy Se* **main areas for future development and t cial support that it will require.** This an documents for other renewable technologie **be used as a basis when deciding how to existing funds** among different priorities.

- **Also the technology platforms** that have b ated for various RES technologies will play a tant role in the identification and developme R&D efforts. Such platforms **require a pat port from the European Commission,** whic regard them as an opportunity to guide the process in a certain direction. **Synergies** such platforms **have to be exploited,** althc clear that, at this stage, **the problems the are very different and thus, they should re dependent.** The proposed "Strategic Energy ogy Plan" could assist in achieving better c tion and complementarities, provided that b representation of the different sectors is en

Expected annual expenditure FP7 (2007-2011)	Million euros, annual figures
Total budget	2400 million euros
Energy research priority	920 million euros
Nuclear energy research	580 million euros (63% of energy budget)
Non-nuclear energy research	340 million euros (37% of energy budget)
Proposed 2/3rds towards RES and RUE	226 million euros (25% of energy budget)

SOURCE: Response to written question from MEP Mechtild Rothe,

Technology	FP5 – non nuclear energy (M euros)	FP6 (first half) sustainable energy systems (M euros)
PV	105	45
Biomass	140	30
Wind energy	**70**	**10**
Other (geothermal, STH...)	65	40
Hybrid, energy efficiency, integration	170	90
Total RES	550	215

ruary 2004, little success has been achieved until now, with many Member States not on track to curtail its GHG emissions to the agreed levels. This ambiguity is providing market actors with a wrong signal and delayed investments in the necessary environmental improvements. **EWEA proposes to immediately adopt more ambitious GHG reduction targets for 2020 (30%) and 2050 (80%).**

- The question of maintaining the competitiveness of the European industry *vis-à-vis* industries producing in countries with less demanding environmental standards has caused considerable concern and needs to be addressed carefully. However, some basic arguments should be borne in mind. First, the European industry does not only compete with other global market players in terms of quantity; but also competes, and should compete, in terms of quality, product differentiation and technology content. Therefore, **environmentally friendly products go hand-in-hand with other advantageous characteristics that can help the EU industry gain global market leadership.** In addition, there are tools which can help the European Commission to fight unfair competition: the most clear is the recently approved **"eco-design" Directive** [EC/2005/32], which establishes the framework for the setting of eco-design requirements for products that use energy, both European and imported. **The translation of this framework law into concrete plans for different groups of products should be a high priority for the EU** and will constitute a key tool to help our industries compete both internally (among Member States with different standards) and with industries from the rest of the world. Also the announced EU Action Plan on Sustainable Consumption and Production, with compulsory targets, could be extremely useful.

- EWEA supports the **EU Emissions Trading Scheme** as a potentially powerful tool to meet the agreed targets for GHG emissions, but acknowledges that it has some limitations. In particular, its current design does not **guarantee *per se* the levelling of the playing field between polluting and clean technology; it cannot substitute environmental taxes / CO_2 taxes and will not secure the internalisation of the majority of external costs.** In the light of recent Community reports, such as the first independently verified emissions data, released in mid-May this year, it is evident that there has been an over allocation of permits during the first period, a situation that should be solved in the short term with the second NAPs under discussion. EWEA believes that the ETS should include more sectors in the second stage (2012 onwards), such as aviation and road transport. Binding measures for sectors not included in the Directive need to be shaped.

- Finally, and in relation to the question of *"what further action is required at Community level to achieve a longer term secure and predictable investment framework for the further development of clean and renewable energy sources in the EU"*, the premises that have been articulated in previous paragraphs, namely: **the convenience of setting clear renewable energy targets for 2020, including sectorial targets** and keeping up with political support (at member state and EU level); the approval of reliable tariffs for RES as long as they need it, together with stable political framework conditions; finally, a continued effort on avoiding administrative and other barriers that hinder RES expansion. These are necessary preconditions for future investments in the renewable energy sector.

3.5 *Innovation and technology*

What action should be taken at Community level to ensure that Europe remains a world leader in energy technologies? What instruments can best achieve this?

- EWEA greets the Green Paper recognition that *"renewable energy sources research has greatly contributed to diversify energy supply in Europe (...) and that the magnitude of the challenges ahead requires increased efforts"*, as well as the statement that *"long-term commitment in funding is needed"*. Still, most of the R&D effort goes to conventional energy sources, as the "Communication on the share of RE in the EU" fairly points out[11]. According to it, **only 10% of Government energy R&D**

[11] Page 38 of the English version.

self-sufficiency, by providing large-scale power to different countries. For this to happen, some issues need to be solved, for instance those related to grid extension and reinforcement and to R&D in some fundamental areas. In general terms, **a European policy for offshore wind energy is needed**. Such an idea was already put forward by the European Commission in its Communication on the share of RES in the EU two years ago [COM (2004) 366]. The issue is not addressed in the Green Paper, although important debates that have taken place since then, e.g. the Egmod Process, the Copenhagen Strategy and, more recently, the "Green Paper on Maritime Policy: A European Vision for the Oceans and the Sea" [COM (2006) 275].

- The European Commission should build upon the existing informal cooperation between Member States from the Egmond-process and **the conclusions of the Copenhagen Strategy for an effective deployment of the offshore wind energy technology. It would form a good starting point for a European policy for offshore wind**. Such conclusions include the "one-stop shop office approach", the convenience of defining division of responsibility among different layers of the public administration in Member States, the need for long term grid planning, the importance of more efficient consenting procedures which build on past experience and are in proportion to the scale of the project, the need to ensure good quality assessments, and the establishment and use of marine spatial planning instruments to reach optimal site selection.

- Finally, it is difficult to grasp what is meant by **introducing "a minimum level of the overall EU energy mix originating from secure and low-carbon energy sources"[8]. The term is undefined and targets already exist for renewables** for 2010. These should be followed up by 2020 renewable targets with sectorial targets for electricity, heating/coo and transport.

3.3 *Solidarity*

Which measures do we take at Community leve prevent energy supply crises from developing, a to manage them if they occur?

- **A drastically increased effort to introduce lar scale, indigenous renewable energy, in combi tion with energy efficiency measures is the o way to reduce supply crises on a permanent ba** Measures such as reviewing Community legislat on oil and gas stocks or improve early warning s tems can at best reduce their impact, but will ne succeed in avoiding them, because they do not g the root of the problem.

3.4 *Sustainable development*

How can a common European energy strategy b address climate change, balancing the objecti of environmental protection, competitiveness a security of supply? What further action is requi at Community level to achieve a longer term sec and predictable investment framework for the ther development of clean and renewable ene sources in the EU?

- Renewable energy sources are a major source CO_2 avoidance and could strongly contribute towa fighting climate change. Today, wind power instal in Europe already saves over 60[9] million tonr of CO_2 every year. By **2010 wind energy will sa app. 110 million tonnes annually, the equival of more than 30% of the EU's total Kyoto Proto obligation.**[10]

- Despite the ratification of the Kyoto Protocol in F

[8] Page 9 of the English version.

[9] The total 40,505 MW of wind capacity installed as of end 2005 will avoid the emission of app. 67 Mt CO_2/year.

[10] The EU Kyoto commitment of reducing greenhouse gases by 8% is equal to a reduction of 355.8 Mt CO_2 equivalents between 1990 and 2010. By 2C in terms of capacity and power generation EWEA projects that wind power will provide an annual electricity generation of 167 Terawatt hours (T equivalent to 5.5% of European electricity demand. This electricity by wind power will save annually 109 million tonnes of CO_2 representing a cumula CO_2 savings of 523 million tones (period 2001-2010)

- **Removing unproductive subsidies to mature fossil and nuclear technologies and applying the "polluter pays principle"** to energy markets, as established in Article 174 of the Treaty, **would go a long way to level the playing field and to increase energy investments in Europe.**

- **Correcting market prices so that they incorporate all costs and benefits related to the different technology options is the best guide to rationalise investment decisions.** Such rationalisation includes environmental impacts and use of common natural resources, but also other issues such as oligopolistic behaviour, asymmetric information, non-market protection, etc. Some precedents exist, such as the ExternE project co-funded by the EC under the 5th Framework Programme, but additional and more coordinated efforts should be made, with the ultimate goal of reaching a commonly-accepted set of values to be incorporated into decision-making regarding true costs and prices of the various technology options.

- Finally, the proposition for the **"Strategic EU Energy review" to take place on a regular basis can be a good tool** to ensure that the above-mentioned areas are progressing at adequate speed. For this to happen, the reviews will need to introduce some sort of penalty and correction mechanisms when the objectives are not being met and to **make sure that RES and RUE priorities are taken into account.** In practical terms, this could be achieved by means of a formal link between the Strategic Review and the RES Road Map, for instance through the incorporation of a chapter on RES development in the reviews, which foresees the implementation of additional measures if they are lagging behind.

3.2 *Diversification of the energy mix*

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

- It seems obvious that the only way to ensure that Europe promotes climate-friendly diversification of energy supplies is to **dramatically change the current energy mix towards a greater use of renewable sources.** In this light, it is difficult to understand why the European Commission has reduced the importance of renewable energy sources in this text, compared with the 2000 Green Paper, as explained in section 2. What is more: this Green paper does not introduce anything new in the discussion; but sets back some of the issues that had been agreed in previous documents and agreements.

- **EU targets beyond 2010 are needed** to maintain investor confidence and signal direction to policy makers, and civil society.

- In that context, **EWEA welcomes the proposal of a "Renewable Energy Roadmap" that includes a long-term commitment to develop and install renewable energy sources but sees no concrete proposals yet.** A reference to the agreement reached by the European Parliament in April 2004 on having at least 20% renewables share by 2020 should have been included as a starting point for the debate.

- EWEA believes that **the overall long term target of at least 20%[7] renewable energy in 2020 should be accompanied by sectorial targets for electricity (35% by 2020), heating** (25%) **and biofuels** (12%).

- EWEA is in favour of **making current national energy targets (2010) mandatory and of establishing mandatory national renewable energy targets for 2020** as an effective means to foster and maintain investors' confidence. The announced *"active programme with specific measures to ensure that existing targets are met"* (page 12) needs to take this into account; otherwise, the incentive to achieve them is substantially reduced. An overall primary renewable energy target for 2020 is of little use, if not complemented by sectorial targets for electricity, heating/cooling and transport.

- As it has been correctly pointed out by the Green Paper, **offshore wind can make a fundamental contribution to the overall goal of increasing EU's energy**

[7] Equivalent to 25%, if we assume the substitution principle.

duction and trading activities takes place and that enforcement measures can be taken if it is not the case. Such an action would imply the reform of EC Directives 54/2003 on the electricity market and of 55/2003 on the natural gas market. Prior to that, the EC has to make sure that all Member States at least implement, in spirit as well as in practice, what has been agreed upon until now.

- Focusing on the electricity market, **EWEA welcomes the Community's efforts to create a well-functioning internal Electricity Market** (IEM); its development **should reflect the EC's intention to double the share of electricity from renewable energy sources by 2010.**

- **Renewable energy sources, in particular wind energy, will strongly contribute to improving competition within the internal electricity market and to reducing electricity prices**, to the benefit of the consumer. The cost of producing electricity from renewables is known and fixed from the initiation of the project, and therefore remove the cost-uncertainty element from energy decision making. **These effects are being felt already**: for instance, on the German electricity exchange (EEX), wind energy is reducing electricity prices due to its low marginal cost of production; the same pattern is observed in Denmark and in Spain, where the participation of wind energy in the market is having an important incidence on deviation and tertiary management.

- Another key issue is **the reinforcement of interconnection capacity**, still very limited and, in some cases, almost non-existent. **Cross-border interconnection between Member States** is a top priority as a means to increase effective competition among companies, often acting in monopolistic ways.

- In turn, grid reinforcement and extension plans have to accommodate the further development of renewable electricity generation. **The existing guidelines for European energy networks – TEN-E guidelines – could provide a useful framework for upgrading the European grid infrastructure** which was characterised by underinvestment during the 1980s and the 1990s. Also **the nascent trans-national grids must be prepared to absorb onshore and offshore wind power**, and the TEN-E can provide a vehicle to focus on this area; the Priority Interconnection Plan which is under development should address these aspects. The potential for public private partnership should be fully investigated.

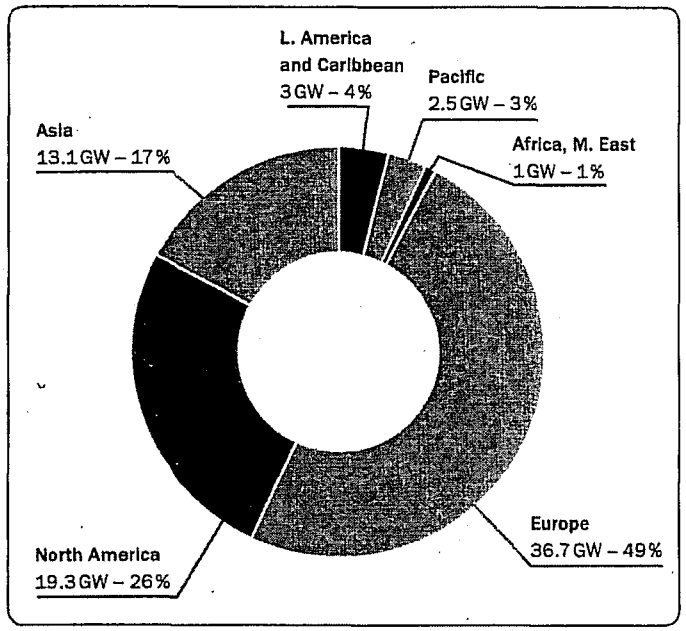
- The benefits of distributed generation e.g. in terms of network losses and reduced need for grid reinforcement, must be recognised. EWEA proposes that **electricity from renewable sources obtains priority access to the existing European interconnection capacity system in order to improve international renewable electricity trade.** Potential small RES traders will have no opportunity if existing barriers to competition are not removed. The guarantees of origin for renewable electricity, as stated in EC Directive 2001/77/CE, will help to make such trade easier in terms of avoiding double-counting; but only to the extent that certain internal market conditions between Member States exist.

- EWEA supports the **establishment of a European energy regulator as a means to ensure the creation of a well-functioning liberalised energy market.**

- In relation to the proposed European Grid code, as expressed in the questionnaire, it is clear that the numerous and frequently changing **codes often contain overly costly and challenging requirements for the wind energy sector.** In addition, they are **developed** in a highly non-transparent manner **by vertically-integrated power companies, with little or no involvement of the wind energy sector.** In EWEA's view, costly technical requirements should only be applied if there is a true technical *rationale* for them and if their introduction is required for reliable and stable power system operation. Grid requirements depend crucially on the nature of the individual transmission systems, so unless an actual European grid is developed, it is difficult to see how a common grid code for wind energy can be written. However, EWEA is positive towards formulating general guidelines to avoid the current situation of numerous, uncoordinated and frequently changing requirements. We are also positive towards a more general European grid code, formulated by a future European energy regulator, in cooperation with TSO's and the wind energy sector.

- As Chart 4 shows, **the global potential for European technology exports is increasing.** While the European market will continue to be the largest market for wind energy technology in the coming five years, other regions of the world, in particular North American and Asia, are becoming increasingly interested in wind power as a hedge against volatile and high fuel prices, to reduce import dependence and to meet growing demand for electricity.

Chart 4: Regional breakdown of the projected capacity over the next five years, showing how wind energy will become a truly global business:



SOURCE: GWEC

3. Priority areas

3.1 ***Competitiveness and the internal energy market***

Is there agreement on the fundamental importance of a genuine single market to support common European strategy for energy? How can barriers be removed? What new measures should be taken to achieve this goal? How can the EU stimulate the substantial investments necessary in the energy sector? How to ensure that all Europeans enjoy access to energy at reasonable prices, and that the internal energy market contributes to maintaining employment levels?

- EWEA believes that **the strategy to ensure that all Europeans enjoy access to energy at reasonable prices should rely on three pillars:** (a) **increased competition and transparency** in the energy markets (b) the **increased share of indigenous clean renewable energy sources**, which also have a positive impact on employment and international competitiveness and (c) achievement of the **substantial cost-effective energy savings** that the European Commission[5] has already identified.

- **A pre-requisite for the success of any new European energy strategy is the achievement of effective competition in energy markets.** Both the Green Paper and the Communication from the Commission: *"Report on progress in creating the internal gas and electricity market"* [COM (2005) 568 final] recognise the relative failure in achieving it so far and list a number of shortcomings with which EWEA strongly agrees (lack of integration of the national markets, absence of price convergence, barriers to entry, inadequate use of existing infrastructure, insufficient infrastructure, high degree of concentration of the industry[6], etc.). Such distortions **discriminate against renewable energy sources** and other new entrants in the energy markets.

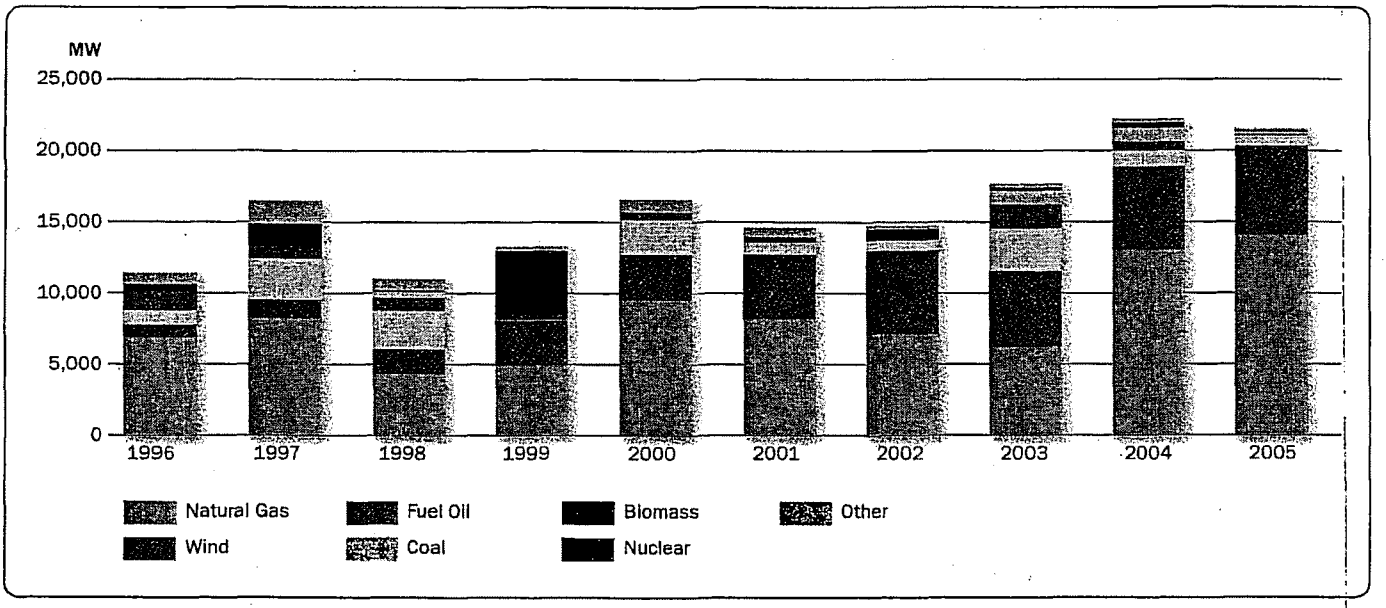
- A priority line of action to attain effective competition is to **ensure that full legal and ownership unbundling between transmission / distribution, pro-**

[5] 20% compared with current levels, according to the "Green Paper on Energy Efficiency: or doing more with less" COM (2005) 265 final

[6] [COM (2005) 568 final], page 2 of the English version.

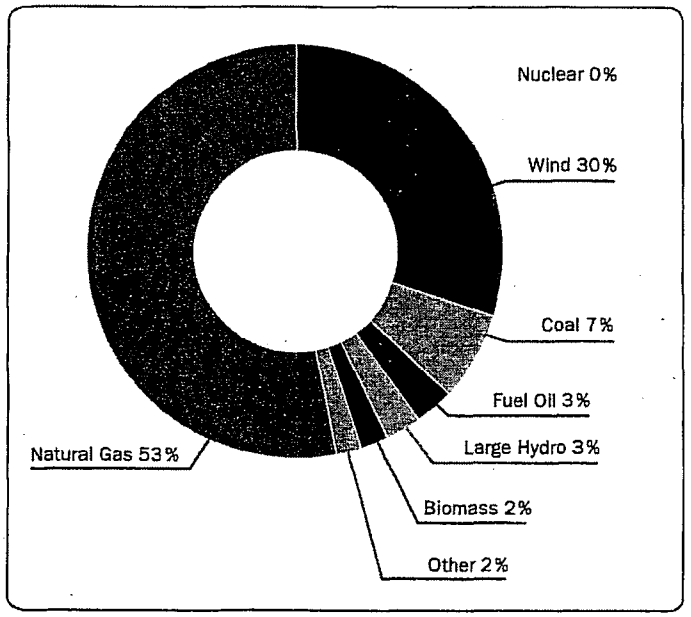
of EU's electricity demand, the technology is already the second largest contributor to economic activity and employment in power manufacturing.

Chart 1: New installed capacity of different electricity technologies in the European Union during the decade 1995-2005:



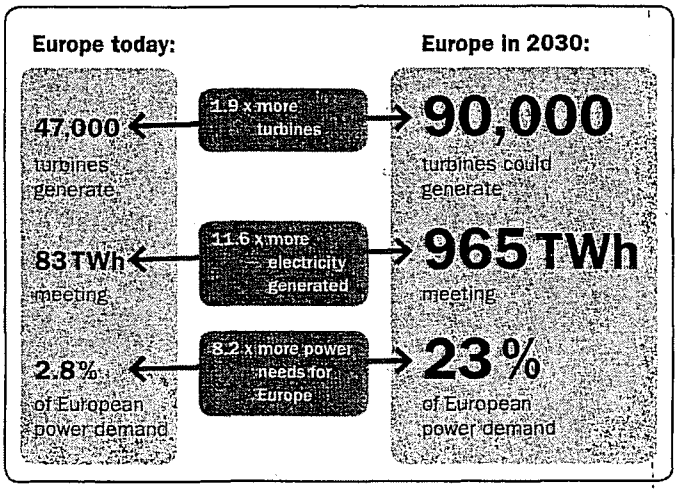
SOURCE: Platts/EWEA

Chart 2: New installed capacity 2001-2005 (EU-15)



SOURCE: Platts/EWEA

Chart 3: Approximately 3% of EU's electricity consumption is met by wind power today. As chart 3 shows, that share could increase to 23% in 2030 (equal to 32% of today's consumption) by doubling the number of turbines operating in Europe today.



SOURCE: EWEA

to compete with China, India and the US for the remaining fossil resources. Europe also needs this common strategy to allow the exploitation of the great offshore wind resource for the benefit of all citizens of Europe. The creation of a single electricity market across 25 Member States would allow all of Europe to access the renewable, free fuel, sea-based wind resources.

- In the light of the recent failure to obtain wide public support for the European Constitution, we believe that **an energy policy should focus on those areas where there is broad Member State consensus and a large degree of public support.** This opinion is shared by the other Brussels-based renewable energy associations under the European Renewable Energy Council (EREC) umbrella and by the European Energy and Transport Forum.

- Areas with a clear consensus for priority by Member States and the general public are: energy efficiency; renewable energy sources; distributed generation; energy infrastructure and cross-border trade; electricity and gas liberalisation and competitive markets; energy diplomacy. In this context, it is worth highlighting the Eurobarometer EU-wide survey called: "Attitudes towards energy" from 24 January 2006, which concluded that almost **80% of EU citizens support renewable energies as their preferred alternative to high-priced oil and gas.** To respond to the energy challenges, developing the use of nuclear power is supported by 12%, confirming the results of an earlier Eurobarometer on nuclear waste. EWEA believes that **the collective attitude of EU citizens is insufficiently reflected in the Green Paper.**

- **The Green Paper needs to make a more explicit link with the Lisbon and Gothenburg Agendas and with the competitiveness, employment and environmental objectives** that appear there and in the Treaty. Dependence on external energy sources does not only affect the security of supply; it also imposes uncertainty to markets, makes investments more difficult and deteriorates the competitiveness of the industry. In contrast, indigenous renewable resources are an advantageous alternative of income and jobs in Europe, and one of the few energy areas in which the EU can sell instead of purchase in world markets. Renewable energy sources, and in particular wind energy, are a significant and rapidly increasing source of employment in Europe[3]; annual investment was approximately 7 billion in 2005, and the European wind turbine manufacturing industry has an 80% world market share. What is more: the sector has a strong position in the most promising markets, such as China, India and the United States, where much of the new energy capacity will be built in the coming decades.

- **Renewable energies in general, and wind energy in particular, are large-scale energy solutions: wind energy represented 32% of all electricity generating capacity installed in the EU in the past five years according to figures from Platts;** only gas capacity has exceeded wind energy in terms of installation. In 2005, 19% of the electricity needs for Denmark were covered by wind, 8% in Spain[4] and 5% in Germany. The share is growing in other countries and will be more so if current administrative and grid connection barriers are alleviated. Wind energy should have a central role to play in the European energy strategy which hopefully follows from this debate as a short, medium and long term solution to Europe's energy supply challenges.

- Wind energy is already one of the largest contributors to European employment, investment, research and economic activity in the electricity sector. As shown in Chart 1, over the past ten years, **wind energy was the second largest contributor to new electricity generating capacity in the EU,** only surpassed by gas. Over the past five years, 30% of all installed capacity in the EU has been wind energy (Chart 2). While wind energy today meets some 3%

[3] The wind power sector currently employs around 64,000 people in Germany (BWE, 2006); around 21,000 in Denmark (DWEA, 2006) and 35,000 in Spain (AEE, 2006).

[4] Global figures for large countries like Spain or Germany disguise important contributions of wind at regional levels. For instance, in the well-interconnected Spanish regions of Navarre and La Rioja, the supply of electricity with wind is of 50% approx. every year.

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 a competitive advantage and contribute positively to the increased welfare of our citizens.

This position paper has been divided into two parts:

- **Section 2** provides EWEA's overall comments to the Green Paper, highlighting the general aspects which, in our opinion, best reflect the nature of the problem and the possible solutions to it, and the areas where we believe improvement or stronger commitments need to be made.
- **Section 3** relates to the specific questions raised in the Green Paper for the six priority areas identified.

2. Overall comments

- In EWEA's view, **the Green Paper** *"A European Strategy for Sustainable, Competitive and Secure Energy"* **includes all the right elements in the description of the challenges** that Europe is facing in the new energy era: urgent need for investment, increasing dependency on fossil fuels, rise of global demand for energy, climate change, non-competitive energy markets, etc. Indeed, this discussion is not new and most of such elements were already present in the 2000 Green Paper: *"Towards a European Strategy for the Security of Energy Supply"* [COM (2000) 769 final]. The debate died at the time; this new attempt must succeed to ensure long-term economic growth, energy supply stability and to overcome the apparent conflict that still exists between a truly European approach and the diverse interests and competences of Member States.

- **Renewable energies within the EU energy strategy should be kept a political priority.** The statements in favour of RES are more hesitant now, compared with the 2000 document in which the executive summary stated that (...) *"with regard to supply, priority must be given to the fight against global warming. The development of new and renewable energies (including biofuels) is the key to change. Doubling their share in the energy quota from 6 to 12% and raising their part in electricity production from 14 to 22% is an objective to be attained between now and 2010. (...). Only financial measures (aids, tax deduction and financial support) would be able to buttress such an ambitious aim. One way which could be explored is that profitable energies such as oil, gas and nuclear energy could finance the development of renewable energies which, unlike traditional energy sources, have not benefited from substantial support"* (pages 4 and 5 of the English version). In the 2006 Green Paper, the European Commission's renewable energy ambitions seem lower, with the only novelty being the proposal of a Renewable Energy Road Map for which no concrete details are given yet. It is particularly unfortunate that the European Commission does not take, as a starting point for discussion, the targets proposed by the European Parliament of at least 20% renewable share by 2020, to be translated into sectorial targets for electricity, heating/cooling and biofuels.

- **EWEA would have liked to see more visionary content in relation to the future energy supply structure.** Unfortunately, most of the actions outlined in the Green paper are based on the current energy model which is the cause of the problems it describes. Being a debate document, we would have expected more emphasis on providing long-term tangible solutions to challenges such as import dependency, fuel prices and environmental problems. Only indigenous renewable energy sources combined with efficiency can address these challenges. **A visionary strategy would look beyond the current energy model towards one in which renewable energy sources are combined with energy efficiency measures and technology export measures.** Measures aimed at improving the dialogue with oil and gas rich nations to reduce the impact of volatile fossil fuel prices on the EU economy are clearly necessary, but should not part us from this long-term strategic objective.

- **Europe needs a common energy strategy to ensure real competition in the internal energy market and to create sufficient critical mass to allow Europe**

1. Introduction

The European Wind Energy Association (EWEA) welcomes the debate and public consultation for a sustainable, competitive and secure energy launched by the European Commission in the framework of its new Green Paper.

The **dramatic increase in fuel prices and the economic and geopolitical risks associated with imported fuels have moved to the top of the political agenda.** These are not fleeting issues; unless Europe changes direction, its current energy model will lead it to import an ever growing share of energy at unpredictable (but most likely higher) prices from unstable regions in fiercer competition with the rest of the world. The world has a growing appetite for energy and emerging countries such as Brazil, India and China, will increase pressure on the already high energy demand from developed countries. Forecasts on oil and gas prices are often divergent and lag behind reality. Oil is trading at more than $70/barrel, Goldman Sachs believe oil prices could reach $105/barrel, while the International Energy Agency (IEA) says crude oil imports will cost $57/barrel in 2030. Europe simply does not stand a chance to emerge as a winner of the future global energy game unless it puts large scale renewable energy sources at the core of its energy strategy. The EU has never been, and never will be a net exporter of fuels, but it stands a good chance of being the world's largest exporter of renewable energy technology.

Meanwhile, the negative effects of climate change and pollution are becoming ever more apparent: the rise of world temperature is no longer a question of "if" but a question of "how much" and "by when", as clearly pointed out by the Intergovernmental Panel on Climate Change, widely taken as the "consensus of the scientists". Climate change is also disturbing the water cycle, which has dramatic consequences for electricity production patterns. It is painfully clear that the level of greenhouse gases in Europe is incompatible with the modest short-term targets we have committed ourselves to (a 2°C increase of average world temperature). A stable climate is not compatible with our current fossil-fuel reliant economies. More local impacts – such as the increase of particulate matter, SO_2, ozone and NO_x pollutants – are adversely affecting the quality of our lives, especially in urban areas, where 76%[1] of the European citizens live.

In the old structure of utility monopolies, the system was always securing excess generating capacity, knowing that the costs of new build would be passed on to consumers through utility mandates from governments; as a consequence the wind energy sector and other renewable technologies have spent the past two decades fighting to gain access to a system that did not really need additional generating capacity, but which was justified on environmental grounds. This situation is rapidly changing and **spare electricity generating capacity is at a historical low in Europe**: in the first thirty years of this millennium, 365 GW of electricity generating capacity will be retired in Europe and an additional 400 GW[2] will be needed to satisfy the growing power demand. This means that the capacity required in the medium to long term exceeds the total electricity generating capacity operating in Europe today, demanding a vast amount of investment – around one trillion euros according to the Green Paper – in new plants, transmission and distribution infrastructure. As a complement, **there is a need for a complete overhaul of the European grid infrastructure** to comply with trading requirements as well as with the new East-West dimension and new innovative technologies ("smart grids").

The conjunction of these circumstances should be regarded as a historical opportunity for Europe to make a dramatic change in its approach to secure its energy supply, rather than as a structural disadvantage for the EU economy. In EWEA's view, the main objective of an EU energy policy, as proposed by the Green Paper, should be to use the opportunity created

[1] 74.6% in 2000, and the forecast is a growth of 0.3% per year until 2015 (Source: Global Environment Outlook)

[2] IEA (2005): World Energy Outlook, 2004.

Background

In March 2006, the European Commission issued a Green Paper entitled: "A European Strategy for Sustainable, Competitive and Secure Energy". EWEA participated in the public consultation of the Green Paper and publishes its recommendations to the European Commission on priority areas in this Position Paper.

Table of Content

A policy briefing by EWEA - September 2006

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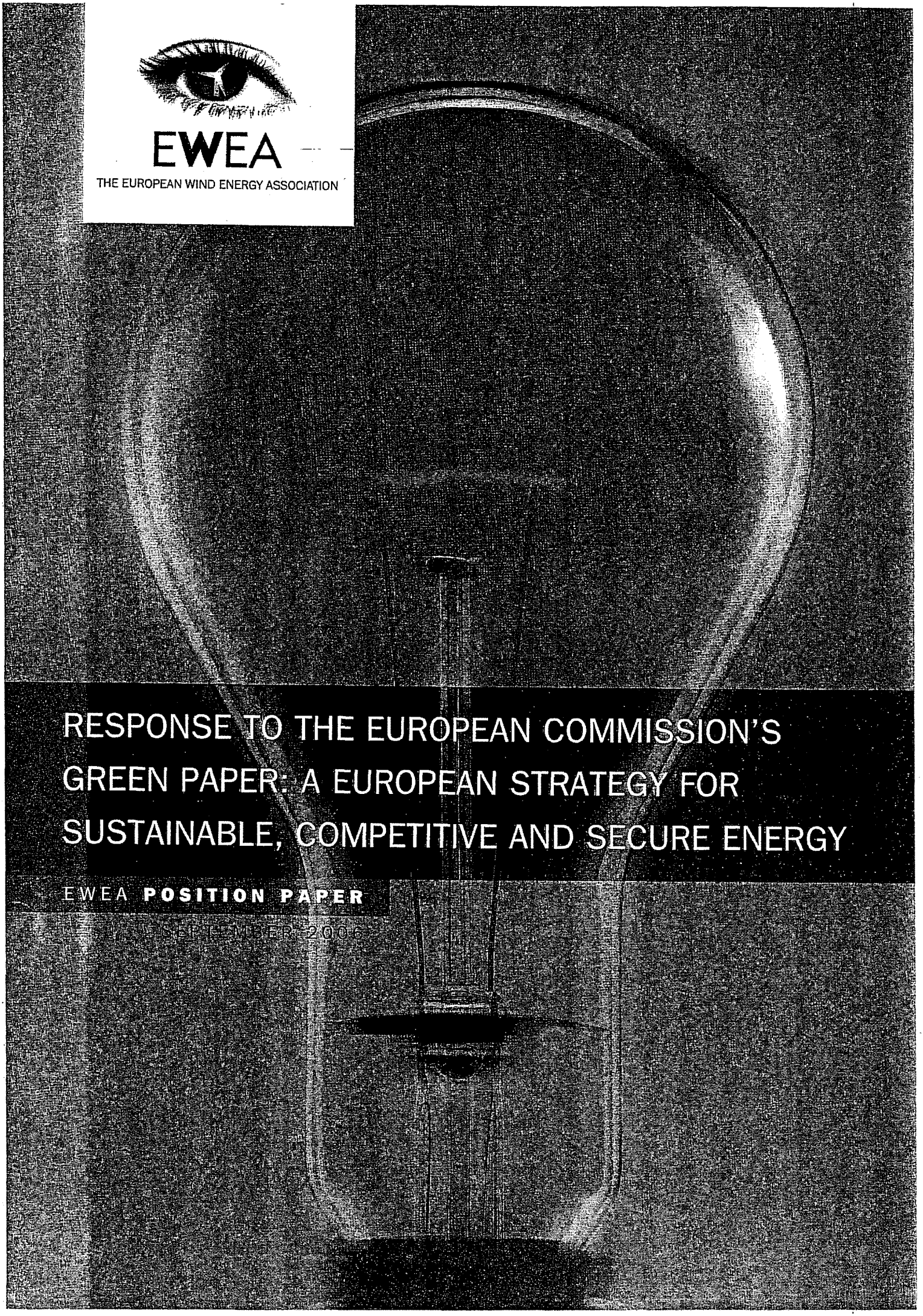

EWEA

THE EUROPEAN WIND ENERGY ASSOCIATION

RESPONSE TO THE EUROPEAN COMMISSION'S GREEN PAPER: A EUROPEAN STRATEGY FOR SUSTAINABLE, COMPETITIVE AND SECURE ENERGY

EWEA **POSITION PAPER**

SEPTEMBER 2006

EWEA
WIND IS POWER

DG TREN	CODE:
A/	38407
ACTION:	ECHEANCE:
	27. 11. 2006

R	A	B	C		E	F
G	H	I	J	CP1	CP2	CP3
[redacted]	[redacted]	01				AAE
			[redacted]	DGA	DGA	
			CD	EFG	HI	

Brussels, November 2006

The European Wind Energy Association (EWEA) is closely following the energy debate regarding the establishment or not of a truly European Energy Policy and what such a policy should contain.

As a response to the public consultation on the Green Paper *on a European Strategy for Sustainable, Competitive and Secure Energy* [COM (2006) 105 final], the Association has prepared a position paper with its recommendations to the European Commission on the priority areas that appear on the Green Paper.

The report that accompanies this letter thus reflects our views on important matters such as how to improve competitiveness in the internal energy markets, how best to develop the potential of indigenous renewable energy sources so that they can contribute to improving the EU's security of supply and environmental performance, how to optimize and balance R&D in the energy field and what should be the role of energy within the diplomatic agenda.

The European Wind Energy Association (EWEA) is the voice of the wind industry, with more than 300 members from 40 countries. These members include manufacturers covering 98% of the world wind power market, component suppliers, research institutes, national wind and renewable associations, developers, electricity providers, finance and insurance companies and consultants. This combined strength makes EWEA the world's largest and most powerful wind energy network.

As policy director of the European Wind Energy Association, I will be delighted to further discuss with you the issues that appear on this position paper.

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BACKGROUND INFORMATION

EURIMA

- Eurima is the European Association of Insulation Manufacturers and represents the interests of all major mineral wool insulation producers throughout Europe. Eurima members employ over 20,000 people across Europe with the installation of insulation products accounting for an estimated 300,000 man-years
- Eurima members manufacture mineral wool insulation products. These products are used in residential and commercial buildings as well as industrial facilities. Glass and stone wool insulation secure a high level of comfort, low energy costs and minimised CO_2 emissions. Mineral wool insulation prevents heat loss through roofs, walls, floors, pipes and boilers, reduces noise pollution and protects homes and industrial facilities from the risk of fire.

ENERGY USE IN BUILDINGS

- Currently over 40% of all Europe's energy is used in buildings, this is more than is used in either transport or industry.
- Measures such as roof and wall insulation can cut this energy use in half, reducing energy use across the EU by 20%, saving the equivalent of 3.3 million barrels of oil a day.

COST SAVINGS FROM ACTION

- A concerted effort to reduce energy use in buildings across the EU 25 would save Europeans approximately 270 billion EURO a year in energy costs.
- This figure is based on a finding of the Ecofys VI (2006) study, which uses today's energy costs as the basis for future energy prices.

ENVIRONMENTAL BENEFITS

- The major environmental benefit from reducing energy use in buildings is a decrease in carbon dioxide emissions.
- The technical potential from buildings across the EU is a CO_2 emission reduction of 460 million tonnes (Mt) per year, which is more than the EU's total Kyoto commitment.
- If a concerted action was launched today to improve energy efficiency in buildings, a CO_2 emission reduction of 83 Mt per year by 2010 could be achieved with this figure rising to 144 Mt per year by 2015 and the technical potential of 460 Mt per year being reached by 2032.

JOB POTENTIAL

- Improving energy efficiency in buildings would require a major effort to renovate existing homes, which has the potential to create significant jobs across the EU.
- It is estimated that a concerted effort to improve energy efficiency in buildings would lead to the creation of the equivalent of up to 530,000 full time jobs across the EU 25.
- These jobs would remain for the entire period of the renovation cycle, e.g. 30 years.

European countries to be able to show solidarity during an energy crises, Member States themselves or the system as a whole will need spare capacity in order to make this possible. Improvement of energy efficiency in buildings can supply a vast amount of energy savings or so-called 'negajoules', which can help deliver this spare capacity.

iii. **Security of supply**: Energy efficiency in buildings is essential to the security of supply of European countries because it can reduce energy consumption at a scale that can have significant impacts on a country and Europe's dependence on foreign energy supplies. Currently over 40% of all Europe's energy is used in buildings, this is more than is used in either transport or industry. Simple measures such as roof and wall insulation can cut this energy use in half, reducing energy use across the EU by 20%. It is in line with what the Council of the EU stated in its meeting's conclusions of March 2006: "*the achievement of high energy efficiency levels and tangible, cost-effective benefits for the environment and security of supply*".

iv. **External policy**: Energy efficiency can help Europe to re-affirm its political independence whilst energy is becoming a major point of leverage on the international scene. Energy efficiency in buildings is the only source of energy without any trade-offs. It can reduce Europe's energy dependency on politically unstable parts of the world, without having to trade this off against other forms of security. The energy reduction potential in buildings is so significant that it can also reduce the risk that Europe's need for energy will undermine its ability to stand strong and firm on human rights issues or other political priorities that may otherwise have to be traded against energy security.

v. **Sustainable development**: Buildings are an immediate and cost-effective solution to providing Europeans with the energy benefits they want (e.g. a warm and comfortable house) without scarifying the environment that they cherish. If concerted action was taken today to improve energy efficiency in buildings, a CO_2 emission reduction of 83 Mt per year by 2010 could be achieved with the technical potential of 460 Mt per year being reached by 2032. The combination of green opportunities from renewable sources with the improvement of energy efficiency in buildings can also make a major difference in the fight against climate change and the sustainable development of European countries.

vi. **Innovation**: Although some technologies in buildings such as thermal insulation have proven their efficiency and effectiveness, recent market failures mean that finding ways to ensure these technologies are deployed will need innovative approaches. Innovative approaches are often harder to find then innovative products. However, if we manage to find these innovative approaches this can help to make Europe a world leader on energy efficiency thus, creating a competitive edge. It would offer Europe the opportunity to develop the right mix of regulation, incentives and information, which can yield real differences.

4. CONCLUSIONS

Energy efficiency in buildings is often considered only as a way to address climate change while it should be seen as one of the core elements of any energy policy. This is the reason why, the G8 countries stated that *"energy saved is energy produced and is often a more affordable and environmentally responsible option to meet the growing energy demand"* during the summit meeting in Saint-Petersburg in July 2006.

Energy efficiency in buildings offers the opportunity to support the development of a coherent and integrated approach to the various challenges related to European energy issues. Simple facts show that improving energy efficiency in buildings could achieve much of our objectives. But capturing this potential requires a collective effort from the European Union.

Therefore, Eurima calls on the European Commission to recognise the strategic importance of energy efficiency in buildings in its consultation paper on the European Strategy for Sustainable, Competitive and Secure Energy. We also call on Heads of State to ensure that energy efficiency in buildings is given a very high priority within energy policy and that this is reflected in the Council's position on the European Commission forthcoming Action Plan for Energy Efficiency. In particular, the Action Plan offers to Europe another major chance to implement a clear road map for seizing the energy efficiency potential in buildings. We hope that this opportunity is seized.

jobs in Europe and a more competitive industry consuming less energy" (European Commission, Winning the Battle Against Global Climate Change, SEC(2005) 180).

Given the challenges that all European countries face regarding energy, Eurima strongly supports today's efforts to build a strategic framework for European energy policy. However, we believe that any strategic plan that does not deal with energy efficiency in buildings will not deliver the societal and economic benefits that are needed. Why? The reason is simple - buildings can make a difference:

- **Growth:** 40% of all Europe's energy is used in buildings yet Europe could cut this use by half, liberating 20% of our current energy. This in turn could be used to boost growth and innovation. At today's energy prices this reduction in energy use amounts to 270 billion EURO a year in savings. To put this in perspective, the EU Structural Funds budget for 2007-2013 represents around 308 billion EURO for the total period.

- **Energy Security:** Reducing energy use by 20% is the equivalent of reducing oil imports by 3.3 million barrels a day.

- **Environment :** Reducing energy use in buildings reduces CO_2 emissions and emissions of air pollutants. Halving energy use in buildings would cut CO_2 emissions by 460 million tonnes a year, which is more than the EU's total Kyoto commitment.

- **Jobs:** Saving energy in buildings takes work, work carried out by Europeans. A concerted effort to upgrade the energy efficiency of existing buildings, during the normal renovation cycle, would create up to an additional 530,000[1] jobs a year across the EU. The expertise created would also help European companies to be world leaders in delivering energy efficiency outcomes.

- **Cohesion:** The improvement of energy efficiency in buildings is one of the most effective ways to improve living conditions in the poorest areas of EU. It can also help reduce the impact of increasing energy bills on individuals and countries.

3. ENERGY EFFICIENCY - A KEY PILLAR OF THE EU's ENERGY POLICY

The European Commission's paper identified six areas to achieve a new European strategy for energy but only positions energy efficiency as a way to address our sustainable development. This is in contradiction with the March 2005 European Council Presidency's meeting which, "*emphasises the importance of energy efficiency as a factor in competitiveness and sustainable development*". Energy efficiency and in particular energy efficiency in buildings can play a significant role in helping to deliver in all the areas and this must be recognised both as part of the discussions on energy policy as well as on the emphasis and resources that are committed to policy approaches to this issue.

In terms of the six priority areas, energy can contribute in the following manner:

i. **Competitiveness and the internal energy market:** Demand side management is a core component of the internal energy market because it can have a critical impact on energy prices. Competition does not work well in an environment where demand is higher than supply. To re-adjust the market's competitiveness, we therefore have to leverage the demand side. Why? Because energy efficiency gains over the last 30 years are greater than the contribution to Europe's energy needs of any current fuel source - more than oil or gas provides. Therefore, a competitive internal energy market is inextricably linked to the improvement of energy efficiency in buildings as it can deliver cost-effective options, secure availability of energy at affordable prices as well as create jobs.

ii. **Solidarity and diversification of the energy mix:** Energy efficiency is central to the diversification of the energy mix in Europe. The Council of the EU said that energy diversification should "*include the development and exploitation of indigenous energy potential and energy efficiency*" in its meeting's conclusions of March 2006. If we want

[1] Eurima estimate

Position Paper

eurima
European Insulation Manufacturers Association

Brussels, 04 September 2006

Contact person:

e-mail address: @eurima.org

Eurima's Response to the Consultation Paper on the European Strategy for Sustainable, Competitive and Secure Energy

1. INTRODUCTION

Eurima (the European Insulation Manufacturers Association) represents manufacturers of glass and stone wool. In addition to thermal insulation, glass and stone wool products provide sound insulation and passive fire protection. Eurima members are present in all 25 EU Member States and directly employ over 20,000 people, with the installation of insulation accounting for an additional 300,000 jobs.

As an industry that has been actively involved in campaigning, since the late 1980's, to reduce the staggering waste of energy from the European building stock - currently standing at the equivalent of 3.3 million barrels of oil a day - we welcome the publication of the consultation paper on a European Strategy for Sustainable, Competitive and Secure Energy. We believe that this consultation paper is particularly timely in view of Europe's growing dependence on foreign energy supplies, the economic waste associated with a lack of energy efficiency in buildings and the massive carbon dioxide emissions that this causes. Saved energy in the building sector could be applied more effectively to our economy, when available for our industrial processes to ensure Europe's competitive edge in the long term.

2. BUILDINGS - A WASTED OPPORTUNITY TO SECURE EUROPE'S ENERGY

Eurima regrets that the consultation paper did not visibly recognise the strategic importance of energy efficiency in buildings in helping to deliver the objective of a sustainable, competitive and secure energy supply. In addition, the Green Paper, does not recognise the important and significant contribution that energy efficiency can make, not only to the Europe's energy objectives, but also to its wider objectives. It is important that as we discuss the issues raised by the Green Paper and that this missed opportunity is addressed, to ensure that the policy conclusions that are drawn, put the emphasis in the right places.

To understand both the significance of energy efficiency and buildings to achieving Europe's energy goals, one can simply look at the figures. In Europe buildings represent 40% of our energy consumption, more than transport and more than industry. Half of this energy is being used unnecessarily due to a lack of simple energy efficiency measures. This means that 20% of Europe's total energy could be reduced through cost effective measures in buildings alone. This is the equivalent of reducing energy use by 3.3 million barrels of oil a day, reducing CO_2 emissions by 460 million tonnes a year or reducing energy expenditure by 270 billion EURO a year. Energy efficiency in buildings is not marginal but core to The Green Paper's objectives.

Energy efficiency is not only a core issue but it is also the only energy solution without any trade-offs. Environmental objectives need not be traded for competitiveness, energy security need not be traded against safety and security of supply need not be traded against human rights. This is the reason why the European Commission said in June 2005 that "*one central pillar of any future energy strategy for the EU must be cost effective energy efficiency improvements and energy savings. Action in this field further complements the Lisbon strategy, strengthens the security of energy supply, and creates significant numbers of new*

From: d (TREN)
Sent: mardi 5 septembre 2006 19:22
To: TREN MAIL; '
Subject: FW: Eurima's response to Consultation Paper
Attachments: Eurima position on Energy Policy GP_04 09 06.pdf

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06. 09. 2006						
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			DGA	DGA	DGA	
			CD	EFG	HI	

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-----Original Message-----
From: s@eurima.org]
Sent: Tuesday, September 05, 2006 5:42 PM
To: 1 (TREN)
Subject: FW: Eurima's response to Consultation Paper

From:
Sent: 04 September 2006 17:59
To: 'TREN-ENERGY-GP@ec.europa.eu'
Cc: ' is@ec.europa.eu'; 'l e@ec.europa.eu'; '. @ec.europa.eu'
Subject: Eurima's response to Consultation Paper

Dear Sir/Madam,

Please find attached Eurima's Response to the Consultation Paper on the European Strategy for Sustainable, Competitive and Secure Energy.

Yours sincerely,

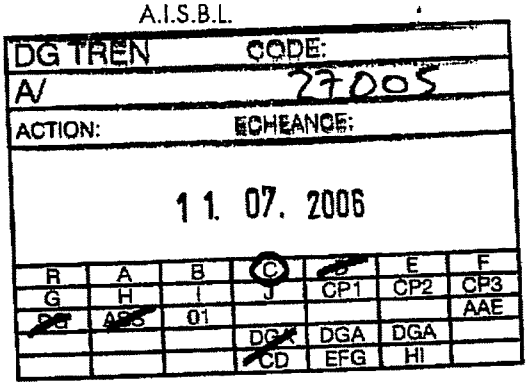
Marketing Coordinator
Eurima
+32.2.626.20.93 - direct
lena.esteves@eurima.org

www.eurima.org
www.eurima.org/270yeswecan
www.eurima.org/dothemaths

UNION OF THE ELECTRICITY INDUSTRY

eurelectric

A.I.S.B.L.



Mr.
Director-General
European Commission
DG Energy and Transport (TREN)
Rue de la loi 200
1049 BRUSSELS
BELGIUM

Brussels, 7 July 2006

Subject: **EURELECTRIC comments to the EU Green Paper "*A European Strategy for Sustainable, Competitive and Secure Energy*"**

Dear Mr.

The Union of the Electricity Industry – EURELECTRIC welcomes the Commission's initiative to launch a broad debate on European energy policy with the Green Paper "*A European Strategy for Sustainable, Competitive and Secure Energy*", adopted on 8 March 2006.

We are pleased to send you attached our comments prepared in response to this Green Paper.

Fully supporting the process of energy market opening, EURELECTRIC places trust in the liberalised market framework to respond to the challenges of competitiveness, supply security and environmental sustainability. Ensuring a balance between these main energy policy objectives is a major challenge to EU Institutions and national governments. EURELECTRIC supports the legislators and public authorities in this endeavour, and stresses the importance of cost-effective policy options, regulatory stability and coherence, and a long-term energy policy vision.

EURELECTRIC is keen to take part in the continuing debate on European energy policy. Should you require further details concerning this paper, please do not hesitate to contact Mr. Juho Lipponen, Head of Unit for 'Energy Policy, Generation and Networks' (tel: +32 2 515 1014; email: jlipponen@eurelectric.org). These comments can also be downloaded from the EURELECTRIC website http://www.eurelectric.org.

Yours sincerely,

Secretary General

Encl: EURELECTRIC Comments to EU Green Paper

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EURELECTRIC comments

European Commission Green Paper on "A European Strategy for Sustainable, Competitive and Secure Energy"

Working Group on Energy Policy

UNION OF THE ELECTRICITY INDUSTRY
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Union of the Electricity Industry – EURELECTRIC

Comments

EU Green Paper on
"A European Strategy for Sustainable, Competitive and Secure Energy"

June 2006

These comments have been prepared by the Energy Policy Working Group.

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UNION OF THE ELECTRICITY INDUSTRY
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The **Union of the Electricity Industry–EURELECTRIC** is the sector association representing the common interests of the electricity industry at pan-European level, plus its affiliates and associates on several other continents.

In line with its mission, EURELECTRIC seeks to contribute to the competitiveness of the electricity industry, to provide effective representation for the industry in public affairs, and to promote the role of electricity both in the advancement of society and in helping provide solutions to the challenges of sustainable development.

EURELECTRIC's formal opinions, policy positions and reports are formulated in Working Groups, composed of experts from the electricity industry, supervised by five Committees. This "structure of expertise" ensures that EURELECTRIC's published documents are based on high-quality input with up-to-date information.

For further information on EURELECTRIC activities, visit our website, which provides general information on the association and on policy issues relevant to the electricity industry; latest news of our activities; EURELECTRIC positions and statements; a publications catalogue listing EURELECTRIC reports; and information on our events and conferences.

EURELECTRIC pursues in all its activities the application of the following sustainable development values:

Economic Development
Growth, added-value, efficiency

Environmental Leadership
Commitment, innovation, pro-activeness

Social Responsibility
Transparency, ethics, accountability

KEY EURELECTRIC MESSAGES

Coherence of energy policy

Balance of policy objectives: EURELECTRIC welcomes many elements of the Green Paper, in particular its support for a balance between energy policy objectives.

Cost-effectiveness: EURELECTRIC is pleased to see the emphasis placed on open markets and cost-effective policy options.

Clarity regarding policy conflicts: the Green Paper could usefully say more on how policy conflicts should be resolved; it is not always clear how the Commission's support for a market approach fits in with the various targets proposed in the document.

A long-term vision: Europe's energy policy needs a long-term vision with stability and coherence of regulation; EU policy should focus on where it can add most value; if new energy institutions are to be set up at EU level, a clear case must be made to show that they will deliver improvements.

Strategic Energy Review: the annual stocktaking of energy matters could be helpful in providing a clearer basis for national and company decision-making; however, the appropriate framework and purpose of this Review need to be clearly defined and it should not be used to impose a target fuel mix.

External energy policy: EURELECTRIC supports the Commission's intention to strive for a more coordinated approach to external policies, with energy issues properly integrated, and recognises that the EU institutions have a role in fostering good international relations and promoting favourable investment and market conditions.

Security of supply

Trust in the market: policy-makers must retain their reliance on the European Internal Market to deliver the very substantial investment required in the electricity sector. Interfering with the market would send the wrong signals to investors. It is imperative to maintain an investment-friendly business climate.

A mix of options: primary energy and technology options should not be limited through political decisions. It is important to establish clear framework conditions, but also to avoid limiting countries' and companies' choices of technologies. The EU should therefore play a facilitating role, aiming to keep options open.

Dependence on imported energy: as Europe is increasingly dependent on imported energy, actions should be pursued in 1) diversifying suppliers and supply/transit routes, 2) employing a diversified energy technology portfolio, which can reduce dependency on imports and 3) ensuring rational, efficient and cost-efficient energy conversion and use.

Minimum level of low-carbon and secure energy: EURELECTRIC does not support prescription of the fuel mix and has some doubts about the use of a "benchmark" for import dependency, particularly if this is used to limit fuel choice.

Electricity and Gas Supply Security Directives: EURELECTRIC believes that experience with the implementation of these new directives must be gathered before any consideration is given to amending them.

Competitive energy markets

Progress to date: significant progress is being made towards a more liberalised EU electricity market, as shown by the development of network access rules, application of the unbundling rules, establishment of power exchanges in most countries and convergence of wholesale prices in some regions.

Implementation of existing legislation: in addition to the progress so far, further efforts are needed and particular priority needs to be given to the full implementation of the 2003 energy liberalisation package.

Market integration: EURELECTRIC has drawn up a Roadmap on how to move towards a pan-European wholesale electricity market and is actively pursuing its practical implementation. The Roadmap is based on the use of regional, liquid wholesale markets as the driver for further market integration.

European regulation: EURELECTRIC believes that priority should be given to developing more efficient regulatory processes at European and regional level before deciding who could do this best (an improved ERGEG or a European regulator).

European grid code: the Commission should make clear whether it is proposing to harmonise technical or commercial rules, and should indicate where it sees these rules as representing a barrier to trade.

Interconnection development: interconnection should be built where economically justified; the EU and governments have a key task in shortening approval procedures. A truly pan-European market will undoubtedly require additional infrastructure.

Environmental issues

Global solution: it is clear that global approaches are needed in order to tackle climate change while maintaining Europe's competitiveness. It should be a priority of EU external relations policy to achieve an agreement with other major emitters of greenhouse gasses.

All tools needed: EURELECTRIC believes that a wider range of tools is needed to tackle climate change than those indicated in the Green Paper; energy efficiency, new renewables and carbon capture all have a role to play, but nuclear power, hydro power and cleaner fossil technologies will also be needed if Europe is to meet its very challenging targets.

Longer time horizons: Long-term visibility of policy must be improved: for example, the EU-Emissions Trading Scheme can be a driver for investment in lower-carbon electricity generation. However, due to the capital-intensive nature of the electricity business, longer time horizons are required, for example on the allocation of emissions allowances.

All sectors to contribute: EURELECTRIC agrees that energy efficiency should be a priority and welcomes the intention to look for savings in all sectors including households, buildings and transport; full consideration should be given to the energy-saving potential of electro-technologies.

0. General comments

EURELECTRIC welcomes the Commission's initiative to launch a broad debate on European energy policy with the Green Paper on *"A European Strategy for Sustainable, Competitive and Secure Energy"* (COM(2006)105). Given the increasing challenge of balancing the objectives of supply security, competitiveness and environmental sustainability, it is necessary for EU Member States to cooperate more closely on energy policy.

EURELECTRIC finds some very positive elements in the Green Paper that are of particular interest for the European electricity industry:

- the need for balance and coherence between the three pillars of energy policy
- the recognition that properly functioning open and competitive energy markets are necessary for sustainable, competitive and secure energy supply
- the emphasis on the need for a stable investment framework
- the use of regulatory impact assessment to evaluate future energy legislation
- the long-term view for developing renewable energy sources and promoting their competitiveness
- the importance of R&D programmes which take a broad and long-term view
- the more positive stance towards nuclear energy and solid fuels, which are no longer considered 'undesirables', as in the 2000 Green Paper

In general, EURELECTRIC would like to see greater emphasis on longer-term issues and would wish to have more clarity on how policy conflicts will be resolved. EURELECTRIC has some concerns about the overall consistency of the Green Paper. Despite the advocacy of open and competitive markets, the document refers to a series of targets, benchmarks or plans, covering energy efficiency, renewables, interconnection, import dependency, etc. It is unclear how consistent such targets are with a liberalised market and if they do not turn out to be cost-effective, the question arises whether they should still be pursued.

In addition, the Green Paper proposes to establish a number of new institutions to deal with energy issues. Many new consultative committees and other bodies have been established at EU level in recent years. EURELECTRIC believes that a full assessment of effectiveness and added value must be carried out before any further institutions are created.

1. Energy for growth and jobs in Europe: completing the internal European electricity and gas markets

Electricity markets have significantly progressed since the introduction of liberalisation but they remain in transition and additional steps still need to be taken towards an integrated pan-European market. In the EURELECTRIC *Roadmap to a pan-European market* and its recent paper on transparency, we have proposed proposing a way forward based on the development of liquid and transparent wholesale markets. This approach needs to be underpinned by proper implementation of the liberalisation package and by stronger cooperation between TSOs and between Regulators.

Completing the internal market

As stated by the IEA[1], electricity market liberalisation has delivered considerable economic benefits, but liberalisation to introduce competition is not an event but a process, requiring long-term commitment. Electricity markets have progressed significantly since the introduction of liberalisation: they have delivered lower real term prices (18% for industrial customers, 11% for households) over the last ten years and considerable productivity increases thanks to major cost cutting and restructuring of companies. At the same time, high levels of public service and customer satisfaction have been maintained. Nevertheless, further major steps are still needed to achieve a truly integrated pan-European market in electricity and gas. EURELECTRIC very much welcomes the confidence placed by the Green Paper in the liberalisation process, as it is crucial that momentum be maintained and that market confidence be further strengthened.

As a prerequisite to any further development, it is of paramount importance that the 2003 liberalisation package be implemented effectively in all the Member States. Key areas for attention are the unbundling of networks in line with the Directives, non-discriminatory behaviour by TSOs in their daily operation, and the removal of regulated tariffs, which risk jeopardising the further integration of electricity markets.

EURELECTRIC believes that the best way to obtain tangible results is the development of liquid and transparent wholesale markets and their integration at regional and eventually pan-European level. Swift progress on market transparency will help this process. This vision is at the heart of EURELECTRIC's approach to markets, as expressed in the Roadmap to a pan-European market[2] and our recent paper on transparency[3]. ERGEG's regional market initiative, if properly resourced and managed, could well be a vehicle for making significant progress on these issues. In order to deliver prompt results, cooperation involving the main stakeholders should be an integral part of this process,

In the gas market, it is necessary to improve synergies and to match the progress made in electricity. Key areas to be tackled are:

- maximisation of network and storage capacities, which should be made available on a non-discriminatory basis
- improving transparency on network availability
- use of the negotiated model for access to storage to be restricted to cases where genuine competition exists
- promotion of hub-to-hub trading in order to increase gas market liquidity

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1 Lessons from Liberalised Electricity Markets, IEA 2005

2 Integrating Electricity Markets through Wholesale Markets: EURELECTRIC Road Map to a Pan-European Market, 2005

3 Position Paper on market transparency (further to the request of the 12th Florence Forum), 2006

European energy regulator

The experience obtained in the development of electricity markets over the past years shows that a more consistent and efficient regulatory process is needed at EU level in order to remove regulatory obstacles and pave the way for increasingly integrated markets. Such improvements in the process should in our view be driven by:

- a clear delineation of issues and responsibilities
- a well defined agenda underpinned by action-oriented procedures
- a frank European mindset with clear priorities
- a cooperative approach towards industry stakeholders in which their involvement should begin early and go beyond merely consultative practices that are not able to create sufficient consensus

We believe that it is imperative to begin clarifying in the first place what is needed for a more efficient regulatory process at European level before deciding who could do this best (whether an improved ERGEG or a new European regulatory body).

In EURELECTRIC's view, such an approach should develop stepwise with the development of regional markets as the main step. Therefore, we believe that at this stage, the focus should be on the development of a coherent regulatory process at regional level that is capable of successfully driving regional integration as a primary objective. In our view the following issues should be covered under this regional remit:

- investment relevant to the development/ reinforcement of a regional market
- cross-border capacity allocation and congestion management
- cross-border intra-day markets
- technical issues relating to cross-border balancing and reserve markets
- inter-TSO compensation mechanism
- furthering technical cooperation of TSOs at regional level
- transparency guidelines

Furthermore, a coherent regional regulatory process should be accompanied by careful monitoring at European level so as to ensure that regional markets are developing in a consistent manner so as to allow later integration into a pan-European market. Additionally, national regulation should be adapted if it conflicts with cross-border requirements.

Role of TSOs – essential for market development

On top of their operational role of securing the operation of the network, TSOs have taken a number of actions in order to facilitate the market (notably with the establishment of the inter-TSO compensation scheme), but we believe that their role as market integration facilitator should be further reinforced. Indeed, TSOs have a pivotal function in the development of electricity market and the interrelations between TSOs should be revisited from that perspective.

Better coordination between TSOs

In line with the approach set out in relation to the regulators, we believe that stronger coordination between TSOs should be achieved first in the regional sphere. Regional approaches can be instrumental in harmonising definitions, standards and procedures so as to ensure that on important issues, such as managing congestion and maintaining security of the grid, TSOs located on a regional market can be seen acting as one.

The remit of these bodies should be the same as mentioned above on the regulatory aspects:

- investment relevant to the development / reinforcement of a regional market
- cross-border capacity allocation and congestion management
- cross-border balancing and reserve markets
- cross-border intra-day markets
- inter-TSO compensation mechanism
- creation of a transparency platform

European Grid Code and European Centre for Energy Networks

EURELECTRIC would like to see clarification of what is meant by a European Grid Code. There would be some value in a common market access code, which would make it easier to trade electricity and gas across Europe. On the other hand, full harmonisation of the technical rules set out in national grid codes is probably unnecessary and there will inevitably be differences in the operating requirements, for instance, of the Irish and UCTE networks. There should therefore be clarity about the objectives of any code before it is developed. It is also unclear what the added value of a European Centre for Energy Networks would be.

Priority interconnections

EURELECTRIC supports any economically sound investment in transmission infrastructure which will alleviate cross-border or internal bottlenecks. There are undoubtedly some cross-border transmission constraints, which are hindering market integration and targeted reinforcements of certain key strategic transmission lines in a cost-effective manner would help to integrate markets. Priority should also be given to ensuring optimum use of current interconnectors and pipelines. It is also important to promote regional network-planning.

However, lengthy authorisation procedures are much more serious barriers to network development. The European Union and Member States can contribute to tackling this problem by shortening timescales and streamlining approval procedures, which in many countries make network investment extremely difficult or even impossible. The option of an entrepreneurial approach (merchant lines) should also remain open. EURELECTRIC emphasises that network planning and investment is primarily a matter for the sector actors, with the authorities playing a facilitating role.

As regards a priority interconnection plan, it must be noted that priority lists have already been drawn-up, for example under the Trans European Networks (TENs) policies. It is important that such lists are kept up to date and are fully coherent with the new TENs guidelines.

Investment in electricity generation

The IEA estimated that to meet growing demand and to replace existing plants over 750 GW of new power generation capacity will be needed in the EU-25 in the period 2001 to 2030[4]. This will require investment of up to €1000 billion. EURELECTRIC reiterates the belief that the Internal Market, if allowed to function properly, will deliver the necessary incentives for investment. If investments on this scale are to materialise, the regulatory and policy framework must be stable, predictable and consistent.

EURELECTRIC welcomes the Commission's approach in this matter, based on the principle of liberalised markets. To ensure stability, policymakers must therefore retain basic trust in the ability of the internal market to deliver the necessary incentives for ongoing investments in energy infrastructure. Interfering with the market would create uncertainty and send investors the wrong signal. Specific issues may arise in particular markets, e.g. ensuring the availability of adequate peaking capacity, but these can be dealt with through the market

[4] World Energy Outlook 2004, IEA

framework set in the Electricity Market Directive and Security of Electricity Supply Directive.

Industrial competitiveness

EURELECTRIC fully agrees that Europe's industrial competitiveness must be maintained and that energy policy should be based on consistent and least-cost options. EURELECTRIC very much welcomes the Commission's commitment to full economic analysis and regulatory impact assessment of any future policy measures.

The electricity industry also acknowledges the demand of large customers for longer-term contracts and partnerships, and is ready to discuss ways to diversify the range of supply contracts offered to large industrial customers. Most suppliers already offer flexible contracts with different time horizons and if wholesale markets are liquid enough, longer-term contracts will not foreclose markets to new entrants or distort price signals. Longer-term contracts should be based on market terms and conditions so as to avoid any distrust in the market and distortions of competition among both industrial customers and power generators.

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

EURELECTRIC welcomes the Green Paper's recognition that liberalised and competitive markets help to ensure security of supply. To that end, markets need a transparent and predictable framework. Improving transparency of oil and gas stock levels would be beneficial. EURELECTRIC sees no need to revise the new directives on security of electricity and gas supply before experience on their functioning has been gathered as this would not be conducive to a stable regulatory framework.

Enhancing supply security in the internal market

EURELECTRIC welcomes the statement that liberalised and competitive markets help security of supply by sending the right investment signals to industry participants, and that this market framework needs to be transparent and predictable. A well-interconnected internal market will improve opportunities for actors to source energy across borders, which will contribute to overall supply security and solidarity.

European Energy Supply Observatory

EURELECTRIC sees some potential benefit in creating a European Energy Supply Observatory, as far as it genuinely contributes to monitoring supply and demand patterns on EU energy markets, and to identifying at an early stage possible shortfalls in infrastructure and supply. However, care must be taken to avoid any duplication with existing initiatives, and ensure that real added value is delivered. It must be borne in mind that energy companies themselves undertake extensive market analysis looking far into the future and are likely to derive less benefit from an observatory than policymakers. It is therefore particularly important that information burdens be kept to a minimum.

Physical security of infrastructure

The Green Paper calls for a mechanism for rapid solidarity and possible assistance in case of damage to essential infrastructure in a country. EURELECTRIC recognises the key importance of ensuring security of critical infrastructure, in particular in the electricity sector, given the crucial role electricity plays in today's society. While there is certainly no room for complacency, electricity companies have experience in dealing with natural hazards, and

power systems are designed and operated with these factors in mind. In addition, operators of the European interconnected system enjoy well-developed cooperation. In EURELECTRIC's view, security of critical infrastructure is primarily a national matter and EU measures should therefore focus on the establishment of a common framework in relation to infrastructure serving several Member States.

Emergency arrangements

Member States have emergency mechanisms, which have worked well to date in solving internal supply crises. As most EU Member States participate in the IEA, an effective co-ordination system already exists. In addition, responsibility towards stakeholders and customers leads companies to employ enhanced risk management strategies (storage capacity, interruptible supply, bilateral contracts in emergency cases, etc).

Internal solidarity could be promoted through the existing emergency oil stocks and further development of and third-party access to gas storage facilities, enabling the supply of energy to neighbouring EU countries under pre-agreed conditions. Nevertheless, any such measures should not interfere with the workings of the market, the investment climate or the level playing field. EURELECTRIC does not see the need to set minimum storage levels or similar targets for gas. On the other hand, enhanced transparency for storage access and storage levels could make a useful contribution.

In the electricity sector, a culture of mutual assistance exists, including fast provision of assistance (spare parts, equipment and workforce) in emergency situations. These arrangements have been effective recently for example in helping to manage the impact of severe storms in Northern Europe.

Revision of directives on gas and electricity security of supply

The Internal Electricity Market Directive (2003/54/EC) and the Security of Electricity Supply and Infrastructure Investment Directive (2005/89/EC) provide a comprehensive European legislative framework for ensuring supply security and investment. Fully implementing and gaining experience of the current framework should now be the priority. EURELECTRIC believes that it would be not only premature, but clearly unjustified to start reviewing the new Directives for electricity and gas supply security before experience of their operation has been gained.

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

EURELECTRIC emphasises that all primary energy and technology options must be kept open for investors if Europe is to meet its energy policy objectives. This must include equal access to energy sources such as nuclear energy, solid fossil fuels, gas, hydro and other renewables. The envisaged Strategic EU Energy Review, strictly as an informal tool, may provide a useful contribution to creating transparency at a European level. EURELECTRIC has some doubts about setting benchmarks in relation to low-carbon and secure energy sources.

A balanced and diverse energy mix

To ensure security of electricity supply while reducing Europe's oil dependency and taking account of key environmental goals, it is vital to keep all primary energy and technology options open. EU energy policy should therefore strive to play a facilitating role but not limit countries' or companies' choice of fuels or technologies. In electricity production, the overall

EU fuel mix is at present relatively well balanced[5], and therefore European policy should be geared towards maintaining this situation and tackling other sectors such as transport where lack of diversity is a real issue.

The Green Paper calls for balance between the various objectives such as competitiveness, security of supply and sustainability. The energy mix must be driven by a balance of these objectives. In this light, nuclear, coal, lignite, natural gas, hydro and other renewables all have their distinct role and contribution to make to the above objectives.

In order to promote diversification of energy supplies, the EU must create a stable political framework for energy companies to do business with their fuel suppliers. This implies pursuing a wise geopolitical agenda, enhancing political cooperation with supply and transit countries, and adopting a more coordinated stance on energy issues. Priority energy projects should include supply routes to the EU. Permitting processes for internal infrastructure must be speeded up and simplified as far as possible.

Strategic EU Energy Review

EURELECTRIC in general welcomes the Commission's aim to achieve longer-term strategic thinking via the instruments of the Supply Observatory and the Strategic Review. As an informal tool, the suggested Strategic EU Energy Review may prove to be a useful means of helping companies and Member States make more informed choices about their energy strategy. However, it is not clear what is intended by a "European framework for national decisions", and whether such a framework can be compatible with a liberalised market framework and with national policies on fuel choice. In any case the Review should not be used as a means of restricting energy options.

Overall strategic objectives

The Green Paper points to the objective of ensuring that a minimum proportion of the overall EU energy mix originates from "secure and low-carbon" sources. Setting such broad objectives may be sensible, but it is very hard to see what mechanisms could be used to compel Member States and/or individual companies to meet specific targets. It is also difficult to reconcile such objectives with a market approach. Liberalised energy markets can only work effectively if investors have a free choice of fuels and technologies. It must be remembered that market players have an incentive to diversify fuels and fuel sources as a means of managing risk.

The Green Paper makes reference to "secure and low-carbon" energy sources, without specifying the fuels and technologies that would be included. This concept combines two separate policy objectives and would inevitably be difficult to define. There is also a risk of overlap with other EU policies on emissions trading and renewables, which seek to promote lower-carbon energy production. EURELECTRIC stresses that a "secure and low-carbon" energy mix must include a full range of primary energies and technologies.

[5] 31% nuclear, 31% coal, 19% gas, 13% renewables, 6% oil and others (European Commission: Energy & Transport in Figures 2005)

4. An integrated approach to tackling climate change

A full range of tools is needed to combat climate change. EURELECTRIC agrees that energy efficiency should be a priority, and welcomes the proposal to tackle the transport sector and buildings. Support for renewable energy should be organised in a cost-effective manner, and more efforts should be made to move towards a harmonised framework across the EU-25. Nuclear power and other zero-carbon sources, such as hydropower, must remain part of the European energy mix. EURELECTRIC stresses the importance of cost-effective policies, such as the EU Emissions Trading Scheme, implemented in a global context.

Global problems require global solutions. The European Union should make it a high priority to persuade other industrialised regions and also developing countries to play a full part in actions to combat climate change. This is imperative not only for the environment but also for competitiveness reasons. Climate change should therefore be at the heart of EU external relations policy.

EURELECTRIC considers that a wide range of technologies is needed to combat climate change. In this sense, the three tools identified in the Green Paper (energy efficiency, renewables and carbon capture), while extremely important, are not in themselves sufficient to meet Europe's climate goals. An integrated approach to climate change must be based on a long-term vision of a transition strategy to a low-carbon economy. This transition should take stock of:

- the available options for a low-carbon world and the technologies that can fill the gap in the meantime
- the expected availability of these options and the R&D needs to get there ('technological pathway')

Europe needs a broad range of tools including efficient fossil-fuel-based generation, such as clean coal, and also nuclear energy. As stated in the Green Paper, priority should be given to cost-effective options.

EU Emission Trading Scheme

EURELECTRIC reiterates a firm belief in market-based mechanisms, such as the EU Emissions Trading Scheme, to foster cost-efficient investment in zero- and low-carbon technologies. A global approach to post-2012 climate policy is essential and emissions trading could be a major driver for such a global approach. However, the electricity sector cannot take on the task of carbon abatement alone and it is crucial that other industrial sectors play their part. Specific sectors, such as transport, should not be exempted from contributing to emissions-reduction goals. It is also critical that clarity be provided as soon as possible on the future climate change regime, to create the regulatory framework for companies to undertake the necessary investments in low-carbon technologies. Long-term visibility of policy is essential – five-year time horizons are simply inadequate for a highly capital-intensive industry such as electricity, which has long payback times.

Regarding other market-based mechanisms, it is vital that companies have full and flexible access to the credits generated by the Kyoto mechanisms – Joint Implementation (JI) and Clean Development Mechanism (CDM). The setting of quantitative or qualitative "caps" on the use of such credits will undermine the potential cost-efficiencies of the emissions trading scheme and tend to reduce the number of possible projects put forward by electricity companies.

Energy efficiency: an increased role for electricity

EURELECTRIC recognises the need to improve energy efficiency for environmental, security of supply and competitive reasons and we fully support continuous improvement towards this objective. The electricity industry has invested in highly-efficient power generation, transmission, distribution and end-use technologies and has consistently promoted the efficient use of energy to its customers. EURELECTRIC's Energy Wisdom Programme[6], part of the EU Commission's "Sustainable Energy Europe" campaign, provides examples of projects undertaken by electricity companies which have resulted in savings of over 300 million tonnes of CO_2.

Electricity, with its unique properties, should be seen as *the* form of energy to respond to the various energy policy goals and to drive greater efficiency in the EU. It is regrettable that the Green Paper does not consider the potential of electricity and electric technologies, e.g. in lighting, domestic and industrial applications, heat pumps and transport, to replace less efficient energies and technologies, thereby improving energy efficiency.

In the case of transport, the IEA estimates that plug-in hybrid vehicles, using electricity from the grid, would have a higher overall well-to-wheel efficiency than internal combustion engine or fuel cell vehicles[7]. These technologies can bring a dramatic increase in energy efficiency while also reducing CO_2-emissions and oil dependency in the transport sector. The Commission's energy efficiency action plan should take account not only of the potential to save electricity but also the scope for replacing direct fossil fuel use with electro-technologies.

Stimulating an energy-saving culture in citizens is the key to improving the use of energy. It is fundamental to raise awareness and disseminate information to the public on energy efficiency measures and technologies. Efficiency targets for industrial equipment and residential appliances should also be established.

In relation to energy-efficiency targets, those countries or sectors which have already made improvements and therefore reached a higher initial efficiency should not be 'punished' by uniform targets or objectives which may be very difficult to achieve.

Renewable energy

Renewable energy sources (RES) will play an increasingly important role in Europe's energy mix and in combating climate change[8]. Being predominantly CO_2-free and indigenous sources, they represent a significant potential for diversifying the energy mix and decreasing the EU's dependence on energy imports. Renewables are a vital part of the total energy portfolio and the electricity industry represented in EURELECTRIC is a significant investor in RES-technology.

The Green Paper presents renewables as the main tool on the supply side to combat climate change. While the contribution of renewables will be significant, one must bear in mind that they are in some cases an expensive way to cut CO_2 emissions (up to €150/t of CO_2 avoided[9]).

As some RES technologies are not yet economically competitive, EURELECTRIC recognises the need to provide economic incentives for their further development, but stresses that such support schemes should be economically efficient and should provide for competition

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6 Energy Wisdom Programme 2004-2005 final report, EURELECTRIC 2006

7 Prospects for Hydrogen and Fuel Cells, IEA 2005

8 Various estimates point to a share of renewable energy of about 20% by 2030 in Europe's electricity production

9 A Quantitative Assessment of Direct Support Schemes for Renewables, EURELECTRIC 2004

between renewable technologies and producers, rewarding the most efficient production.

Furthermore, while it may be appropriate to have a separate "renewables market" in the beginning, it is vital that renewable energy eventually become part of the internal energy market. This is the only sustainable framework for developing renewables. Therefore, market-based support systems should be prioritised, with adequate transitional periods to safeguard existing investment. In the long run, RES support should be harmonised in the internal market.

EURELECTRIC would also like to see greater consistency between RES policies and environmental legislation, which, in certain cases, obstructs the development of renewables[10]. As an example, the Water Framework Directive is likely to result in a reduction in the production of electricity from hydroelectric resources, thus making it more difficult to reach the EU's renewables targets. In addition, the Habitats Directive may constitute a significant obstacle to some RES developments, particularly in the wind sector. In contrast, it should be better recognised that the EU emissions trading scheme will by definition lead to renewable electricity becoming more competitive in relation to fossil fuels. This should reduce the need for direct support and ultimately make separate support schemes for renewables unnecessary.

While targets for renewables can be helpful in sending a political signal, it is increasingly difficult to reconcile the concept of liberalised markets on the one hand and targets for specific energy technologies/sources on the other. In liberalised energy markets, the actors should be able to invest in those technologies and energy sources that are commercially viable. EURELECTRIC therefore questions whether further targets for renewable energy are needed.

Role of nuclear power

Europe needs a continuing contribution from nuclear energy. Half the EU Member States use nuclear power, which currently contributes to 31% of Europe's electricity generation[11]. In a number of Member States the political debate is increasingly oriented towards future investments in nuclear power. In this light, the Commission should give greater prominence to the role of nuclear energy, both in reducing dependency on imported fossil fuels, and in tackling climate change now and in the future.

Carbon capture and geological storage

Carbon capture and storage (CCS) is a promising technology route which has finally begun to receive much-needed political backing. While the basic CCS technologies already exist and several concrete pilot projects are currently being undertaken by the electricity industry[12], it is likely to take 15-20 years before CCS is sufficiently developed and deployed on a wider scale. In addition to bringing down the cost of carbon capture processes via increased R&D, demonstration and other financial incentives, several legal questions require answers in both the capture phase and the geological storage of CO_2, e.g. the waste framework. Furthermore, it is vital that carbon capture and storage be fully recognised as a CO_2-abatement technique under the emissions trading system.

EURELECTRIC stresses the importance of developing higher-efficiency fossil fuel power generation in combating climate change, due to the important economies of scale that can be achieved. Furthermore, as carbon-capture processes introduce an energy penalty[13] and

[10] Consistency of EU legislation, EURELECTRIC 2005

[11] Source: European Commission: "EU Energy and Transport in Figures 2005".

[12] Investment projects announced for example by Vattenfall, RWE, Eon-UK, Scottish & Southern and BP etc.

[13] Decrease of plant efficiency of up to 12-13 percentage points depending on technology employed.

increase the use of resources, it is imperative that CCS be coupled with efficiency improvements.

Developing clean and efficient power plant technology and CCS will also offer European industry a global competitive advantage, as many of the technology providers are European.

5. Encouraging innovation: a strategic European energy technology plan

No single energy technology or fuel can provide the solution to Europe's energy challenges and therefore EURELECTRIC favours a balanced approach to research and development covering a broad range of energy technologies. EURELECTRIC supports a strategic European energy technology plan.

EURELECTRIC fully agrees that it is vital to develop and deploy new energy technologies to ensure security of supply, sustainability and competitiveness in the long run.

Europe needs an ambitious, balanced and well-coordinated R&D policy, backed by sufficient funding and with the full participation of research centres, energy suppliers and energy consumers. Energy efficiency, renewable energy technologies, clean fossil fuels and nuclear power all have a role to play in the energy mix and therefore R&D efforts must be made right across the board. EURELECTRIC welcomes the broad involvement of technology platforms, stakeholders and decision-makers envisaged in the Green Paper. We would like to reaffirm our support and commitment to the Technology Platforms for "Zero-emission fossil fuel power plant" and "SmartGrids", in which EURELECTRIC has been closely involved.

It is important to stress that R&D support should aim to bring technologies to commercial maturity, while additional support schemes should help technologically mature technologies penetrate the market, where there is a need and justification. Overlaps between these two support routes should be minimised.

It must be recognised that Europe needs not only new technologies but also further development of existing technologies that are able to deliver also in the short to medium term. For instance, large CO_2 savings can be achieved by improving the efficiencies of conventional fossil-fuel fired power plants[14] and therefore the development of cleaner fossil-fired plants should be a priority. Export of clean coal, nuclear, hydro and wind technology is more likely to create worldwide commercial opportunities than some of the more speculative technologies.

EURELECTRIC would question the statement in the Green Paper about high entry barriers for new technologies. As examples of positive development of new technologies, wind generation and CCGT capacity has been widely developed in recent years.

The proposed strategic energy technology plan, provided it contributes to better coordination and greater consistency in European research, is most welcome.

[14] Up to 250 million tons of CO_2 a year, assuming replacement of all coal and lignite plants with state-of-the-art technology.

6. Towards a coherent external energy policy

The goal of Europe's external energy policies must be to ensure a secure and affordable supply of primary energy for Europe. EURELECTRIC fully supports the Commission's intention to strive for a more coordinated approach to external policies, with energy issues properly integrated. This will also prove vital when a global effort is sought for combating climate change. EURELECTRIC welcomes moves to build a new enhanced energy partnership with Russia and other major energy-producing countries.

Diversifying energy supplies

EURELECTRIC believes that European policy should contribute to the diversification of external energy sources and supply routes as the key vehicle to ensure secure energy supplies to Europe. The EU institutions have a role alongside national governments in fostering good relations with energy-producing and consuming countries and promoting favourable investment and market conditions. This should facilitate EU companies' access to external energy sources.

Integrating energy into external policies and speaking with a common voice

EURELECTRIC supports the Commission's aim of making energy an integral part of EU external policy. Security of supply is today a key policy issue for Europe, as demand for energy steadily increases while Europe's own energy resources diminish. Europe has to compete for energy resources with other energy consuming regions in the world, such as the US, China and India.

Climate change should also be a key element in external relations policy, with focus on knowledge transfer, organisational schemes, technology and financial resources. In particular, it is crucial that agreement be reached with other major emitters of greenhouse gases at a global level, to avoid excessive burdens being imposed on European industry. Without this, Europe's competitiveness is likely to be seriously damaged.

A common European energy voice on energy issues would be beneficial, but equally the EU must be realistic about its scope to influence events and must add value to the efforts of individual Member States. A more coordinated approach should be developed in a pragmatic way, building on previous results, starting by identification of concrete and clearly defined areas in which Community action can be better suited to achieving results.

Energy partnerships

EURELECTRIC is in favour of deepening the dialogue between the EU and all major energy producing regions, including Russia and the OPEC countries. EURELECTRIC also supports the Commission's emphasis on closer links with the Caspian and Mediterranean countries. In order for these discussions to be successful, EURELECTRIC believes that it would be beneficial to analyse and draw the lessons from the current EU-Russia dialogue.

Partnerships, which can provide mutual benefits for both parties, should be one of the key instruments in the energy dialogue. Partnerships should be developed with neighbours, producers and transit countries. Greater interdependence and mutual investment should help to encourage more collaborative relations between energy producers and consumers, thus reducing risks to supply security. Europe should aim to promote open and stable energy markets based on stable regulatory frameworks which will promote investment.

EURELECTRIC welcomes moves to build a close energy partnership with Russia, including a legally binding agreement for electricity trade based on reciprocal access to energy markets.

This should include mutual respect for investment-protection, the rule of law and transparency requirements. Reciprocity should apply not only in relation to market rules but also to environmental and nuclear safety standards.

Given the likelihood of increasing trade in the future, EURELECTRIC and the Electric Power Council of the CIS Countries have jointly agreed on road maps to align the market and environmental regulatory frameworks of both parties. EURELECTRIC suggests that these road maps be used as a basis for further actions by the authorities.

Pan-European energy community

EURELECTRIC supports the idea of a pan-European Energy Community treaty provided that it contributes to greater integration of the internal market and helps to extend the 'common regulatory space' to the EU's energy partners.

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From: TREN ENERGY GP
Sent: vendredi 22 septembre 2006 8:59
To: TREN MAIL
Cc: (TREN);
Subject: FW:
Attachments: EU GREEN PAPER-comments-logolla.doc

DG TREN	CODE:					
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ACTION.	ECHEANCE:					
22. 09. 2006						
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-----Original Message-----
From: [redacted]@energia.fi]
Sent: Thursday, September 21, 2006 4:36 PM
To: TREN ENERGY GP
Subject:

Please, find enclosed the opinion of the Finnish Energy Industries to the EU Green Paper. I will also bring a paper version with signature to the public hearing on 22 September.

Kind Regards

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21.9.2006

EU GREEN PAPER ON A EUROPEAN STRATEGY FOR SUSTAINABLE, COMPETITIVE AND SECURE ENERGY (COM(2006) 105 final)

OPINION OF THE FINNISH ENERGY INDUSTRIES

The Finnish Energy Industries ET welcomes the Commission's initiative to launch a broad debate on European energy policy and strategy with the Green Paper. We understand that the Green Paper expresses different operations and policy models, but nothing is fixed yet.

Developing a European energy policy is a long term challenge and the work must continue rapidly. A good foundation for the work will be a regular Strategic EU Energy Review suggested by the Green Paper and covering the issues identified in it and also other relevant energy issues.

ET also welcomes the fact that after the European Commission set out the basis for the European energy policy in the Green Paper the Commission has committed to present a Strategic European Energy Review to the European Council. According to Commissioner Piebalgs the Review will form part of a package which the Commission will adopt at the start of 2007. At its best, the Review will include a long term and pragmatic energy policy framework; with a clear Action Plan taking into account all energy policy goals, such as competitiveness, security of supply and environment, harmoniously.

There are many challenges listed in the Green Paper: urgent need for new energy investments, rising EU's dependency on imported energy, increasing global energy demand, rising fuel prices, climate change, etc. Growth and employment goals of the Lisbon Strategy should also be added explicitly in the list of challenges. The overall target of better regulation should be taken into account in all decision-making with the dimensions of European competitiveness, security of supply and environment.

In the Green Paper a variety of new bodies are proposed to the energy field. Generally, ET is critical concerning the idea to create new EU energy bodies. New bodies are not a solution as such, but they might increase bureaucracy and inefficiency. Instead of new bodies the present organisations should be developed as well as their duties and cooperation increased if needed. However, if a new body is to be founded, it must be ensured that real value added is delivered and duplication with existing bodies is avoided.

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National versus European energy policy

No doubt, Europe needs more coherent energy policy. However, it is unrealistic and not even desirable to try to replace national energy policies by a single European one. We need more EU-level coherency on policy areas, where it will add value. On the other hand, for example the energy mix of a Member State should be decided at the national level, and all the options should be open.

In the EU Constitution (not yet ratified by all Member States) a new legal basis is created, allowing the adoption of laws or framework laws establishing measures relating to energy policy, without affecting Member States' choices between different energy sources and the general structure of their energy supply (energy article III-256). It is stipulated that such laws or framework laws are without prejudice to the other provisions of the Constitution, in particular those on the internal market. The article also states that measures which are primarily of a fiscal nature are to be adopted by a European law or framework law of the Council, acting unanimously.

According to the first paragraph of the article the Union policy on energy shall aim to ensure the functioning of the energy market, ensure security of energy supply in the Union, and promote energy efficiency and energy saving and the development of new and renewable forms of energy. These targets are well in line with the national energy policy of Finland as well as with the energy policy goals of the Finnish Energy Industries. However, we strongly emphasize the national and energy companies' sovereignty to decide the used primary energy sources and the structure and forms of electricity and heat production. In fact, it must be one of the basic principles of the more coherent EU energy policy.

Competitiveness and the internal energy market

Energy for growth and jobs in Europe: completing the internal European electricity and gas markets

Electricity markets have significantly progressed since the introduction of liberalisation but they remain in transition and additional steps still need to be taken towards an integrated pan-European market.

As a prerequisite for any further development is that the 2003 liberalisation package is implemented effectively in all the Member States. Key areas are the non-discriminatory and more transparent behaviour of TSOs in their daily operation and stronger cooperation between them. In addition to this, cross-border capacity must be developed and internal bottlenecks must be eliminated as far as it is economically reasonable and cost-effective.

ET does not support the idea of the European energy regulator, but it welcomes clearly stronger cooperation between regulators.

However, concerning Europe's industrial competitiveness, economic growth and jobs the target in this point might be too much in completing the internal market. Besides completing the internal market the focus should also be in, how to meet growing demand of electricity and to replace existing old plants and at the same time ensure the optimal diversified energy mix at the European level. On the other hand, many parallel or overlapping economic instruments together with poor regulation are increasing the prices. For example, network of emissions trading scheme, energy taxation, different certificate systems and feed-in tariffs are all pushing the prices up.

During next few decades Europe needs huge new investments in energy infrastructure and generation capacity. Long term stabile and foreseeable energy policy at EU and MS level together with functioning and transparent energy market ensure energy investments in the long run. In addition, EU and Member States should stimulate energy investments by accelerating authorisation and appeal procedures.

Industrial competitiveness for manufacturing as well as energy industries is a key question for the European energy policy. At present energy price formulation is a complex combination of trade and other global policy, market mechanism and economic instruments. EU can and should have a greater role to ensure open, competitive and functioning energy market in Europe, to ensure that EU speaks with one voice outside EU and to ensure that economic incentives, such as emissions trading, taxes and subsidies are cost-effective, non-discriminatory inside EU and not overlapping with each other.

For example, ETS is an effective tool to boost the use of renewable energy sources. Along with the ETS, renewable energy sources have become attractive and profitable in many countries. Therefore, it has to be analysed case by case, do we need other economic incentives besides emissions trading or not. Economic instruments, which in principle raise the energy prices, such as windfall tax, should be totally avoided.

Solidarity
An internal energy market that guarantees security of supply: solidarity between Member States

Markets need a transparent and predictable framework, and can be supported by monitoring demand and supply patterns. Improving transparency of oil and gas stock levels would be beneficial.

ET is critical concerning the idea to create a European Energy Supply Observatory.

Member States have emergency mechanisms, which up to now have worked well in solving internal supply crises. Most of the EU Member States participate in the IEA and therefore an effective co-ordination system already exists.

Diversification of the energy mix
Tackling security and competitiveness of energy supply: towards a more sustainable, efficient and diverse energy mix

If Europe's electricity supply is to be ensured while at the same time the environmental goals are met, it is vital to keep all primary energy and technology options open for investors. This must ensure equal access to energy sources like nuclear energy, solid fossil fuels, gas, hydro and other renewable energy sources.

Sustainable development
An integrated approach to tackling climate change

A full range of tools is needed to combat climate change. Despite energy efficiency and renewables, in the European energy policy it should be clearly conceded the meaning and possibilities of nuclear power and other zero-carbon sources such as hydropower when fighting against climate change.

In the Green Paper's fourth priority area almost all the measures to combat climate change are mentioned. They include energy efficiency, ETS, renewable energy sources and even carbon capture and storage, etc. But nuclear energy is missing. Why?

CO_2-free nuclear energy has proved to be a power tool to cut emissions in EU as well as in every nation utilizing nuclear energy. The use of nuclear electricity in the EU Member States contributes in saving nearly 700 million tonnes of CO_2 every year. It is equivalent to the annual emissions if the European car fleet or equivalent to the annual value of the emissions allowances of 14 000 million euros (20 €/tCO_2).

Huge losses appear especially in the electricity generation and heat generation in local boilers. Increasing the efficiency of the whole energy system decreases the use of primary energy. The potential to increase the amount of useful end-use energy without increasing the use of primary energy is especially high in heating/cooling and water warming.

The potential to increase the efficiency of the energy system by investing in combined heat and power production (CHP) as well as district heating

and cooling is huge in most Member States. Basically district heating and cooling distribute to households and services part of waste heat from the energy transformation and industrial end-use and thereby replaces primary energy used for heating and hot water preparation in buildings. The efficiency of a modern CHP-plant is around 90 percent.

Global problems require global solutions. The European Union should make it a high priority to persuade other industrialised regions as well as developing countries to take a full part in actions to combat climate change. This is imperative not only for the environment but also for competitiveness reasons. Climate change should therefore be at the heart of European external energy policy together with security of supply.

Innovation and technology
Encouraging innovation: a strategic European energy technology plan

ET supports a strategic European energy technology plan.

The long-term R&D is the only means to satisfy the growing demand of energy in the environmentally acceptable way. That is why Europe needs an ambitious, balanced and well-coordinated R&D policy, backed by sufficient funding and with the full participation of research centres, supply and energy user companies.

External policy
Towards a coherent external energy policy

ET fully supports the Commission's intention to strive for a more coordinated approach to external policies, with energy issues properly integrated. Especially from the Finnish point of view the dialogue between the EU and Russia has a great importance, but also dialogue with other fuel producing countries and OPEC.

ET can support the idea of a pan-European Energy Community treaty provided it contributes to a greater integration of the internal market and extending the 'common regulatory space' to the EU's energy partners.

FINNISH ENERGY INDUSTRIES

Managing director