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Energy in a future Europe

Briefing Note

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Energy challenge in a future Europe

Energy and the future challenges linked thereto have in recent months been high on the agenda of the EU and the challenges are considered by some as one of the biggest issues of the 21st century. The discussion covers a number of issues that do not stand alone, but are inherently interlinked.

The present note aims to briefly outline some of the central issues for the EU and to bring out some of the current main lines of discussion.

- The Commission **green paper** serves as a basis for the current discussion but is it ambitious enough?
- Will the current concerns on **security of energy supply** be handled by new initiatives or will increased dependency and lacking diverse energy mix outweigh the efforts?
- **Market liberalisation** has been initiated but does it deliver the desired results?
- **Biomass/bio-fuels** are promoted as an alternative to traditional fuels and an option to diversify the energy mix, but will they lead to environmental improvements?
- The **European emission trading scheme** was welcomed by the market but have governments been too generous in allocating permits?
- The Commission sets out to tackle the current energy issues in the new **European High Level Group** but will it work as an efficient and democratic policy making mechanism?

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

Rising oil and gas prices, Europe's increasing dependency on a few external suppliers (mainly OPEC and Russia) and the emergency of global warming has restarted the debate on the need for a European energy policy. The initiative to debate this was first taken at high level during the British Presidency in 2005 and agreed at the Hampton Court European summit.

In March 2006, the EU Commission followed up with the adoption of its Green Paper¹ in response to the request from the European Council. The Green Paper is only a first step and consultation is ongoing. However, the Green Paper includes some specific suggestions with the goal of achieving "sustainable, competitive and secure" energy supplies in the EU, listing six key priority areas:

1. Completing the **internal energy market for gas and electricity**.
2. Promoting **solidarity** among EU Member States in situations with supply disruptions, with the creation of **gas stocks** along the existing compulsory **oil stocks** required by EU legislation. A **European Energy Observatory** has been suggested to improve transparency in demand and supply. .
3. Increased diversification of the EU's **energy mix** whilst respecting diverging national choices on energy policy. A regular '**Strategic EU Energy Review**' would analyse the impact of national energy policies on other EU countries, with possible subsequent action at community level in case of conflicts.
4. Addressing global warming via a proposed new **road map for renewable energy**, including targets for 2020 and beyond. An **energy efficiency Action Plan**, to be proposed later in the year (originally due March/April).
5. A **strategic energy technology plan** to "prevent overlaps in national technology and research programmes" and ensure EU industries lead the multi-billion market for new energy technologies.
6. A **common external energy policy** to co-ordinate relations with external suppliers such as Russia and OPEC countries. The policy is to contain a list of new **pipelines** and Liquefied Natural Gas (**LNG**) terminals to improve security of supply. A revamped EU-Russia energy dialogue would include the prompt signature by Russia of the Energy Charter Treaty.

The Green Paper was generally received positively but it has been criticised, by some, for the lack of prior consultation and by others of not being sufficiently visionary².

EU heads of states and governments broadly endorsed the Commission's proposals at their annual spring summit on 24 March 2006. However, several countries repeated their stance that EU action should not impinge on national sovereignty, especially on the choice of energy mix. The idea of a **single European energy regulator** was furthermore rejected by the summit as being premature. The heads of state considered raising targets for renewable energy to 15% by 2015 (currently 12% by 2010) and biofuels to 8% by the same date.

¹ Commission Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy COM(2006) 105 of 8 March 2006.

² Eurochambers and EPSU made comments on the consultation, whilst *inter alia* EWEA, WWF, ETUC and CEFIC have made comments on the scope.

Security of energy supply

Securing the European energy supply has been a long-standing concern of the European Parliament. The EU dependence on energy imports and the changing levels of oil prices are amongst the factors that contribute to ensuring the subject remains high on the Parliament's agenda. Recently this has been emphasised in the plenary session debates on the Annual Policy Strategy in May 2006 and the debate on the Security of energy supply in the EU. This last debate focussed intensely on the diversity of supply and the availability in the EU of nuclear, renewable and clean air technology. As commissioner Piebalgs said in his closing remarks after the debate: "*the most competitive advantage will not only be energy efficient, but will also be capable of managing demand. Otherwise with the best diversification, we will not be sustainable*"¹. The predicted evolution of the EU-25 energy system will necessarily depend upon several key assumptions such as:

- World energy prices
- EU share of energy supply
- EU-25 macroeconomic activity and energy demand
- Technological developments in the energy supply sectors
- Energy and environmental policies (including policy commitments and regulations on climate change/emissions).

Trends will be influenced by the current and expected changes in EU-25 reserves of fossil fuels (mineral oils, natural gas, coal), nuclear energy (uranium, thorium, plutonium) and alternative/renewable forms of energy (methane hydrates, geothermal processes, biofuels, hydrogen, water, wind). However, it will also be of key interest to establish how technological developments will impact upon the EU-25 energy system and policy options regarding energy supply (e.g. hydrogen, fuel cells, carbon sequestration, energy efficiency etc.).

The ITRE committee has commissioned an extensive a study on "Security of Energy Supply - Potentials and Reserves of Various Energy Sources; Technologies Furthering Self-reliance, and the Impact of Policy Choices" which should be available in September 2006².

Demand and dependency

Despite the improvement of energy intensity and efficiency, analyses indicate a likely increase in European energy demand due to ongoing economic growth. The growing EU energy economy is foreseen to become increasingly reliant on energy imports - reaching around 67% in 2030³. Today the EU imports 49.5% of its energy. EU energy demand rises by 1-2% per year⁴. Other regions like Asia and the Americas have an even higher increase in energy demand increasing competition for energy sources globally. Commissioner Piebalgs in a speech on 10 May 2006 phrased it as "*consuming two barrels of oil for every new barrel discovered*". The cooperation and dependency on energy producing countries is therefore a central issue in the current debate. This is also why the new treaty for the South East Europe

¹ See also Annex II for more on these dossiers.

² See Annex I.

³ European Energy and Transport - Scenarios on Key Drivers 2004. The Commission in its Green Paper even refers to 70% import, and European Parliament has operated with similar estimates.

⁴ Fuelling our Future - Green paper for a European Strategy for Sustainable, competitive and secure energy. Commission DG Energy and Transport, March 2006.

energy community is a crucial corner stone for the future. The European Parliament regrets however that it was only involved in the final process in adopting the treaty¹; a factor that was brought to everyone's attention in the beginning of 2006 with the Russian Gas crisis (see below). One way to reduce dependency is of course to reduce the increase in energy demand, which is part of EU policies, however, it is generally believed to be difficult to substantially slow the increase in demand, let alone stop it.

The Ukraine-Russia gas dispute

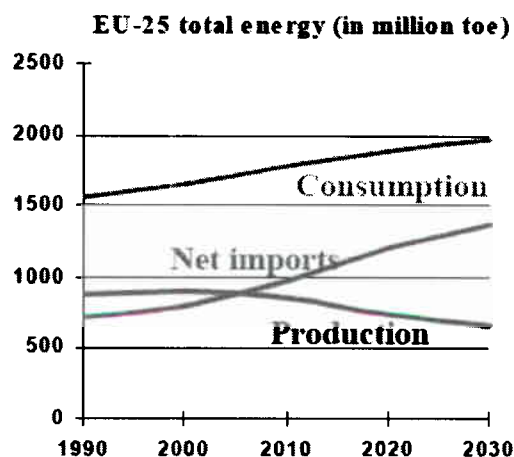
The Ukraine-Russia gas dispute in January 2006 highlighted Europe's dependency on imports and on the shortcomings of maintaining 25 separate policies with external energy suppliers². When Russia raised the price of natural gas it could be viewed as a transition to market conditions, replacing a system of prices traditionally subsidised significantly to below world market prices. The lower prices had probably slowed the Newly Independent States' move away from dependence on natural gas imports from Russia³. Interestingly however, Russia's price increases differed for different countries, for instance causing drastic rises in prices for Ukraine but no increase for Belarus or Azerbaijan. This shows that the gas price has also become a political tool.

31%	Domestic prod.
25%	Russia
18%	Norway
14%	Algeria
11%	Others
1%	Libya

Source: ENI estimates.

The ongoing bilateral EU-Russian energy dialogue (launched 2000)⁴ is of course influenced by the dispute, as the EU has a high energy dependency (both gas and oil) on Russia. It should however be kept in mind that EU at the same time is the main economic partner of Russia, which gives a certain interdependence if the EU acts in unison. Encouraged by the G8, the EU is keen to see Russia sign the Energy Charter and the Transit Protocol⁵. The existing EU-Russia co-operation agreement is due to expire at the end of next year and discussions on the successor are ongoing⁶.

Concerns dominated an energy security debate between American and EU politicians and business leaders during the first annual Brussels Forum on 30 April 2006. The comments made by Gazprom's Alexei Miller and Russia's President Putin that Russia may start looking to the US and China for its gas deliveries if the EU were to erect barriers to Gazprom's further expansion added to Europe's fears. Reflecting the EU's dependence on cooperation with Russia, Commissioner Piebalgs advocated a cooperative, instead of a confrontational approach towards Russia: "*The EU*



Source: Commission Green Book, explanatory memorandum, March 2006

¹ European Legislative resolution on the proposal for a Council decision on the Conclusion by the European Community of the Energy Community Treaty, AVC/2005/0178. See also Annex II.

² The European Parliament has expressed its opinion on this *inter alia* in connection with the resolution on security of energy supply in the EU, RSP/2006/2530. See also Annex II.

³ According to the European Voice Russia provides as much as 60% of gas supplies to some Member States (24-31 May 2006).

⁴ See euractiv on the EU-Russia dialogue, and Annex II for the European Parliament position on the dialogue in resolution on EU-Russia relations, INI/2004/2170.

⁵ See footnote 1 above, and Annex II.

⁶ European Voice 24-31 May 2006, p. 3.

should rather help Russia with the necessary investments upstream". The US seem to take a more critical view at Russia's new geopolitical use of energy-issues.

In sum, the Russia-Ukraine crisis gave urgency to resolving some central questions in the EU security of energy debate, namely how to agree on a choice of new energy partners in order to obtain a better geopolitical spread in the EU energy import - including concluding good new partnerships for the EU, besides Russia¹, for both production and transit. It further leads to the question of how to tackle between Member States the needed investment in maintenance and alternative chains of distribution (pipelines, LNG terminals/ports)².

Energy mix

Linked to the dependency on energy producing countries is the issue of the combination of energy types. Currently over 80% of our energy use is based on oil, gas and coal, and the share of these fuels is rising, as growth in use of renewable energy is slower than increase in demand. The central issue is to identify ways of obtaining a better and more versatile energy mix that may reduce exposure to geopolitical changes³.

To achieve diversification in the energy mix of course requires identification of the sources of energy available in sufficient quantities to make a real impact on consumption and the EU energy imports and what price the EU is willing to pay for these secondary energy sources. But, it is also a question of reaching a certain level of coordination between Member States and of balancing the environmental consequences of changes in the energy mix. Currently, the discussion revolves around how best to balance security of an increasing energy demand with both competitiveness and environmental protection.

Interestingly, the question of nuclear energy has also reentered the debate after several years on the back burner. An example is when British Prime Minister Blair recently caused controversy saying that nuclear power together with renewable energies and energy efficiency was "*back on the agenda with a vengeance*".

The European Parliament is currently exploring some of the available routes with two STOA studies on aspects of diversification entitled "Overview of sustainable energy sources" and "Alternative Technology Options for Road and Air Transport" (see Annex I). Doubtlessly, both awareness-raising and further research will also have to be conducted in this field⁴.

¹ These issues are in part discussed in the Energy Green Paper, key issue (3) on Solidarity, and issue 6 on common external policy.

² Keith C. Smith, CSIS, speaking in European Parliament on 27 April 2006. Hans van der Loo, Shell, advises simplification of rules to aid investments.

³ The issue is in part discussed in the Energy Green Paper key issue (6) on a better combination on the energy consumption.

⁴ In the Commissions proposal for the 7th Framework Programme €2,931 billion were earmarked for energy research. ITRE adopted a proposal for €2,385 billion on 30 May 2006. The Sustainable Energy Europe 2005-2008 Campaign is a European Commission initiative in the framework of the Intelligent Energy - Europe (2003-2006) programme (that has a total budget of €250 million), which aims to raise public awareness and promote sustainable energy production and use among individuals and organisations, private companies and public authorities, professional and energy agencies, industry associations and NGOs across Europe. The Intelligent Energy is foreseen to be integrated into the CIP programme 2007-2013 with a budget proposed of €657 million.

Energy efficiency

In the field of energy efficiency, several measures have already been adopted and supported by the European Parliament as part of efforts to improve energy savings at EU-level: a directive on the energy performance of buildings¹, a directive promoting the combined generation of heat and electricity², a directive to make increased energy savings from domestic appliances (fridges, hairdryers, etc.)³, a directive to increase energy savings when supplying and distributing electricity, gas, heating and fuels to households, transport and other industrial consumers⁴.

However, many efforts in the improvement of energy efficiency so far are to be offset by the growing levels of energy consumption, particularly in the transport sector⁵. On 22 June 2005, the Commission published a Green Paper on Energy Efficiency⁶ putting forward a series of ideas for discussion that could save Europe 20% in energy consumption by 2020 and save 60 billion euro per year on its energy bill. Housing and transport are the sectors highlighted as those where the saving potential is the greatest. An EU action plan was expected to be published in spring this year following a public consultation on the topic.

On 31 May 2006, the Parliament adopted an own initiative report on the Green Paper⁷, where it stressed that improving energy efficiency in the EU constitutes one of the priorities in energy policy and that efficiency is the greatest, fastest and cheapest reaction to energy security worries, rising and volatile energy prices and environmental concerns. It also calls for the Commission to introduce new measures in its forthcoming action plan.

Structure of the Energy Markets

Liberalisation of the energy market with the aim of tackling the inefficient monopolized markets of the past began in 1996 and 1998 with the first electricity and gas directives, representing an important step in the creation of an internal energy market. As further measures were deemed necessary in order to complete this market, the second electricity and gas directives were adopted in 2003, seeking to achieve the full opening of the markets for non-household gas and electricity customers by 1 July 2004 and for all customers by 1 July 2007.

Liberalisation of the energy market is meant to increase efficiency in the production, transmission and distribution of energy, to reinforce the supply security and the competitiveness of the European economy while at the same time respecting environmental standards – however, the reality in the sector paints a different picture.

¹ adopted in 2002 (implementation due as of 2006).

² Cogeneration Directive adopted in 2004 (already in force).

³ Eco-Design Directive, adopted in July 2005.

⁴ Energy Efficiency End-use and Energy Services Directive, Adopted in December 2005.

⁵ European Environment Agency (EEA): Report "Transport growth - an environmental dilemma for Europe", (March 2006). It is likely that car makers will fail to achieve the target set in the voluntary agreement of selling cars emitting in average of 140 g per km by 2008.

⁶ Green Paper on Energy Efficiency COM(2005) 265 final (June 2005) «Doing more with Less».

⁷ INI/2005/2210 - due for adoption 31 May 2006, See Annex II.

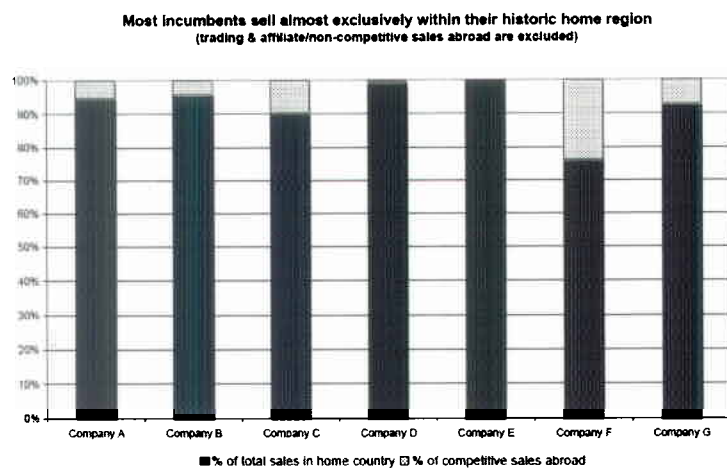
The preliminary report on a Commission enquiry into the energy sector published in February 2006¹ reveals serious malfunctions and real distortions in the market for industrial consumers and genuine concerns remain regarding the development of wholesale gas and electricity markets, let alone high prices and limited choices for consumers.

Market Concentration

Most gas and electricity markets remain highly concentrated with very few new entries into the market. This reflects the old market structures of national or regional monopolies or oligopolies. Incumbents often retain a firm control of the market within their traditional territory. Some electricity operators control prices in the wholesale market, while in the gas sector, incumbents tend to control imports and/or domestic production².

Vertical Foreclosure

New entrants are largely prevented from entering the market, as incumbents are often vertically integrated acting at several levels of the supply chain, e.g. they operate simultaneously at network, wholesale and distribution level. Markets are characterised by long-term contracts and a lack of liquidity. A particular problem is the strong link that often exists between incumbent wholesalers and network companies as inadequate unbundling is an important obstacle to market entry.



Source: Energy Sector Inquiry.

Market Integration

Gas and electricity markets are still largely national. In the gas market, for instance, new entrants have difficulties securing transit capacity on key routes. Incumbents have secured long-term control over the pipelines in contracts dating back to pre-liberalisation times. The situation is further complicated by ineffective congestion management mechanisms on transit pipelines. In the electricity sector there is an overall lack of inter-connector capacity. Capacity is not fully available to new entrants due to long-term historic capacity reservations and inefficient congestion management mechanisms.

Transparency

Access to information is crucial to establish a level playing field. However, there is an "endemic" (as Commissioner Kroes put it) lack of transparency in the markets as competitors and consumers do not receive timely and reliable information. In the gas sector, network users need more transparency on access to networks, transit capacity and storage. In the electricity sector, users request more information on technical availability of inter-connectors, transmission networks, generation, balancing, reserve power and load.

¹ European Commission, Competition DG: Energy Sector Inquiry – Draft Preliminary Report; http://ec.europa.eu/comm/competition/antitrust/others/sector_inquiries/energy/pr_1.pdf.

² The European Commission as late as 30 May 2006 has confirmed inspections in the German energy sector with suspicion of violation of antitrust rules that prohibit restrictive business practices (memo/06/220). It has opened infringement cases against 17 Member States for lack of transposition of the Directive (Piebalgs speech, Poland 30 May 2006).

Price Formation

A key issue relates to how prices are set. There may be several causes for the price rises in recent months; however, anticompetitive practice may be one of the reasons. Many energy consumers consider that electricity prices on spot and forward markets do not result from fair competition while gas prices in most long-term contracts are linked to oil or oil derivatives. These contracts fail to react to changes in demand and supply of gas.

Grandfathering rights

The remaining "grandfathering rights" of incumbent companies represent a further barrier to entry for new suppliers as capacity on bottlenecks such as pipelines can be reserved by the incumbents and thus not be made available to new entrants.

Market Bundling

The bundling of generation, supply, pipelines/grids and distribution has as a consequence that owners and operators of critical networks often compete with companies that need to have access to these same networks. Such integrated companies might not treat their competitors in a fair manner.

Completing the internal energy market will be pivotal in achieving the EU's objectives for a secure, sustainable and competitive energy sector. Here, liberalisation and competition policy must work hand in hand. Deregulation opens the market while competition policy must make sure that the market really works.

Case study

Recently, two large mergers in the energy sector¹ have captured headlines and highlighted loopholes in the Commission's current regulation on mergers. National mergers present a problem: whatever the size and relevance for the European market of the entities wanting to merge, if each partner generates more than 2/3 of its turnover in one Member State, it is the national authority in this Member State which has to authorise the merger and not the Commission, which is why the merger of EON and Ruhrgas was dealt with in Germany even though it has significant implications for the European market and why the Commission had to withdraw from the Gas Natural/Endesa case.

It remains to be seen to what extent the competition policy tools available to the Commission will be effective in bringing about an internal energy market. The Commission has certainly made it clear that it is committed to using its tools to the full.

Renewable Energy Sources and Biomass / Biofuels

Renewable Energy Sources (RES)

The EU's Renewables Directive¹, in place since 2001, aims to increase the EU's share of electricity produced from RES to 21% (up from 15.2% in 2001), thus contributing to reach the overall target of 12% of energy consumption from renewables by 2010. At the current rate, it appears² that only 18 or 19% would be achieved instead of the 22% foreseen. Only Germany, Denmark, Finland and Spain are set to meet their targets. Additional investments from 15 to 20 billion EUR are required to meet the 12% target.

¹ Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market.

² EC Communication on The share of renewable energy in the EU, COM(2004) 366, of 26.5.2004.

According to the latest Commission's communication¹, barriers to further increase result from EU member states not giving enough support to green electricity: social and financial obstacles are the main deterrents as well as administrative barriers and lack of transparency in grid access.

The European Parliament, in its resolution of 29 September 2005², calls for even more ambitious targets in support of European climate and security-of-supply objectives: 60% of EU electricity demand by 2020 should be supplied by ultra-low or non CO₂ emitting and CO₂ neutral energy technologies. A 20% target for RES would set the EU as a world leader in renewable energies. The EP has called on the Commission to come up with new legislative initiatives in the area of renewables to put an end to market distortions penalising the production of renewable energy. Moreover, Parliament's resolution of 15 February 2006 asked the Commission to submit a legislative proposal on increasing the share of renewable energies used in Europe for heating and cooling³.

As part of the policies on RES, the promotion of biomass/biofuels is currently high on the agenda as highlighted below.

Biomass/biofuels

In December 2005, in the light of higher oil prices and the urgency of a new debate on security of energy supply, the Commission presented a "Biomass Action Plan"⁴. The main focus is encouraging greater production and use of biomass energy to replace fossil fuels and reduce greenhouse gas emissions.

The EU already promotes the use of biofuels as an energy source for transport⁵ and has set itself a target of increasing the use of biofuels in energy consumption to 5.75% by 2010. In February 2006, it followed up with "An EU strategy for biofuels"⁶ to address several technical and non-technical barriers that could make this target difficult to achieve and to prepare the ground for a review - by the end of 2006 - of the biofuels directive (to include mandatory targets instead of the indicative ones set in 2003) and of the EU fuels quality directive (to allow increased blending of biofuels with petrol and diesel).

Advantages and disadvantages of using biomass/biofuels

The advantage of using biomass/biofuels lies in their generally lower emissions of greenhouse gases and their domestic abundance and availability, unlike oil and gas. The domestic production of biomass/biofuels could also help European farmers tackle the reform of the Common Agriculture Policy as they offer new income and employment opportunities.

Energy balance

It appears that biofuels provide more energy than is needed for their production. However, after 27 years of bio-fuel industry developments worldwide, there is still some controversy over the energy balance of biofuels production. Research results in this field are still contradictory and depend widely on the type of crop and the production techniques.

¹ EC Communication on the support of electricity from renewable energy sources, COM(2005)627, of 7.12.2005.

² EP resolution: The share of renewable energy sources in the European Union: proposals for concrete actions (INI/2004/2153) Turmes Claude (Greens, LU). See Annex II for more information on this dossier.

³ EP resolution with recommendations to the Commission on heating and cooling from renewable sources of energy (INI/2005/2122). See Annex II for more on this dossier.

⁴ Communication from the Commission "Biomass action plan", COM(2005) 628 of 7.12.2005. See also Annex II.

⁵ In 2003, the EU adopted Directive 2003/30 EC on the promotion of the use of biofuels.

⁶ Communication from the Commission "An EU Strategy for Biofuels", COM(2006) 34 of 8.2.2006.

Climate change

In principle, biofuels are "carbon neutral": no more carbon dioxide is released when they are used than has been absorbed during the growth of the plants. Therefore replacing fossil fuels with biofuels for transport could help fight climate change. But some studies¹ claim that the use of biofuels may in reality increase greenhouse gas emissions as land would be converted from forests, wetland and reserves for conservation to grow more corn or soya beans.

Environmental impacts

The use of biofuels could reduce air pollution or waste. On the other hand, their use could lead to the increased use of fertilisers and pesticides to grow crops, risking reduced biodiversity and degraded soil quality. Growing energy crops for export could lead to more deforestation in developing countries. Using agricultural land to grow energy crops would compete with the use of land for food and animal feed production: to reach the 5.75% target of the biofuels directive, biofuels crops would take up 4% to 13% of the total agriculture area of the EU-25².

Costs

Biofuels are more expensive than traditional fossil fuels. Therefore, tax exemptions are needed to make biofuels competitive with fossil fuels. The second generation biofuels promise to be cheaper but are still under development. In some countries like Brazil, biofuels can be produced at cheaper prices. The EU has the largest production of bio-diesel and Germany, France, Sweden and Spain are the leading countries in the use of biofuels for transport.

Policy issues currently at stake

The Agriculture Council of 20 February 2006 held a first policy debate on the Biofuels Strategy and the EU's Biomass Action Plan. Ministers were divided on issues such as the level of imports from non-EU countries versus domestic production and the CAP-related energy crops system, which new Member States cannot use now. Big agricultural producers such as France and Poland want to offer support to EU producers, which they say would also enhance security of energy supply. Likely net importers, including the UK and Denmark, want the plan to focus more on creating global markets for biofuels supply.

An own initiative report on the Biomass Action Plan, is scheduled for adoption in the ITRE Committee in October 2006 with opinions from the ENVI, INTA, TRAN and AGRI. In addition, ITRE has arranged a public hearing on "Strategy for Biomass and Biofuels" on 1 June³ 2006.

Key questions remain: how far should the EU address production, especially of crops for transport biofuels? Should the EU stimulate the production of biofuels in the context of the future Common Agricultural Policy or should it boost cooperation with third-countries? How can the sustainability of the production and use of biofuels/biomass and gas emission savings be guaranteed? How should research in technologies for the application of alternative biofuels be supported?

¹ Study by Mark Delucchi (Dec 2003).

² Data from the European Environment Agency.

³ See Annex II for more on the own-initiative report and Annex I for more information on the work shop.

In the latest own-initiative report¹ adopted in February 2006 on the promotion of crops for non-food purposes, Parliament's response was positive towards the promotion of production of energy crops, biofuels, biomass, pharmaceutical crops and speciality chemicals.

Climate Change and the EU's Emission Trading Scheme (ETS)

Most of the CO₂ emissions generated in the EU are attributable to the energy sector and this is having a serious impact on the Earth's climate. To combat climate change, the EU has committed to integrating environmental concerns into energy policies. Among those policies - and to achieve the commitments under the Kyoto Protocol - the first international ETS² was created in Europe in February 2005 with a strong support from the Parliament.

In the most recent resolutions on climate change³, Parliament stressed that the EU strategy on climate change mitigation would require a major transformation of energy and transportation systems and of the thermal design of buildings. The EP called on the EU to develop a strategy to make Europe the most energy efficient economy in the world, by setting targets for annual reductions in energy intensity in the order of 2,5-3%. Parliament also stresses the need for vigorously promoting research and innovation for sustainable energy technologies, removing 'perverse' incentives such as fossil fuel subsidies and using legislation to stimulate greater energy efficiency.

ETS first phase - one year results

The first phase of the ETS (2005-2007) sets a cap on CO₂ emissions from energy-intensive industries and allows Member States to buy and sell surplus allocations on an EU-wide market. After one year of functioning of ETS, the first publication of aggregated, externally-verified installation-level CO₂ emissions, measured with a harmonised EU methodology, was released by the Commission, on 15 May 2006⁴. According to the data, the 9,000 or so installations covered by the announcement, emitted 2.5 % less CO₂ in 2005 than allocated to them by governments through national allocation plans.

According to the Commission, it is too early to conclude that Member States had systematically over-allocated allowances. High energy prices, a warm winter and industry caution during the scheme's start-up phase may have been responsible for firms recording lower emissions than expected. However it appears to be more a combination of conservative baseline estimates on behalf of installations and generous allocations on behalf of the government, undermining the aim of the scheme.

Situation in Member States

Despite the overall surplus of allowances, the Commission's figures show that 865 installations failed to buy enough to cover their emissions. Three-quarters of the non-compliant installations are in Italy. Of the 21 reporting Member States, only six recorded emissions higher than initial allocations: Ireland, the UK, Italy, Spain, Sweden and Austria. Companies in the other 15 Member States will have been net sellers of permits. Lithuania, Estonia, Latvia and Finland recorded the biggest surpluses relative to their initial allocation.

¹ Report on the promotion of crops for non-food purposes (2004/2259(INI)) AGRI Committee, rapporteur Neil Parish, of 24.2.2006. See also Annex II for more on this report.

² Emissions Trading Directive 2003/87/EC.

³ See Annex II for more on these resolutions.

⁴ Figures for only 21 of 25 Member States were available; Poland, Luxembourg, Cyprus and Malta have yet to submit data.

Germany recorded the biggest surplus in absolute tonnage terms, 42% of which was due to efforts by industry to reduce emissions and the rest to over-allocation.

Carbon market

Currently the EU ETS is the leading carbon market in the world, accounting for €7.2 billion out of a global carbon market worth €9.4 billion in 2005. It accounts for 45% of EU's CO₂ emissions. The impact of the reports of allowance surpluses in May caused the price of carbon to drop dramatically from more than €30 per tonne to an all-year low at €8.6. However, the change in the price of carbon is proof that the market is working. Volatility will gradually diminish as in other existing emission trading schemes.

ETS Second phase - preparation

By the 30 June 2006, Member States will have drawn up national allocation plans for the scheme's second trading period (2008 to 2012) when the Kyoto targets have to be met. These plans are important climate policy tools, since, collectively, they will determine the total permitted level of CO₂ emissions from installations across the EU as well as how many allowances each installation receives individually. To improve the functioning of the scheme, Member States should improve measurements and reduce the number of allocations granted. To be consistent with Kyoto's targets, allocations should be around 6% lower than the first phase, across the EU-25. Despite surpluses, the Commission said it would not alter its permit allocation guidance for the second phase, but would influence its decisions on second phase allocation plans.

Revision of the ETS

Later this year, the Commission will launch a review of the ETS to see whether adjustments to the scheme's design should be introduced after 2012. The main purpose of the review is to ensure that the scheme - seen across the world as the nucleus of a future international carbon market - delivers emission reductions in the most cost-effective way possible in the medium and long-term.

The Commission is also considering an extension of the scheme to other greenhouse gases and other sectors such as aviation. According to recent studies, the inclusion of aviation in the ETS at an earlier stage is unlikely to substantially affect the demand for credits or the price of carbon. Delays in introduction would create a higher impact and could create incentives for airlines to put off fleet renewal or efficiency improvements until after the introduction of the system.

On 30 May 2006, the ENVI Committee adopted a report¹ in which it supports the tackling of aviation emission through the creation of a separate pilot emission trading scheme for the period 2008-2012, to be included - in the longer term - into the EU ETS. The carbon allocations should be in line with the EU's Kyoto protocol targets and allowances should be auctioned. The report will be adopted in July's Plenary.

¹ Seen Annex II for more information on this report.

High Level Group on Competitiveness, Energy and Environment

In the context of the energy challenges and interplay with the industry and in view of the implementation of the Lisbon Strategy¹ and the publication of a EC Communication on Industrial Policy, on 28 February 2006, the European Commission established a High Level Group on Competitiveness, Energy and Environment. The High Level Group was launched to contribute to examining the links between industrial, energy and environmental policies and ensuring the coherence of individual initiatives, whilst improving both sustainability and competitiveness.

The Group has a mandate for two years that may be extended by a Commission Decision. It brings together the Members of the Commission for Enterprise & Industry, Competition, Energy & the Environment, Ministers, Industry, environmental NGOs, consumers and trade unions representatives.

The **European Parliament** was also invited by the Commission to nominate four representatives to participate. However, at the Conference of the Presidents² it was decided that the European Parliament should not be represented at all and José Manuel Barroso was asked to give more information on the establishment and exact role of the High Level Group.

It is foreseen that the High Level Group will be asked by the Commission to give advice for action on:

- the functioning of energy markets, particularly electricity and gas markets;
- climate change, particularly the emissions trading scheme, energy-efficiency and renewables;
- the implementation of the Thematic Strategy on the prevention and recycling of waste and related legislation;
- the improvement of resource efficiency and the uptake of environmental and other innovative technologies;
- the development and uptake of environmental and other innovative technologies;
- the concrete implementation of better regulation principles.

¹ EC Communication on Industrial Policy of 5 October 2005.

² Decision at the meeting of Wednesday, 15 February 2006.

The first meeting¹ of the High Level Group was held on 28 February 2006 and this was dedicated to energy issues. A second meeting on electricity markets and the Emission Trading Scheme is planned for 2 June 2006 and a third on Lisbon National Reform Plans and renewable energy on 30 October 2006. The High Level Group is also assisted in its debates and advice by a preparatory sub-group (called 'SHERPA') that processes, coordinates and integrates the work of ad hoc groups. So far, four ad-hoc groups of experts, invited by the Commission, have been created, to examine specific questions in relation to priority policy issues and the first meetings were held at the end of March 2006².



/ Karin Hydelund

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Annexes:

- Annex I: Current energy related projects in the European Parliament.
- Annex II: Selected current and adopted reports of the European Parliament on energy matters.

¹ Meeting of 28 February 2006 : Press release, Agenda, Workplan, Meetings planning.

² Ad hoc group 1 :functioning of the electricity and gas markets Mandate and agenda of the meeting of 29th March 2006.

Ad-hoc group 2: the EU Emissions Trading Scheme, Mandate and agenda of the meeting of 30th March 2006.

Ad hoc group 3: Competitiveness of and access to cost-effective energy inputs for energy intensive industries Mandate and agenda of the meeting of 31st March 2006.

Ad-hoc group 4 Energy Efficiency Mandate and agenda of the meeting of 27 March 2006.

Annex I: Current energy related projects in the European Parliament

Hearings and workshops

Strategy for Biomass and Biofuels

A hearing was held by ITRE on 1 June 2006 and chaired by Chairman Chichester, with participation of rapporteur Werner Langen. The hearing has separate panels on a strategy for biomass, a strategy for biofuels and a panel with horizontal views on the challenges and potentials of biomass and biofuels.

Oil price workshop

The hearing scheduled for 28 June 2006 was initiated by the ECON Committee with the collaboration of ITRE. The workshop will cover a range of oil-price related issues, such as volatility of the financial markets, macroeconomic issues and geopolitical and security of supply aspects.

Work-shop on the gas markets

The preliminary scheduling of this workshop is September 2006. The workshop was requested by the ITRE committee and will aim to provide an overview of the characteristics of the main gas markets within the EU single market. The workshop will further aim to discuss pricing structures and consider the impact on the gas market of emission trading and long term contracts.

Hearing on European Energy Markets

On 21 April 2006, the ITRE Committee conducted a hearing on energy prices chaired by Claude TURMES (Greens/EFA, -LU). The hearing was motivated by the increase in prices despite the energy directives, which aimed to liberalise electricity and gas markets in the EU. The recent study on electricity prices was presented at the hearing. Dr. Felix Matthes of the Öko-Institut in Germany drew attention to problems of market concentration and increasing dominance in the power production industry as monopolies limit the success of liberalisation.

Studies

Price setting in the electricity markets within the EU single market

IP/A//ITRE/SC/2005-174 under ITRE/FWC/2005-60

The study was requested by the ITRE committee and delivered by EASAC in February 2006.

Through the legislation implemented at European Union level, the EU will have the most integrated energy market in the world; from 1 July 2007, both the domestic and industrial markets will be fully open. Moreover, the legislation seeks the unbundling of production and supply activities in energy markets. The study aimed to analyse the European electricity market and report on various aspects of it, in particular:

- 1 the characteristics of the main electricity markets within the EU single market
- 2 an assessment of the pricing structures and comparison between markets, showing price trends
- 3 the impact on prices to end-users of emissions trading certificates/allowances
- 4 the impact of long-term contracts on the efficiency of electricity markets.

Two things are identified as clearly desirable: greater cross-border connectivity and the tackling of long-term contracts. The study concludes that it is too early to pronounce on how emissions trading will affect the electricity markets and consumer and wholesale prices, but suggests monitoring for such effects over the coming years. Likewise, it has been difficult to generalise from pricing trends in the market, since recent years have seen deregulation, market liberalisation, fluctuations in global fuel costs as well as a gradual decrease in overcapacity in the market.

Security of Energy Supply - Potentials and Reserves of Various Energy Sources; Technologies Furthering Self-reliance, and the Impact of Policy Choices
IP/A/ITRE/ST/2005-70

The study was requested by the ITRE committee and will be delivered in September 2006. The study will cover three main elements:

- Draw up a baseline summarising existing data on deposits and potentials in primary energy supply along with analysis of current technological developments.
- Conduct several scenario analyses for the EU-25 energy system up to 2030.
- With a view to identifying new policy areas make an analysis of the impact of current and imminent policy *acquis*, the likely trends deriving from the status quo and technological developments and their likely consequences for the EU countries.

Reducing the Climate Change Impact of Aviation: Economic aspects of inclusion of the aviation sector in the EU Emissions Trading Scheme (March 2006)

IP/A/ENVI/FWC/2005-35

The study was requested by the ENVI Committee and was delivered by the IEEP in March 2006. The study reviews the few existing comprehensive studies analysing the effect of the introduction of the aviation sector into the EU Emission trading scheme in economic detail, as proposed by the Commission in its Communication (COM (2005) 459). Furthermore, it provides insights from work on specific aspects of emissions trading system design and the effect on industry, particularly within the aviation sector. In particular it addresses:

- System design factors that influence the cost of CO₂ allowances;
- Volumes of credits potentially traded between aviation and other industries; and
- Pros and cons of a stand-alone system for aviation, compared to an integrated system.

Overview of sustainable energy sources

STOA Specific Contract No IP/A/STOA/SC/2005-176

In 2004, the Danish Board of Technology (DBT) published an Energy Catalogue aimed at decision-makers in the broader Danish energy sector. Based on this example, the aim of the project is to produce a useful tool that could meet the need for overview on renewable energy technologies in an easily accessible form that provides the possibility of comparing technologies. The product will be a European Energy Catalogue describing selected energy technologies based on renewable sources and suitable for European use aimed for advisers, planners and decision makers as help and inspiration regarding the first considerations on projects on renewable energy supplies.

The catalogue will have its main purpose in communicating the state-of-play of the technologies to non-experts, giving an overview on e.g. the state of development and time for competitive development level; the estimated investments and energy prices; potential

production etc. The catalogue will also be produced in order to function as a common knowledge base on renewable energy for further energy analysis by STOA. The catalogue will in an accessible form describe some selected energy technologies that are regarded to be relevant in future energy systems based on a profound element of renewable energy solutions.

Alternative Technology Options for Road and Air Transport

STOA Specific Contract No IP/A/STOA/SC/2005-179

Based on the STOA Working-paper on alternative fuels and other existing TA studies an overview will be delivered on non oil-based technical options for road and air transport. Options are described technically (state of technical development) and assessed with regard to their economic perspectives and their contribution to substitute fossil fuels in transport, including alternative propulsion technologies as well new fuel options. The overview covers, among others, the following subjects suggested by the panel: airplanes on hydrogen, alternative automotive fuels, clean cars. The aim is to satisfy the need for a structured and reliable overview description of technical options in order to support political and practical decisions upon future alternative transportation solutions in a similar methodological approach as the one employed in the Energy Catalogue of the Danish Board of Technology (DBT) published in 2004.

Annex II: Selected current and adopted EP reports on energy matters

Reports on energy to be adopted

A European strategy for sustainable, competitive and secure energy, INI/2006/2113, 2006(COM)0105.

Own initiative report by ITRE, rapporteur: Eluned MORGAN (PSE) and opinion from INTER, ENVI, TREN. (See body of the note for further description of the Commission proposal.)

Authorised on 18 May 2006. The Green Paper challenges the Member States, industry and interested parties to consider whether the EU is ready to develop a common European Energy Policy. The proposed European energy policy would be based on three core objectives:

- 1) **sustainability:** including developing competitive renewable sources of energy, seeking alternative transport fuels, curbing energy demand in Europe and heading global efforts to halt climate change.
- 2) **competitiveness:** opening up the energy markets, stimulating investment in clean energy production and energy efficiency, mitigating the impact of higher international energy prices in the EU economy and securing Europe's position as a cutting edge leader in the development of energy technologies.
- 3) **security of supply:** tackling the EU's rising dependence on imported energy through an integrated approach and to diversify sources of supply of imported energy.

Green paper on Energy Efficiency or Doing More With Less, INI/2005/2210, COM(2005)0265.

Responsible committee: ITRE, rapporteur: VIDAL-QUADRAS (EPP-ED, E), and opinion from ECON, ENVI, TRAN.

Adopted in ITRE Committee on 25 April 2006 and scheduled for the Plenary on 31 May 2006. Improving energy efficiency in the EU constitutes one of the EP's priorities concerning energy policy. The report stated energy efficiency is the greatest, fastest and cheapest reaction to energy security worries, rising and volatile energy prices and environmental concerns. The report also calls for existing legislation in the field to be implemented and for the Commission to develop new measures in its forthcoming Energy Efficiency Action Plan. The report is based on the Communication adopted by the Commission on 22 June 2005. The European Parliament organised a joint meeting with national parliaments of the Member States (plus Bulgaria and Romania) on 24-25 January 2005 on this matter.

The support of electricity from renewable energy sources, COM(2005)627 of 7 Dec. 2005.

Responsible committee: ITRE, opinions from ENVI, ECON. "Officialisation of the procedure in the EP pending".

The European Union aims to have renewable energy sources providing 21% of the electricity by the year 2010 (see Annex 1). This target has been formulated in the Directive 2001/77/EC. The Communication serves three purposes:

- The report that the Commission is required to make under Article 4 of Directive 2001/77/EC, presenting an inventory and the experience gained with the application and coexistence of the different mechanisms used in Member States for supporting electricity from renewable energy sources.
- The report that the Commission is required to make under Article 8 concerning administrative barriers and grid issues and the implementation of the guarantee of origin on renewable electricity.
- A plan for coordination of the existing systems based on two pillars: cooperation between countries and optimisation of the national schemes which will likely lead to a convergence of the systems.

Strategy on Biomass and Biofuels, INI/2006/2082.

Own initiative report by ITRE. Rapporteur: LANGEN (PPE-DE), with opinion by INTA, ENVI, TRAN, AGRI.

Based on 2005(COM)0628 and Commission's Communication on an EU strategy for biofuels COM(2006)0034.

Authorised on 6 April 2006. Scheduled for debate on 17 July 2006 in the ITRE Committee and for vote in committee in October and vote in plenary in November session. The Commission Communication, which supports the "Biomass Action Plan" published in December 2005, sets out an EU Strategy for Biofuels. It has three specific aims: a) the promotion of biofuels in the EU and developing countries; b) to prepare for the large-scale use of biofuels by improving their cost-competitiveness and through the optimised cultivation of dedicated feedstock through research into "second generation" biofuels; and c) to support developing countries who have the potential to harvest biofuels by stimulating long-term economic growth.

Promotion of clean road transport vehicles, COD/2005/0283.

Responsible committee: ENVI, rapporteur: Dan JØRGENSEN (PSE, DK), with opinion from ITRE and TRAN.

The report is scheduled to be adopted in the Committee on the 20-21 June and at the September II Plenary. The objective of the Commission's initial legislative document is to reduce pollutant emissions by the transport sector and to contribute to the establishment of a market for clean vehicles. The clean vehicles procurement obligations introduced by this initiative for public bodies will contribute to a general improvement of the performances of the vehicles put on the market, encouraging manufacturers to invest in the development of cleaner technologies. According to the proposal, public bodies are required to allocate minimum quota of their annual procurements (purchasing or leasing) of heavy duty vehicles to vehicles meeting the Enhanced environmentally-friendly vehicle performance standard "EEV" laid down in another directive. The rapporteur proposes using the EEV standard as a basis for the public procurement obligations, but as that standard is not very environmentally ambitious, to also introduce some stricter limit values. He also wants to extend the scope to include light duty vehicles and to increase the minimum quota obligation from 25% to 35%.

Adopted recent reports on energy matters

Resolution on oil prices and dependence on oil, (B6-0481/2005, B6-0482/2005, B6-0491/2005, B6-0499/2005, B6-0506/2005 and B6-0509/2005)

6 Motions for resolution were tabled by *Chichester & Rübige (EPP-ED), Paasilinna (PSE), Hall (ALDE), Turmes (Greens), Guidoni (GUE) and Angelili (UEN).*

A combined motion for resolution was adopted on 29 September 2005. The resolution states that given the continuous increase in the price of oil and its effects on both businesses and the public, the EU wants to be the least fossil-fuel dependent and most energy-efficient economy in the world by 2020. EP favours switching to alternative energy sources, endorsing the need to promote research and development and the use of renewable energies to help achieve a less fossil fuel-dependent economy. The EP calls for proposals from the Commission on how windfall profits in the oil industry could be used to fund energy saving programmes and related R&D. The EP calls for the Commission to bring forward the European Action Plan on energy efficiency, increase pressure for full implementation of the Buildings Directive and push for agreement on the Energy Services Directive.

Resolution on Security of energy supply in the European Union, RSP/2006/2530.

The European Parliament adopted a resolution on security of energy supply in the European Union on 23 March 2006. The resolution is based on an own-initiative report based on Rule 39.2. The Parliament adopted a joint resolution on security of energy supply in the European Union. The resolution drafted on behalf of the EPP-ED, PES, ALDE and UEN groups, urges the Commission and Council to realise a more resolute European energy policy, with "more concrete measures" and "to come forward with new, ambitious targets". The resolution further:

- Recognises the importance of energy security as one of the three main objectives for EU energy policy. It makes reference to the *"recent disputes over gas prices between Russia and its neighbours"* and *"recent increase in the price of crude oil"*, both of which demonstrated *"the vulnerability of the supply and distribution of energy"*. The Parliament calls on the Commission to strongly react to the market dominance and market imperfections and to submit new proposals for combating market dominance and market imperfections with a concrete set of actions and instruments.
- Calls for closer cooperation between European and national competition authorities in order to give a coordinated and truly European answer to the emerging national economic patriotism.
- In response to the *"difficulties related to the physical security of infrastructure and security of supply"*, emphasises the importance of solidarity within Europe, further cooperation with neighbouring countries and a *"strengthening of the European Neighbourhood Policy"*. It also calls on the Commission to put forward a *"mediation system"* to deal with such cases of dispute over the distribution of energy.
- Considers that imperative to the maintenance of energy security is a *"well functioning internal market"*, therefore it is concerned by *"protectionist support for national market leaders"*, and *"urges the Commission to ensure full implementation of the internal market rules to ensure fair and non-discriminatory competition and avoid the formation of oligopolistic energy markets"*.

On the subject of sustainability energy sources, the resolution *"stresses the exceptional importance of renewable energy sources, along with energy efficiency"*; and therefore asks the Commission and Council to present *"ambitious targets after 2010"* for this area. The Resolution encourages measures to improve upon energy efficiency and promotes conservative strategies to reduce the rate of consumption and *"notes the economic potential of saving a minimum of 20% of energy consumed"* pointing out that *"this potential will rise with energy prices, technological improvements and economies of scale"*. However, the Resolution suggests that Member States should apply the principle of subsidiarity when it comes to policies on nuclear energy as it considers nuclear energy to be *"part of the European debate on the energy mix"*. Parliament recognises the role that nuclear energy currently plays in some Member States in maintaining security of electricity supply as part of the energy mix and as a way of avoiding CO₂ emissions. Finally, the House insists that new strategies should be developed to reduce the possibilities of uranium and nuclear waste being used for the production and proliferation of nuclear weapons. MEPs therefore urge the Commission, the Council and the Member States to give their fullest support to the IAEA proposals to multi-lateralise the supply of fissile material for nuclear energy production.

European Parliament resolution on climate change, RSP/2005/2663.

On 16 January 2006, the EP adopted a B series resolution on the outcome of the UNFCCC Conference of Parties, held in Montreal in December 2005. It welcomed the recognition that there needs to be a new commitment period for Annex I countries to the Kyoto Protocol after 2012 and that there should be no gap between the first and second commitment periods. It evoked two strategic objectives of limiting the average global temperature increase to 2°C above pre-industrialisation levels and undertaking strong emission reductions for developed countries of 30% by 2020 and of 60-80% by 2050.

The resolution called for:

- A detailed exploration of the possibilities being opened up by new technologies, such as renewable energy technologies and carbon capture and storage
- The importance of an integrated EU approach to climate change policy, with sectoral policies on energy conservation and renewable energies, transport, agriculture, industry, research and development etc., complementing rather than contradicting each other and the monitoring of these policies as regards their effects on climate change and for measures to reduce these effects to the level committed to by the EU in the Kyoto Protocol.
- The diversification of EU's energy resources and a switch to alternative, more sustainable and environmentally-friendly types of energy to reduce emissions, dependency on external sources and vulnerability to energy supply crises.

Reducing the Climate Change: Impact of Aviation, INI/2005/2249

Responsible committee ENVI, rapporteur: Caroline LUKAS (VERTS/ALE,UK), with opinion from TRAN.

In the context of a Commission policy paper published on 27 September 2005 proposing capping CO₂ emissions for all airplanes departing from EU airports and allowing airlines to trade their potential surplus 'pollution credits' on the EU 'carbon market', the ENVI Committee adopted a resolution on 30 May 2006. The resolution supports the tackling of aviation emissions through the creation of a separate pilot emission trading scheme for the period 2008-2012, to be included in the longer term into the EU ETS. The carbon allocations should be in line with the EU's Kyoto protocol targets and allowances should be auctioned. The report will be adopted in July's Plenary

Report on the promotion of crops for non-food purposes, INI/2004/2259.

Committee responsible: AGRI, rapporteur: Neil PARISH (PPE-ED, UK).

Report adopted in plenary 24 February 2006. In the report the Parliament calls on the Commission to promote non-food crops in Europe, to increase the Union's production of energy crops, biofuels, biomass, pharmaceutical crops, speciality chemicals and raw materials for the textile and cosmetics industries. The report stresses the importance of making the targets in Directive 2003/30/EC on biofuels obligatory, in order to increase demand for energy crops.

Heating and cooling from renewable energy sources, INI/2005/2122

Committee responsible: ITRE, rapporteur Metchild ROTHE (PSE, DE).

On 14 February 2006, the European Parliament adopted a resolution with recommendations to the Commission on heating and cooling from renewable sources of energy. The objective of the requested proposal is to evaluate and exploit economic potential with the aim of increasing the share of renewable energies used in heating and cooling in the EU from the present level of approximately 10% to a realistic and ambitious figure of at least the double by 2020, with the setting of national binding targets. Benefits would include more secure energy supplies, reduced demand for conventional energy, a cleaner environment and the creation of jobs in new industries. The legislation would provide a framework for national instruments and would fill a legislative gap, as EU strategies already exist for other areas of renewable energy.

European Parliament resolution on "Winning the Battle Against Global Climate Change", INI/2005/2049.

Committee responsible: ENVI, rapporteur: Anders WIJKMAN (PPE-DE).

In the context of the UNFCCC Conference of Parties, held Montreal in December 2005, a resolution was adopted on 16 November 2005. It stresses *inter alia* in relation to energy policy that the EU should:

- Develop a strategy to become the most energy efficient economy in the world, by setting targets for annual reductions in energy intensity in the order of 2,5-3%;
- the abolition of 'perverse' incentives for fossil fuels and the establishment of a positive incentive structure for the enhanced use of energy-efficient, low-carbon and carbon-free technologies;
- Strong measures to reduce emissions from transport including vehicles and the aviation sector;
- Assisting developing countries to adopt national energy strategies so as to minimise their dependence on imported fossil fuels, to promote technology leapfrogging, notably as regards renewable energy, in particular biomass.
- Vigorously promote research and innovation for sustainable energy technologies
- Use legislation to stimulate greater energy efficiency.

The signing by the European Community of the Energy Community Treaty, AVC/2005/0178, COM (2005)0435.

Committee responsible: ITRE, rapporteur: Giles CHICHESTER (EPP-ED, UK), and opinion from AFET, ENVI.

Plenary adopted the legislative opinion on 18 May 2006 with a simple majority, giving assent to the conclusion by the European Community of the Energy Community Treaty. The original document was COM(2005)0435 and, on 13 December 2005, the Council had sent a second revised proposal to the EP for its assent, where it had made some important modifications to the Commission's proposal (including the role of the EP). The ECT is modelled on the European Coal and Steel Community (ECSC) and seeks to allow the contracting partners of South East Europe to agree on one area of policy, i.e. energy, and then to develop a shared view of the EU. The ECT is modelled on the European Coal and Steel Community (ECSC) and seeks to allow the contracting partners of South East Europe to agree on one area of policy, i.e. energy, and then to develop a shared view of the EU.

Report on the share of renewable energy sources in the European Union: proposals for concrete actions, INI/2004/2153.

Committee responsible: ITRE, rapporteur Claude TURMES (Greens, LU), and opinion from ENVI and AGRI.

Adopted in Plenary on 29 September 2005. This report is based on the Communication of the European Commission adopted on 26 May 2004. The Report outlines a strategic overview on where renewable policies stand in Europe and proposes concrete actions to increase the share of renewable energy in the EU. The Commission has been asked to draw up an EU medium-term renewable energy strategy for the period after 2010. The setting of mandatory targets has been requested, but with EU target broken down into both sector and national targets. Furthermore, MEPs call on the Commission to propose new legislative initiatives in order to put an end to huge market distortions which penalise renewable energy production. The report further includes a number of proposals concerning the use of biomass which is considered to have many advantages compared to conventional energy sources and compared to some other renewable energy sources. The Commission and Member States are asked to use the structural and cohesion funds to promote the use of biomass. It has to be noted that, after the vote in Plenary, political groups have given different interpretations on the contents of the EP's resolution.

2nd reading report on the Council common position for adopting a directive of the European Parliament and of the Council on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC, COD/2003/0300, COM(2003)0739.

Committee responsible: ITRE, rapporteur Mechthild ROTHE (PSE, DE).

Adopted in Plenary on 13 December 2005. The report has been subject of an agreement in 2nd reading between the Council and the European Parliament after several informal trilogues (held between October and December 2005). In order to reach such an agreement, the European Parliament had to make some concessions from its position in 1st reading (i.e. accepting indicative targets instead of mandatory targets, to save 9% of the energy supplied to end users instead of 11.5%, in the nine years following the directive's entry into force. Members may set themselves a higher target. The Council had been arguing for a 6% reduction over six years). Nevertheless, the EP was able to substantially improve the contents of the Common Position in some areas such as the role of the public sector, benchmarking and reporting and monitoring. Parliament adopted 49 compromise amendments.

Report on the proposal for a directive of the European Parliament and of the Council concerning measures to safeguard security of electricity supply and infrastructure investment, COD/2003/0301.

Committee responsible: ITRE, rapporteur Charles CHICHESTER (PPE-DE, UK), with opinions from ECON and ENVI.

Report adopted in Plenary on 5 July 2005. The legislative act was adopted in Council 1 December 2005 and published in the O.J. 18 January 2006. The report was the subject of an agreement in 1st reading between the Council and the EP since the positions of both institutions were quite close concerning the Commission's proposal. Several informal trilogues were held in May and June 2005. The main elements of the agreement were to leave network security to the professionals, resist the urge displayed by the Commission to intervene and micro-manage as well as to force Member States to define the roles and responsibilities of market actors, including themselves. Most of the political groups (except Greens and part of GUE) supported the compromise amendments with the Council during the vote in Plenary.

2nd reading report on the Council common position for adopting a regulation of the European Parliament and of the Council on conditions for access to the natural gas transmission networks, COD/2003/0302.

Committee responsible: ITRE, rapporteur Esko SEPPÄNEN (GUE-NGL, FIN).

Adopted in Plenary on 8 March 2005 and final act published in O.J. 28 September 2005. This report was also subject of an agreement in 2nd reading. The informal trilogues that were held between Council and Parliament were mainly on technical and clarification details of the text (especially on definitions contained in the regulation, reporting by the Commission...), with all political groups in the same line. The nine compromise amendments with Council were adopted almost unanimously by the Plenary.

Report on the proposal for a decision of the European Parliament and of the Council laying down guidelines for trans-European energy networks and repealing Decisions No 96/391/EC and No 1229/2003/EC, COD/2003/0297.

Committee responsible: ITRE, rapporteur Anne LAPERROUZE (ALDE, FR).

On 4 April 2006, Parliament adopted the 2nd reading report; 2nd reading by Council pending. The second reading report amends the Council's Common Position on the Directive on Trans European Energy Networks (repealing Decision 96/391/EC and Decision No 1229/2003/EC). The amendments were acceptable to Council. The compromise includes two important elements of the original Commission proposal supported by the EP but previously opposed by Council: the declaration of projects of European interest and the European coordinator. On the issue of projects of European interest, the report states that for most projects declared to be of European interest, a significant current or prospective delay could be a delay expected to last between one and two years. The European Coordinator shall promote the European dimension of the project and the cross-border dialogue between the project promoters and the people concerned.

2nd reading report on internal market for electricity: safeguard security of supplies, infrastructure investment, COD/2003/0301, COM(2003)0740.

Committee responsible: ITRE, rapporteur: Giles CHICHESTER (EPP-ED, UK). Opinions were asked from ECON and ENVI.

The report was adopted on 5 July 2005. The final directive was published on 18 January 2006. The report made several amendments to the Commission proposal, which were acceptable to Council. Parliament emphasised, throughout the text, the importance of ensuring the continuity of electricity supplies. The report aimed to guarantee a secure electricity supply and to ensure a competitive internal electricity market co-operation between national transmission system and operators. Member States must bring into force all the necessary provisions by 24 February 2008. By 1 December 2007, Member States must notify the Commission of the text of the provisions of national law which they adopt in the field covered by this Directive.

Other reports related to energy area

Report on the proposal for a regulation of the European Parliament and of the Council determining the general rules for the granting of Community financial aid in the field of the trans-European transport networks and energy, COD/2004/0154.

Committee responsible: BUDG, rapporteur Mario MAURO (PPE-DE), with opinion from ITRE and TRAN.

Plenary adopted the report on 26 October 2005. The European Parliament adopted a resolution making several amendments to the Commission's proposal. In the field of transport, a maximum of 30% of the total eligible costs of the works; exceptionally, cross-border sections of projects included in the TEN-T programme as well as the deployment of European interoperable rail signalling systems may benefit from a maximum grant rate of 50% of total eligible costs. The Community should recognise cross-financing of TEN projects by way of toll supplements as a further means of speeding up the completion of other TEN projects and should be careful to comply with the detailed arrangements laid down by the European Parliament and the Council. Projects to be given priority should include those which "contribute to the elimination of bottlenecks and to an increase in long-distance transport connections, particularly in cross-border railway transport". The financial reference amount for 2007-2013 should be EUR 20 490 million, (as opposed to the Commission's proposal of EUR 20,690 million), of which EUR 140 million should be earmarked for energy rather than EUR 340 million. The multi-annual programme should be adopted under the codecision procedure, rather than under the comitology procedure as proposed.

2004 enlargement, environment: taxation of energy products and electricity (amending directive 2003/96/EC), CNS/2004/0016.

Committee responsible: ECON with rapporteur Pervenche BERES (PES, F).

On 30 March 2004 the European Parliament adopted a resolution drafted by approving the Commission's proposal.

European Parliament legislative resolution and 2nd reading recommendation on the Council common position for adopting a directive of the European Parliament and of the Council establishing a framework for the setting of eco-design requirements for Energy-Using Products and amending Council Directive 92/42/EEC and Directives 96/57/EC and 2000/55/EC of the European Parliament and the Council, COD/2003/0172.

Responsible committee: ENVI, rapporteur Frédérique RIES (ALDE), with opinion from ITRE.

Plenary adopted the 2nd reading on 13 April 2005. Final legislative act adopted 6 July 2005. The European Parliament adopted a resolution and approved a text which had been agreed with Council. The resolution sets out priorities for eco-design taking into account environmental impact and particularly CO₂ emissions throughout the life-cycle. It further stated, as a general principle, the energy consumption of EuPs in stand-by or off-mode should be reduced to the minimum necessary for their proper functioning. The Commission is asked to conduct preparatory studies and impact assessments.

Eco-design requirements will then become legally binding for all products put on the EU market irrespective of where they are designed and produced;

Resolution on Sustainable Development Strategy (SDS)

Committee responsible: Informal Group on the revised EU Sustainable Development Strategy, draft joint resolution.

The draft resolution is due to be tabled on 7 June 2006, with deadline for amendments of 12 June and debate on 14 June. The resolution will take into account the Council document of 24 May 2006 (9780/06) on quantitative targets and goals on SDS with regards to climate change and clean energy; sustainable transport; sustainable production and consumption; and management of natural resources.

Resolution on Sustainable Development Strategy (SDS)

Committee responsible ENVI, rapporteur Anne FERREIRA (PSE, FR), with opinion from EMPL.

On 18 January 2006, the European Parliament adopted a resolution based on the own-initiative report The European Union launched its Sustainable Development Strategy (SDS) at the European Council in Gothenburg in 2001. This strategy has to be reviewed every five years. Parliament is now giving its contribution to the review process, in reaction to a Commission communication. Parliament stated its concern about inter alia the following:

- there is a risk that the Union will not attain the Kyoto protocol objectives for 2012, due to the absence of suitable measures to curb the rise in road transport;
- most Member States depend heavily on fossil fuels and nuclear energy for their energy supplies, and promotion of biofuels is urgently required.

Report on the communication from the Commission to the Council and the European Parliament on Stimulating Technologies for Sustainable Development: An Environmental Technologies Action Plan for the European Union, INI/2004/2131.

Committee responsible: ENVI, rapporteur Ritta MYLLER, (PSE, FI), with ITRE giving opinion.

The report was adopted 5 July 2005 and the reports welcomes Council Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity, as a small step in the right direction, but emphasises the need to do more in this area. It urges the Commission, the Council and the Member States to be progressive when proposing and adopting new initiatives to enhance energy efficiency on the demand-side, to reinforce the sector of renewable energy, and promote the spread of co-generation and energy-efficient use of biomass, also with regard to transport, housing and construction. Furthermore, the report notes that the development of environmental technologies, notably in the energy sector, has been hampered by important state aids for fossil fuels and nuclear power in the Community and strongly believes in the principle that external costs should be included in the price of energy from different sources and that this principle should be a basis for the revision of the EU state aid guidelines due in late 2005. The report also notes that eco-taxes are an important tool to set energy prices correctly. The report also notes that environmental technologies for the treatment of waste have an important role to play in sustainable development and that the use of municipal waste to achieve energy savings will have dual environmental benefits in that it will eliminate materials harmful to the environment and produce energy that is renewable.

Non-legislative resolution on the role of the European Union in the achievement of the Millennium Development Goals MDGs INI/2004/2252, COM(2005)132

Committee responsible: DEVE, rapporteur Glenys KINNIOCK (PSE), with opinion from INTA.

On 12 April 2005 the plenary adopted an own-initiative report on the achievement of the MDGs. The Commission adopted 3 communications on the subject on the same date. In the report, the importance of access to modern energy services for the poor is stressed, however recognising that developing countries do not have to repeat the mistakes of industrialised countries and should therefore be given specific support to invest in energy technologies that are clean and efficient.

Finally, the report calls on the Commission to adjust its cooperation and trade policies as far as possible in order to help governments of developing countries maintain and develop public services,

particularly those guaranteeing access for the population as a whole to drinking water, health services, education, transport and energy.

Communication concerning the negotiation of the accession of the European Atomic Energy Community (Euratom) to an international Framework Agreement among the Members of the Generation IV International Forum in the field of nuclear-related research Proposal for a Council decision concerning the negotiation of the accession of the European Atomic Energy Community (Euratom) to an international Framework Agreement among the Members of the Generation IV International Forum in the field of nuclear-related research , COM(2005)222 - Commission communications was adopted on 25 May 2005.

The aim of this Commission initiative is the accession of Euratom to a research framework agreement in the context of the Generation IV International Forum which will make it possible to develop fourth-generation nuclear reactors. The 'technology roadmap', the main document describing the technical content of the research to be performed, identifies six different nuclear energy systems for further development.

Nuclear safety and security: establishing an instrument for nuclear safety, radiation protection and safeguards of nuclear materials in third countries, EAEC Treaty, CNS/2006/0802.

Committee responsible: ITRE, rapporteur not yet appointed.

Proposal for a Council Regulation establishing an Instrument for Nuclear Safety and Security Assistance. Based on Council document 9037/06 of 5 May 2006.

Report on the proposal for a Council regulation on the implementation of Protocol No 9 on the Bohunice V1 nuclear power plant in Slovakia, as annexed to the Act concerning the conditions of accession to the European Union of the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia (CNS/2004/0221),

Committee responsible: ITRE, rapporteur Rebecca HARMS (Greens, DE), and opinion from BUDG.

Adopted in Plenary on 16 November 2005. The main change requested by Parliament was to increase the amount of the EU contribution for the decommissioning from €237 million (Commission's proposal) to €400 million. Another important request was that provision for financial assistance shall continue to be made after 2013. Some political groups (namely Greens and GUE) voted against, some (including PSE) were divided, the EPP-ED was mainly in favour. The *rapporteur* stated that she did not want to be associated with the result of the vote.

Report on the use of financial resources earmarked for the decommissioning of nuclear power plants, INI/2005/2027.

Committee responsible: ITRE, rapporteur Rebecca HARMS (Greens, DE).

Adopted in Plenary on 16 November 2005. This report is based on the Commission's Communication, COM(2004)0719, adopted on 26 October 2004. A majority of the EP considered it necessary to ensure that in each Member State all nuclear undertakings have sufficient financial resources available to cover all the costs of decommissioning. The EP called for a sound management of financial resources earmarked for decommissioning and for their use for equitable investments fully in-line with EU competition law and for the Commission to draw up, with due regard for the subsidiarity principle, precise definitions concerning the use of financial resources in each Member State. Some political groups were internally divided on some contents of the report.

Supervision and control of shipments of radioactive waste and spent fuel CNS/2005/0272, COM(2004)0716& COM(2005)0673.

Committee responsible: ITRE, rapporteur Esko SEPPÄNEN (GUE-NGL, FIN).

Report adopted in the ITRE committee on 10 May 2006 and is scheduled for the June plenary. The Commission proposal aims to amend Council Directive 92/3/Euratom to clarify and add concepts and definitions, to address situations that had been omitted in the past, to simplify the existing procedure for the shipment of radioactive waste between Member States and to guarantee consistency with other Community and international provisions and, in particular, with the joint Convention for the safe management of spent fuel and radioactive waste to which the Community acceded on 2 January 2006. To clarify the text, the *rapporteur* proposes amendments to the text which make it clear that any country has the right to ban imports both of foreign radioactive waste and of foreign nuclear spent fuel for final disposal.

Report on the Commission's Annual Policy Strategy (APS) for 2007, BUD2006/2020, COM(2006)0122.

Committee responsible: BUDG, rapporteur Elles JAMES (EPP-ED, UK), with opinions from AFET, DEVE, INTA, CONT, TRAN, AGRI, LIBE.

The rapport was adopted in plenary 18 May 2006 and considers energy efficiency and development of alternative energy sources of utmost importance in the medium and long term; mentions encouraging projects in the agricultural sector, such as energy producing greenhouses, and intends to propose a pilot project to further research and development in this area. The report insists that the European Union must not pursue the privatisation of public services relating to people's basic needs, to education, to health, to culture, to access to water and to energy.

Legislative resolution on the proposal for a regulation of the European Parliament and of the Council on the European Regional Development Fund, COD/2004/0167, COM(2004)0495.

Committee responsible: DEVE, rapporteur Claudio Giovanni FAVA (PSE, IT), with opinions from BUDG, CONT, EMPL, ENVI, ITRE, TRAN, AGRI, PECH and FEMM.

On 6 July 2005, the European Parliament adopted a report on the proposal for a regulation of the European Parliament and of the Council on the European Regional Development Fund Parliament enlarged the scope of the regulation. Parliament stated that housing costs should also be excluded, with the exception of expenditure related to renovation of social housing with a view to saving energy and protecting the environment in the context of sustainable urban development.

Regarding energy:

- energy, including trans-European networks, which contribute to improving security and quality of supply, safeguarding jobs, completing the internal market, and integrating environmental considerations, improvement of energy efficiency and the development of renewable energies;
- stimulating energy efficiency and renewable energy production, the development of efficient energy management systems and the reduction of CO₂ and other noxious emissions;
- particularly highlighting issues such as sustainable supplies of water and energy;
- the production of biofuels and/or use of energy from renewable sources;
- investments in energy efficiency (infrastructure, technical support and information to end-users);
- research financed wholly by public funds via the EC budget or national research institutes, which are not yet patented, may be offered to SMEs free of charge provided that such research is directly transformed into an innovation leading to an industrial good entailing less energy content;
- the ERDF should ensure synergy with the European Social Fund and the Cohesion Fund. It should also ensure complementarity and consistency with other Community policies, with special attention being paid to new neighbourhood policy, enlargement and energy policy.

Report on the proposal for a regulation of the European Parliament and of the Council concerning the Financial Instrument for the Environment (LIFE +) 2007-2013 COD/2004/0218.

+ **(LIFE programme: updating the mid-term review** (regul. 1655/2000/EC), COM/2005/0394 of 30 august 2005, officialisation of procedure in the EP pending).

Committee responsible: ENVI, rapporteur Marie Anne ISLER BÉGUIN (Greens, FR), with opinion from BUDG.

LIFE+ will particularly support the implementation of the 6th Environmental Action Programme which aims to combat climate change, halt the decline in nature and bio-diversity, improve environment, health and the quality of life, promote the sustainable use and management of natural resources and wastes and develop strategic approaches to policy development, implementation and information/awareness raising. The report included several new provisions regarding grants for Natura 2000, stating that sites will be co-financed at a rate from 50 to a maximum of 75%. The specific criteria for sites eligible for a more than 50% financial contribution will be set out in the multi-annual programmes. The financial framework for the implementation of this instrument is set at € 2,190 million, increased by a minimum of 35% of the Natura 2000 network needs as evaluated by the Member States and the Commission, that means a total of € 9 540 million for the period from 1 January 2007 to 31 December 2013 (seven years).

Regulations of the European Parliament and the Council on certain fluorinated greenhouse gases, COD/2003/0189A, and fluorinated greenhouse gases from motor vehicle air-conditioning systems, COD/2003/0189B.

Committee responsible: ENVI, rapporteur: Avril DOYLE (PPE-DE).

On 6 April 2006, the European Parliament adopted two legislative resolutions on the joint texts approved by the Conciliation Committee for a regulation of the European Parliament and of the Council on certain fluorinated greenhouse gases. The choice of refrigerant and equipment design can have a major impact on energy efficiency and energy consumption. Therefore the choice of refrigerant can influence the cost-effectiveness of energy consumption measures for stationary refrigeration and air-conditioning. The directives aim at putting in place a legislative framework to reduce emissions of hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride, which are powerful greenhouse gases covered by the Kyoto Protocol. The directives represent a further step towards fulfilling the EU's obligations under the Kyoto Protocol to reduce emissions of all gases contributing to global warming. The gases are used in refrigeration, air conditioning, fire-fighting equipment and various industry processes. Emissions are expected to be reduced by almost a quarter by 2010. During the legislative process, the Parliament introduced a clause allowing the maintenance of existing stricter measures in Member States where the allowed standards are higher and the possibility of promoting the installation of air-conditioning systems in vehicles with low greenhouse gas emissions by introducing fiscal or other incentives.

Non-legislative resolution on EU-Russia relations, INI/2004/2170.

Committee responsible: AFET, rapporteur Cecilia MALMSTRÖM (ALDE, SE), with opinion from INTA.

Plenary adopted the own-initiative resolution, on Thursday 26 May 2005. On the energy issues, the resolutions emphasises the need to further develop and implement a common energy strategy for Europe, incorporating producers, distributors and consumers, aimed at creating a transparent and sustainable energy system and to enhance the regional diversity of energy supplies. The resolution declares that the development of such a strategy is of common interest to the EU and Russia. It states that the EU has an interest to increase its energy imports, more specifically oil and gas from Russia, and welcomes the agreement on the trade-related questions of energy and fuel, particularly with regard to the supply of oil and gas, stressing the importance of ensuring that the commitments made during the WTO accession process be fulfilled. Parliament affirmed that good neighbour relations and cooperation between the EU and Russia are crucially important for stability, security and prosperity on the whole of the European continent but that relations have to be founded on common values, consisting of respect for human rights, the market economy, the rule of law and democracy.

Parliament called on the Commission and the Council to show solidarity and unity within the EU between the old and the new Member States alike in the event of Russia aiming to differentiate its approach towards them.

Legislative resolution on the proposal for a directive of the European Parliament and of the Council establishing an infrastructure for spatial information in the Community (INSPIRE), COD/2004/0175, COM(2004)0516.

Committee responsible: ENVI, rapporteur Frieda BREPOELS (PPE-ED, BE).

On 7 June 2005, the European Parliament adopted a legislative resolution on the proposal for a directive of the European Parliament and of the Council establishing an infrastructure for spatial information in the Community (INSPIRE). Utility and government services comprise underground and above-ground utility networks and facilities such as drains, waste treatment, energy supply, telecommunications and water supply, and administrative and social government services such as authorities, schools and hospitals. The 1st reading report gave *inter alia* more precise definitions for many terms such as "spatial data services. EP has tabled a 2nd reading report on 2 May 2006 scheduled for the June plenary.

Report on Science and technology, the key to Europe's future - Guidelines for future European Union policy to support research, INI/2004/2150, COM(2004)0353.

Committee responsible: ITRE, rapporteur Pia Elda LOCATELLI (PSE, IT).

On 10 March 2005, Parliament adopted an own-initiative report on guidelines for future EU policy to support scientific and technological research. The report states that more funding was needed for research and innovation if Europe was to become more competitive. The percentage of Member States' GDP represented by the Seventh Framework Programme (FP7) budget should be at least doubled and not put up for discussion during the negotiations on the financial perspective. The report asked for continuity between the 6th and 7th Framework Programmes and for clearer and simpler procedures. FP7 should adequately support research in the areas of all existing and future non-CO2-emitting energy sources (including nuclear energy).

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