



EWEA

THE EUROPEAN WIND ENERGY ASSOCIATION

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

EWEA **POSITION PAPER**

SEPTEMBER 2006

A policy briefing by EWEA – September 2006

Contact: Isabel Blanco

e-mail: isabel.blanco@ewea.org

tel.: +32 2 546 19 41/40



Background

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

Table of Content

1. Introduction	4
2. Overall comments	5
3. Priority areas.....	8

1. Introduction

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

The dramatic increase in fuel prices and the economic and geopolitical risks associated with imported fuels have moved to the top of the political agenda.

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

Meanwhile, the negative effects of climate change and pollution are becoming ever more apparent: the rise of world temperature is no longer a question of "if" but a question of "how much" and "by when", as clearly pointed out by the Intergovernmental Panel on Climate Change, widely taken as the "consensus of the scientists". Climate change is also disturbing the water cycle, which has dramatic consequences for electricity production patterns. It is painfully clear that the level of greenhouse gases in Europe is incompatible with the modest short-term targets we have com-

mitted ourselves to (a 2°C increase of average world temperature). A stable climate is not compatible with our current fossil-fuel reliant economies. More local impacts – such as the increase of particulate matter, SO₂, ozone and NO_x pollutants – are adversely affecting the quality of our lives, especially in urban areas, where 76%¹ of the European citizens live.

In the old structure of utility monopolies, the system was always securing excess generating capacity, knowing that the costs of new build would be passed on to consumers through utility mandates from governments; as a consequence the wind energy sector and other renewable technologies have spent the past two decades fighting to gain access to a system that did not really need additional generating capacity, but which was justified on environmental grounds. This situation is rapidly changing and **spare electricity generating capacity is at a historical low in Europe:** in the first thirty years of this millennium, 365GW of electricity generating capacity will be retired in Europe and an additional 400GW² will be needed to satisfy the growing power demand. This means that the capacity required in the medium to long term exceeds the total electricity generating capacity operating in Europe today, demanding a vast amount of investment – around one trillion euros according to the Green Paper – in new plants, transmission and distribution infrastructure. As a complement, **there is a need for a complete overhaul of the European grid infrastructure** to comply with trading requirements as well as with the new East-West dimension and new innovative technologies ("smart grids").

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

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

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

by the large turnover in electricity generating capacity over the next two decades to secure a truly indigenous clean energy supply based on renewable sources of energy. Combined with much more ambitious efficiency measures and biofuels, it is the only way for Europe to turn the looming energy and climate crisis into a competitive advantage and contribute positively to the increased welfare of our citizens.

This position paper has been divided into two parts:

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

2. Overall comments

- In EWEA's view, **the Green Paper "A European Strategy for Sustainable, Competitive and Secure Energy" includes all the right elements in the description of the challenges** that Europe is facing in the new energy era: urgent need for investment, increasing dependency on fossil fuels, rise of global demand for energy, climate change, non-competitive energy markets, etc. Indeed, this discussion is not new and most of such elements were already present in the 2000 Green Paper: *"Towards a European Strategy for the Security of Energy Supply"* [COM (2000) 769 final]. The debate died at the time; this new attempt must succeed to ensure long-term economic growth, energy supply stability and to overcome the apparent conflict that still exists between a truly European approach and the diverse interests and competences of Member States.
- **Renewable energies within the EU energy strategy should be kept a political priority.** The statements in favour of RES are more hesitant now, compared with the 2000 document in which the executive summary stated that (...) *"with regard to supply, priority must be given to the fight against global warming. The development of new and renewable energies (including biofuels) is the key to change. Doubling their share in the energy quota from 6 to 12% and raising their part in electricity production from 14 to 22% is an objective to be attained between now and 2010. (...) Only financial measures (aids, tax deduction and financial support) would be able to buttress such an ambitious aim. One way which could be explored is that profitable energies such as oil, gas and nuclear energy could finance the development of renewable energies which, unlike traditional energy sources, have not benefited from substantial support"* (pages 4 and 5 of the English version). In the 2006 Green Paper, the European Commission's renewable energy ambitions seem lower, with the only novelty being the proposal of a Renewable Energy Road Map for which no concrete details are given yet. It is particularly unfortunate that the European Commission does not take, as a starting point for discussion, the targets proposed by the European Parliament of at least 20% renewable share by 2020, to be translated into sectorial targets for electricity, heating/ cooling and biofuels.
- **EWEA would have liked to see more visionary content in relation to the future energy supply structure.** Unfortunately, most of the actions outlined in the Green paper are based on the current energy model which is the cause of the problems it describes. Being a debate document, we would have expected more emphasis on providing long-term tangible solutions to challenges such as import dependency, fuel prices and environmental problems. Only indigenous renewable energy sources combined with efficiency can address these challenges. **A visionary strategy would look beyond the current energy model towards one in which renewable energy sources are combined with energy efficiency measures and technology export measures.** Measures aimed at improving the dialogue with oil and gas rich nations to reduce the impact of volatile fossil fuel prices on the EU economy are clearly necessary, but should not part us from this long-term strategic objective.
- **Europe needs a common energy strategy to ensure real competition in the internal energy market and to create sufficient critical mass to allow Europe**

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

- In the light of the recent failure to obtain wide public support for the European Constitution, we believe that **an energy policy should focus on those areas where there is broad Member State consensus and a large degree of public support.** This opinion is shared by the other Brussels-based renewable energy associations under the European Renewable Energy Council (EREC) umbrella and by the European Energy and Transport Forum.
- Areas with a clear consensus for priority by Member States and the general public are: energy efficiency; renewable energy sources; distributed generation; energy infrastructure and cross-border trade; electricity and gas liberalisation and competitive markets; energy diplomacy. In this context, it is worth highlighting the Eurobarometer EU-wide survey called: "Attitudes towards energy" from 24 January 2006, which concluded that almost **80% of EU citizens support renewable energies as their preferred alternative to high-priced oil and gas.** To respond to the energy challenges, developing the use of nuclear power is supported by 12%, confirming the results of an earlier Eurobarometer on nuclear waste. EWEA believes that **the collective attitude of EU citizens is insufficiently reflected in the Green Paper.**
- **The Green Paper needs to make a more explicit link with the Lisbon and Gothenburg Agendas and with the competitiveness, employment and environmental objectives** that appear there and in the Treaty. Dependence on external energy sources does not only affect the security of supply; it also im-

poses uncertainty to markets, makes investments more difficult and deteriorates the competitiveness of the industry. In contrast, indigenous renewable resources are an advantageous alternative of income and jobs in Europe, and one of the few energy areas in which the EU can sell instead of purchase in world markets. Renewable energy sources, and in particular wind energy, are a significant and rapidly increasing source of employment in Europe³; annual investment was approximately 7 billion in 2005, and the European wind turbine manufacturing industry has an 80% world market share. What is more: the sector has a strong position in the most promising markets, such as China, India and the United States, where much of the new energy capacity will be built in the coming decades.

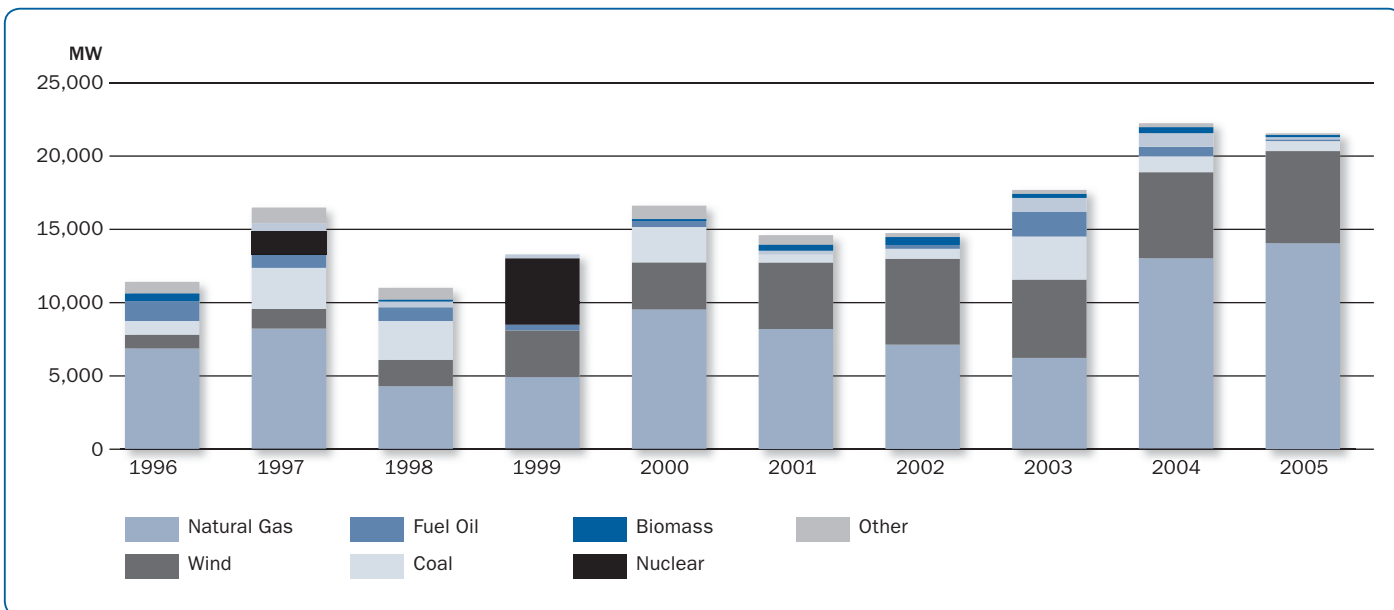
- **Renewable energies in general, and wind energy in particular, are large-scale energy solutions: wind energy represented 32% of all electricity generating capacity installed in the EU in the past five years according to figures from Platts;** only gas capacity has exceeded wind energy in terms of installation. In 2005, 19% of the electricity needs for Denmark were covered by wind, 8% in Spain⁴ and 5% in Germany. The share is growing in other countries and will be more so if current administrative and grid connection barriers are alleviated. Wind energy should have a central role to play in the European energy strategy which hopefully follows from this debate as a short, medium and long term solution to Europe's energy supply challenges.
- Wind energy is already one of the largest contributors to European employment, investment, research and economic activity in the electricity sector. As shown in Chart 1, over the past ten years, **wind energy was the second largest contributor to new electricity generating capacity in the EU**, only surpassed by gas. Over the past five years, 30% of all installed capacity in the EU has been wind energy (Chart 2). While wind energy today meets some 3%

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

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

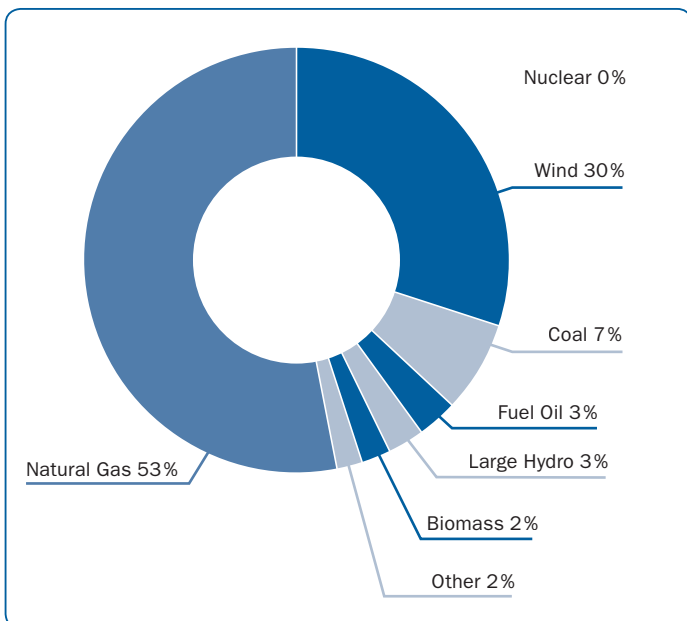
of EU's electricity demand, the technology is already the second largest contributor to economic activity and employment in power manufacturing.

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



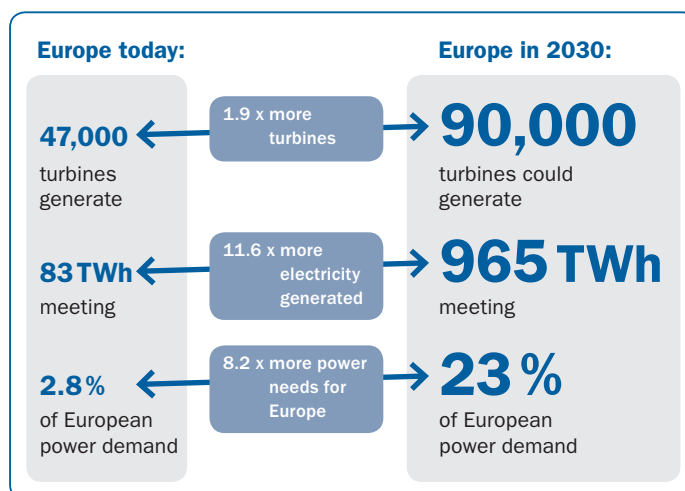
SOURCE: Platts/EWEA

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



SOURCE: Platts/EWEA

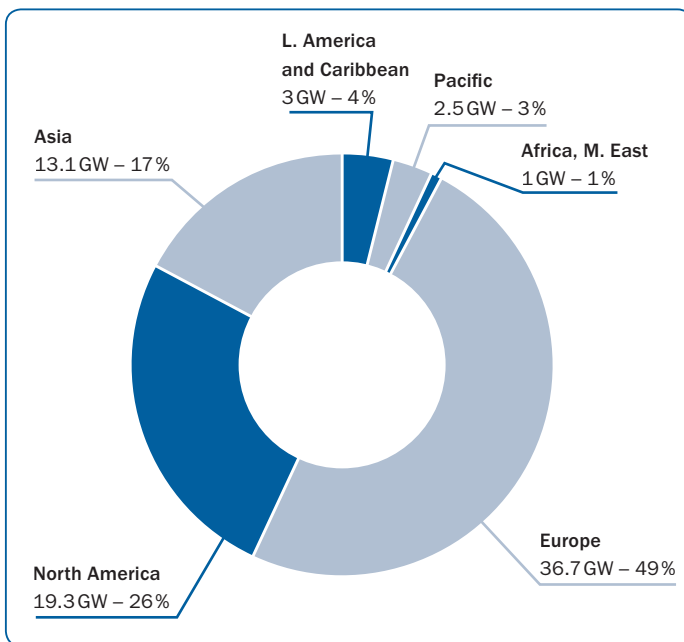
Chart 3: Approximately 3% of EU's electricity consumption is met by wind power today. As chart 3 shows, that share could increase to 23% in 2030 (equal to 32% of today's consumption) by doubling the number of turbines operating in Europe today.



SOURCE: EWEA

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

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



SOURCE: GWEC

3. Priority areas

3.1 *Competitiveness and the internal energy market*

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

- EWEA believes that **the strategy to ensure that all Europeans enjoy access to energy at reasonable prices should rely on three pillars:** (a) **increased competition and transparency** in the energy markets (b) the **increased share of indigenous clean renewable energy sources**, which also have a positive impact on employment and international competitiveness and (c) achievement of the **substantial cost-effective energy savings** that the European Commission⁵ has already identified.
- **A pre-requisite for the success of any new European energy strategy is the achievement of effective competition in energy markets.** Both the Green Paper and the Communication from the Commission: “Report on progress in creating the internal gas and electricity market” [COM (2005) 568 final] recognise the relative failure in achieving it so far and list a number of shortcomings with which EWEA strongly agrees (lack of integration of the national markets, absence of price convergence, barriers to entry, inadequate use of existing infrastructure, insufficient infrastructure, high degree of concentration of the industry⁶, etc.). Such distortions **discriminate against renewable energy sources** and other new entrants in the energy markets.
- A priority line of action to attain effective competition is to **ensure that full legal and ownership unbundling between transmission/distribution, pro-**

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

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

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

- Focusing on the electricity market, **EWEA welcomes the Community's efforts to create a well-functioning Internal Electricity Market (IEM)**; its development **should reflect the EC's intention to double the share of electricity from renewable energy sources by 2010**.
- **Renewable energy sources, in particular wind energy, will strongly contribute to improving competition within the internal electricity market and to reducing electricity prices**, to the benefit of the consumer. The cost of producing electricity from renewables is known and fixed from the initiation of the project, and therefore remove the cost-uncertainty element from energy decision making. **These effects are being felt already**: for instance, on the German electricity exchange (EEX), wind energy is reducing electricity prices due to its low marginal cost of production; the same pattern is observed in Denmark and in Spain, where the participation of wind energy in the market is having an important incidence on deviation and tertiary management.
- Another key issue is **the reinforcement of interconnection capacity**, still very limited and, in some cases, almost non-existent. **Cross-border interconnection between Member States** is a top priority as a means to increase effective competition among companies, often acting in monopolistic ways.
- In turn, grid reinforcement and extension plans have to accommodate the further development of renewable electricity generation. **The existing guidelines for European energy networks – TEN-E guidelines – could provide a useful framework for upgrading the European grid infrastructure** which was characterised by underinvestment during the 1980s and the 1990s. Also **the nascent trans-national grids must be prepared to absorb onshore and offshore**

wind power, and the TEN-E can provide a vehicle to focus on this area; the Priority Interconnection Plan which is under development should address these aspects. The potential for public private partnership should be fully investigated.

- The benefits of distributed generation e.g. in terms of network losses and reduced need for grid reinforcement, must be recognised. EWEA proposes that **electricity from renewable sources obtains priority access to the existing European interconnection capacity system in order to improve international renewable electricity trade**. Potential small RES traders will have no opportunity if existing barriers to competition are not removed. The guarantees of origin for renewable electricity, as stated in EC Directive 2001/77/CE, will help to make such trade easier in terms of avoiding double-counting, but only to the extent that certain internal market conditions between Member States exist.
- EWEA supports the **establishment of a European energy regulator as a means to ensure the creation of a well-functioning liberalised energy market**.
- In relation to the proposed European Grid code, as expressed in the questionnaire, it is clear that the numerous and frequently changing **codes often contain overly costly and challenging requirements for the wind energy sector**. In addition, they are **developed** in a highly non-transparent manner **by vertically-integrated power companies, with little or no involvement of the wind energy sector**. In EWEA's view, costly technical requirements should only be applied if there is a true technical *rationale* for them and if their introduction is required for reliable and stable power system operation. Grid requirements depend crucially on the nature of the individual transmission systems, so unless an actual European grid is developed, it is difficult to see how a common grid code for wind energy can be written. However, EWEA is positive towards formulating general guidelines to avoid the current situation of numerous, uncoordinated and frequently changing requirements. We are also positive towards a more general European grid code, formulated by a future European energy regulator, in cooperation with TSO's and the wind energy sector.

- **Removing unproductive subsidies to mature fossil and nuclear technologies and applying the “polluter pays principle”** to energy markets, as established in Article 174 of the Treaty, **would go a long way to level the playing field and to increase energy investments in Europe.**
- **Correcting market prices so that they incorporate all costs and benefits related to the different technology options is the best guide to rationalise investment decisions.** Such rationalisation includes environmental impacts and use of common natural resources, but also other issues such as oligopolistic behaviour, asymmetric information, non-market protection, etc. Some precedents exist, such as the ExternE project co-funded by the EC under the 5th Framework Programme, but additional and more coordinated efforts should be made, with the ultimate goal of reaching a commonly-accepted set of values to be incorporated into decision-making regarding true costs and prices of the various technology options.
- Finally, the proposition for the **“Strategic EU Energy review” to take place on a regular basis can be a good tool** to ensure that the above-mentioned areas are progressing at adequate speed. For this to happen, the reviews will need to introduce some sort of penalty and correction mechanisms when the objectives are not being met and to **make sure that RES and RUE priorities are taken into account.** In practical terms, this could be achieved by means of a formal link between the Strategic Review and the RES Road Map, for instance through the incorporation of a chapter on RES development in the reviews, which foresees the implementation of additional measures if they are lagging behind.

3.2 Diversification of the energy mix

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

- It seems obvious that the only way to ensure that Europe promotes climate-friendly diversification of energy supplies is to **dramatically change the current energy mix towards a greater use of renewable sources.** In this light, it is difficult to understand why the European Commission has reduced the importance of renewable energy sources in this text, compared with the 2000 Green Paper, as explained in section 2. What is more: this Green paper does not introduce anything new in the discussion; but sets back some of the issues that had been agreed in previous documents and agreements.
- **EU targets beyond 2010 are needed** to maintain investor confidence and signal direction to policy makers, and civil society.
- In that context, **EWEA welcomes the proposal of a “Renewable Energy Roadmap” that includes a long-term commitment to develop and install renewable energy sources but sees no concrete proposals yet.** A reference to the agreement reached by the European Parliament in April 2004 on having at least 20% renewables share by 2020 should have been included as a starting point for the debate.
- EWEA believes that **the overall long term target of at least 20%⁷ renewable energy in 2020 should be accompanied by sectorial targets for electricity (35% by 2020), heating (25%) and biofuels (12%).**
- EWEA is in favour of **making current national energy targets (2010) mandatory and of establishing mandatory national renewable energy targets for 2020** as an effective means to foster and maintain investors' confidence. The announced *“active programme with specific measures to ensure that existing targets are met”* (page 12) needs to take this into account; otherwise, the incentive to achieve them is substantially reduced. An overall primary renewable energy target for 2020 is of little use, if not complemented by sectorial targets for electricity, heating/cooling and transport.
- As it has been correctly pointed out by the Green Paper, **offshore wind can make a fundamental contribution to the overall goal of increasing EU's energy**

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

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

- The European Commission should build upon the existing informal cooperation between Member States from the Egmond-process and **the conclusions of the Copenhagen Strategy for an effective deployment of the offshore wind energy technology. It would form a good starting point for a European policy for offshore wind**. Such conclusions include the "one-stop shop office approach", the convenience of defining division of responsibility among different layers of the public administration in Member States, the need for long term grid planning, the importance of more efficient consenting procedures which build on past experience and are in proportion to the scale of the project, the need to ensure good quality assessments, and the establishment and use of marine spatial planning instruments to reach optimal site selection.
- Finally, it is difficult to grasp what is meant by **introducing "a minimum level of the overall EU energy mix originating from secure and low-carbon energy sources"**⁸. **The term is undefined and targets already exist for renewables** for 2010. These should be followed up by 2020 renewable targets

with sectorial targets for electricity, heating/cooling and transport.

3.3 Solidarity

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

- **A drastically increased effort to introduce large-scale, indigenous renewable energy, in combination with energy efficiency measures is the only way to reduce supply crises on a permanent basis**. Measures such as reviewing Community legislation on oil and gas stocks or improve early warning systems can at best reduce their impact, but will never succeed in avoiding them, because they do not go to the root of the problem.

3.4 Sustainable development

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

- Renewable energy sources are a major source of CO₂ avoidance and could strongly contribute towards fighting climate change. Today, wind power installed in Europe already saves over 60⁹ million tonnes of CO₂ every year. By **2010 wind energy will save app. 110 million tonnes annually, the equivalent of more than 30% of the EU's total Kyoto Protocol obligation**.¹⁰
- Despite the ratification of the Kyoto Protocol in Feb-

⁸ Page 9 of the English version.

⁹ The total 40,505MW of wind capacity installed as of end 2005 will avoid the emission of app. 67 Mt CO₂/year.

¹⁰ The EU Kyoto commitment of reducing greenhouse gases by 8% is equal to a reduction of 355.8 Mt CO₂ equivalents between 1990 and 2010. By 2010, in terms of capacity and power generation EWEA projects that wind power will provide an annual electricity generation of 167 Terawatt hours (TWh), equivalent to 5.5% of European electricity demand. This electricity by wind power will save annually 109 million tonnes of CO₂ representing a cumulative CO₂ savings of 523 million tones (period 2001-2010)

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

- The question of maintaining the competitiveness of the European industry *vis-à-vis* industries producing in countries with less demanding environmental standards has caused considerable concern and needs to be addressed carefully. However, some basic arguments should be borne in mind. First, the European industry does not only compete with other global market players in terms of quantity; but also competes, and should compete, in terms of quality, product differentiation and technology content. Therefore, **environmentally friendly products go hand-in-hand with other advantageous characteristics that can help the EU industry gain global market leadership.** In addition, there are tools which can help the European Commission to fight unfair competition: the most clear is the recently approved “**eco-design**” Directive [EC/2005/32], which establishes the framework for the setting of eco-design requirements for products that use energy, both European and imported. **The translation of this framework law into concrete plans for different groups of products should be a high priority for the EU** and will constitute a key tool to help our industries compete both internally (among Member States with different standards) and with industries from the rest of the world. Also the announced EU Action Plan on Sustainable Consumption and Production, with compulsory targets, could be extremely useful.
- EWEA supports the **EU Emissions Trading Scheme** as a potentially powerful tool to meet the agreed targets for GHG emissions, but acknowledges that it has some limitations. In particular, its current design does not **guarantee per se the levelling of the playing field between polluting and clean technology; it cannot substitute environmental taxes / CO₂ taxes**

and will not secure the internalisation of the majority of external costs. In the light of recent Community reports, such as the first independently verified emissions data, released in mid-May this year, it is evident that there has been an over allocation of permits during the first period, a situation that should be solved in the short term with the second NAPs under discussion. EWEA believes that the ETS should include more sectors in the second stage (2012 onwards), such as aviation and road transport. Binding measures for sectors not included in the Directive need to be shaped.

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

3.5 *Innovation and technology*

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

- EWEA greets the Green Paper recognition that “*renewable energy sources research has greatly contributed to diversify energy supply in Europe (...) and that the magnitude of the challenges ahead requires increased efforts*”, as well as the statement that “*long-term commitment in funding is needed*”. Still, most of the R&D effort goes to conventional energy sources, as the “*Communication on the share of RE in the EU*” fairly points out¹¹. According to it, **only 10% of Government energy R&D**

¹¹ Page 38 of the English version.

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

- Also, Community funding for RES has decreased since the 4th Framework Programme; we believe that this is an unacceptable biased treatment and that renewable energy sources should get a fair share in European and National R&D programmes. **EWEA encourages the European Commission and the European Council to take up the Parliament's decision to dedicate 2/3rds of the non nuclear budget (25% of the total energy budget) to renewable sources of energy and to energy efficiency measures.** The first table below reflects the percentages that the 6th Framework Programme on R&D is going to devote to different energy sources and the effect that the European Parliament's 2/3rds proposal would have on the budget. The second compares the amount of resources allocated in the FP5 and FP6 (first half) in the non-nuclear energy bid, reflecting the decrease of funds devoted to wind.
- **Effective cost reduction of renewable energy technologies must be achieved through a balanced combination of implementation and innovation.** Without R&D, the learning experiences from implementation will not be fully exploited, and vice-versa. Sufficient

R&D budgets and efforts should be guaranteed and go hand-in-hand with a stable implementation policy to reap economies of scale.

- **The wind energy industry has identified**, in its document "Prioritising Wind Energy Research: Strategic Research Agenda for the Wind energy Sector" **the main areas for future development and the financial support that it will require.** This and similar documents for other renewable technologies **should be used as a basis when deciding how to allocate existing funds** among different priorities.
- **Also the technology platforms** that have been created for various RES technologies will play an important role in the identification and development of joint R&D efforts. Such platforms **require a patent support from the European Commission**, which should regard them as an opportunity to guide the research process in a certain direction. **Synergies** among such platforms **have to be exploited**, although it is clear that, at this stage, **the problems they tackle are very different and thus, they should remain independent.** The proposed "Strategic Energy Technology Plan" could assist in achieving better co-ordination and complementarities, provided that balanced representation of the different sectors is ensured.

Expected annual expenditure FP7 (2007-2011)

Million euros, annual figures

Total budget	2400 million euros
Energy research priority	920 million euros
Nuclear energy research	580 million euros (63% of energy budget)
Non-nuclear energy research	340 million euros (37% of energy budget)
Proposed 2/3rds towards RES and RUE	226 million euros (25% of energy budget)

SOURCE: Response to written question from MEP Mechtild Rothe, April 2005.

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

SOURCE: EC

3.6 External policy

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

- **The Green Paper lacks an analysis of the global energy market**, and of how the EU as a player can (or cannot) act within it. Such an analysis **has to encompass many different aspects, not only how to bargain fossil fuel resources**.
- It appears that, under the current energy supply model, **independent negotiations from the Member States are less effective than if the EU could speak with a single voice, particularly in comparison with other “giant” consumers**, such as the US, India or China. Therefore, it is a field in which external diplomacy could work closely, also taking into account that the fossil fuel energy suppliers are more or less common for many EU countries.
- Still, **it is important to repeat that such “energy diplomacy” is intended to reduce the pains of the way we secure energy today rather than to remove the main structural problems**, which at the end of the day is growing dependence. In this light, the proposals appearing in the recent document “An External Policy to serve Europe’s energy interests” do not have the correct focus: almost every measure aims at maintaining the *status quo* in terms of energy imports from third countries, rather than addressing the structural problem of our energy supply. Recent actions such as the Energy Community Treaty signed with some Eastern European countries, although important, cannot put aside the aspects of facilitating RES growth and border trade, as well as energy efficiency measures and the protection of the environment. The diversification of energy imports by product and country does not constitute a solution, as there are not many diversification possibilities if fossil fuels remain the preferred source. In the same manner, the lion share of the funds from the EIB, EBRD and other IFIs, should be directed towards renewable energy technologies.
- It is important **for RES and RUE priorities to be incorporated into bilateral discussions with third countries / trade blocks**, for instance Asia, Mercosur, Canada, China and others. The RES sector has to be formally consulted through existing platforms to make sure that the key points are covered into the negotiation processes.
- **The EU should continue to push hard to achieve full market access to environmental products within WTO negotiations, as well as ongoing and future ETA negotiations (e.g. Mercosur, GCC, TIEA)**. Specifically, EWEA supports the inclusion of wind energy in the list of environmental goods that should be subject to reduction of tariffs and non-tariffs barriers. **The EU should secure full compliance on existing WTO rules on non-discrimination measures**.
- EWEA believes that **the EU should play a more active role in spreading a sustainable energy model to third countries as part of its energy diplomacy, that is, in reinforcing the visionary role that seems to have lost in recent energy policy dossiers**. Our model – and this of course implies that we have to apply it to ourselves in the first instance – should be “exported” to the developing and threshold countries. Countries such as China, India and Brazil are consuming large amounts of fossil fuels, and therefore climate change policies will not succeed unless they change their energy consumption and production patterns. Other problems related to fossil fuel consumption, such as air pollution in large cities, pollution of (sometimes very scarce) water resources, health problems, etc. cannot be ignored and will only be solved through the use of more RES in energy production.
- Europe is a leader in RES technologies. Increasing their global deployment will benefit the EU in terms of **employment and economic prosperity**.

About EWEA

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

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

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

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



EWEA
THE EUROPEAN WIND ENERGY ASSOCIATION

63-65, rue d'Arlon • B-1040 Brussels • Belgium
T: +32 2 546 1940 • F: +32 2 546 1944
E-mail: ewea@ewea.org • www.ewea.org