EWEA
WIND **IS** POWER

Hellenic Association of Wind Energy Investors
Mr George Spyrou
87, Themistokleous Str.
10683 Athens
Greece

Brussels, January 28th 2005

Dear Mr Spyrou,

Please find enclosed the position of the European Wind Energy Association (EWEA) on the future of European support systems for the promotion of electricity from renewable energy sources.

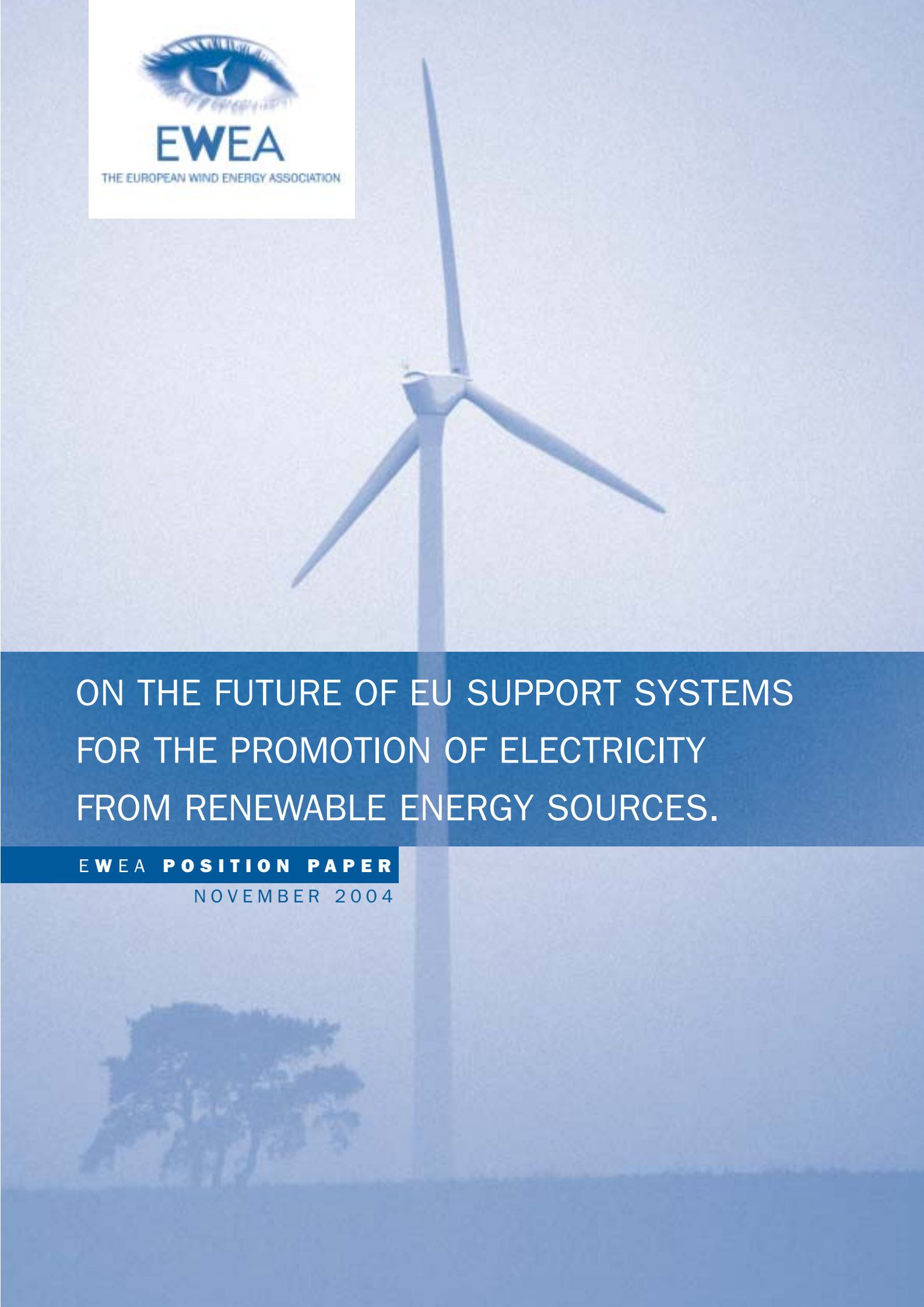
According to Article 4 of Directive 2001/77/EC (the "Renewables Directive"), the European Commission shall, no later than October 27th 2005, report on experience gained with support mechanisms in the Member States. The report shall, if necessary, be accompanied by a proposal for a Community framework for support schemes. EWEA considers the Renewables Directive to be the single most important piece of EU legislation for the European wind power industry. It is an essential contributor to maintaining Europe's global leadership in wind power, the world's fastest growing energy technology.

EWEA supports the intention of eventually adopting support mechanisms for renewable electricity that are compatible with an undistorted Internal Market. However, given the many interactions between the power markets and the markets for renewable electricity, **EWEA believes that it would be premature to put a European-wide support mechanism in place** and to force renewable electricity into an Internal Market framework when competition in the 95% of the power market for conventional electricity is ineffective and highly distorted. Therefore, any shift to a Community-wide mechanism must be well prepared, and follow after real competition has been achieved in the Internal Electricity Market.

Yours sincerely,

Christian Kjær
Policy Director
European Wind Energy Association

THE EUROPEAN WIND ENERGY ASSOCIATION
RENEWABLE ENERGY HOUSE
26 RUE DU TRÔNE
B-1000 BRUSSELS
BELGIUM
T: +32 2 546 1940
F: +32 2 546 1944
E: ewea@ewea.org
www.ewea.org



EWEA

THE EUROPEAN WIND ENERGY ASSOCIATION

ON THE FUTURE OF EU SUPPORT SYSTEMS FOR THE PROMOTION OF ELECTRICITY FROM RENEWABLE ENERGY SOURCES.

EWEA POSITION PAPER

NOVEMBER 2004

A policy briefing by EWEA, november 2004.
Contact: Christian Kjaer
christian.kjaer@ewea.org
T. +32 2 546 19 85/40

Background

Europe is the world leader in wind energy, a technology that is vital to help address the issues of security of supply, oil and gas price volatility, sustainable development, climate change, provide sustainable economic growth, technological progress and create employment and exports.

In accordance with Article 4 of the Renewables Directive[1], the European Commission, no later than 27th October 2005:

- *shall present a well-documented report on experience gained with the application and coexistence of the different mechanisms (…). The report shall assess the success, including cost-effectiveness, of the support systems (…) in promoting the consumption of electricity produced from renewable energy sources in conformity with the national indicative targets (…)".*
- *"This report shall, if necessary, be accompanied by a proposal for a Community framework with regard to support schemes for electricity produced from renewable energy sources".*

According to Article 8 of the Renewables Directive, the Commission shall present a summary report to the European Parliament and Council no later than 31st December 2005.

The future EU framework for wind power will to a great extent be influenced by the debate leading up to the European Commission reports.

[1] Directive 2001/77/EC of the European Parliament and of the Council of 27th September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market

Summary

- **The European Wind Energy Association (EWEA) welcomes the Community's efforts to create a well-functioning Internal Electricity Market. Furthermore, EWEA supports the intention to eventually adopt support mechanisms for renewable electricity that are compatible with an undistorted Internal Market.**

- **95% of the European Internal Electricity Market is based on conventional power sources and 5% is based on new renewables, including 2.4% wind power. There are numerous distortions in the 95% conventional electricity market, and competition is far from being effective.**

- **EWEA believes that it is premature to force renewable electricity into an Internal Market framework at a time when competition is far from being effective in 95% of the overall Internal Electricity Market, and whose distortions discriminate against renewable energy.**

- **Experience shows that even small adjustments to a framework can have a profound negative effect on the markets for wind power and other renewables. More fundamental changes will have an even greater effect on the markets. A dramatic shift in all Member Sttates' frameworks would jeopardise national renewable targets and undermine investor confidence.**

- **EWEA believes that a hasty move towards a harmonized EU-wide payment mechanism for renewable electricity would put European leadership in wind power technology and other renewables at risk.**

- **Any shift to a Community-wide mechanism must be well prepared, and follow after effective competition in the Internal Electricity Market has been achieved.**

- Successful frameworks require not just a good payment mechanism, but also effective policies to remove barriers to grids access, barriers in the form of administrative procedures and encourage public support.

- There is little evidence of effectiveness beyond feed-in tariffs and premiums

- It is too early to draw final conclusions on the potential effectiveness of the full range of policy options available

- Identifying the key reasons why markets are failing or successful is crucial.

- There are existing cross-border trade problems with additionality, double counting of renewable electricity production and CO_2

- Making 2010 targets binding and setting ambitious binding targets for 2020 will increase market penetration of renewables

- There are 10 main requirements that any future Community-wide Mechanism must meet in order to create a sound investment climate for renewables;

  1. Compatibility with the polluter pays principle
  2. High investor confidence
  3. Simple and transparent in design and implementation
  4. High effectiveness in deployment of renewables
  5. Encouraging technology diversity
  6. Encouraging innovation, technology development and lower costs
  7. Compatibility with the power market and with other policy instruments
  8. Facilitating a smooth transition ("Grandfathering")
  9. Encouraging local and regional benefits, public acceptance and site dispersion
  10. Transparency and integrity: Protecting consumers, avoiding fraud and free riding

Overview

- **The European Wind Energy Association (EWEA) welcomes the Community's efforts to create a well-functioning Internal Electricity Market. Furthermore, EWEA supports the intention to eventually adopt support mechanisms for renewable electricity that are compatible with an undistorted Internal Market.**

- **95% of the European Internal Electricity Market is based on conventional power sources and 5% is based on new renewables, including 2.4% wind power. There are numerous distortions in the 95% conventional electricity market, and competition is far from being effective.**

- **EWEA believes that it is premature to force renewable electricity into an Internal Market framework at a time when competition is far from being effective in 95% of the overall Internal Electricity Market, and whose distortions discriminate against renewable energy.**

- **Experience shows that even small adjustments to a framework can have a profound negative effect on the markets for wind power and other renewables. More fundamental changes will have an even greater effect on the markets. A dramatic shift in all Member States' frameworks would jeopardise national renewable targets and undermine investor confidence.**

- **EWEA believes that a hasty move towards a harmonized EU-wide payment mechanism for renewable electricity would put European leadership in wind power technology and other renewables at risk.**

- **Any shift to a Community-wide mechanism must be well prepared, and follow after effective competition in the Internal Electricity Market has been achieved.**

1. Malfunctioning markets; there are numerous distortions in 95% of the electricity market for conventional electricity, and competition is far from being effective.

The gradual development of the Internal Electricity Market (IEM) should reflect the European Community's intention to double the share of electricity from renewable energy sources by 2010. EWEA supports the Community's intention to secure the continuous development and deployment of renewable energy technologies within the framework of the Internal Market. Furthermore, we support the intention to eventually adopt mechanisms for renewable electricity that are compatible with a well functioning undistorted Internal Electricity Market.

However, EWEA is concerned about the many distortions still present in the markets that would discriminate against renewable energy sources if these were to be fully subject to the forces of the Internal Market in the short term.

New renewables (excluding large hydro) account for some 5% of EU electricity production, with wind energy accounting for 2.4%. Effective competition in the 95% of the power market that is based on conventional power should precede an Internal Market for renewable electricity.

The distortions in the 95% conventional power market include, for example: institutional and legal barriers; large subsidies and State aid to conventional players; exclusion of external costs from prices; existence of regional and national dominant players; potential for abuse of dominant positions; barriers to third party access; limited interconnection between regional and national markets; discriminatory tariffs, no effective unbundling of production and transmission. One big challenge is to make the necessary redesigns of the grid infrastructure, system management, grid regulation and grid codes that reflect the characteristics of renewable energy technologies.

It is premature to force renewable electricity into an Internal Market framework at a time when competition is far from being effective in the overall Internal Electricity Market.

Given that the renewable and non-renewable electricity market interact at a number of levels, there can be no effective competition in renewables without effective competition in the conventional electricity market.

2. Changes in frameworks always create uncertainty.

Evidence is numerous that changes in frameworks for renewables always create uncertainty. Many new initiatives for renewable electricity are currently under development in the Member States. Introducing a Community-wide mechanism now would undermine the work and efforts to develop mechanisms by Member States over the past few years.

The adoption of the Renewables Directive has sparked a positive European-wide political process of putting frameworks for renewables into place. But most Member States are still in the preparatory phase of introducing frameworks and attracting investments.

A Community-wide mechanism for electricity from renewable energy sources must be well prepared. Changing the 25 national frameworks now would undermine the work, progress and efforts that Member States have put into developing mechanisms over the past few years. A premature move towards a common approach will stop, or seriously delay, development even before it starts. It could have devastating effects on the markets in the many Member States where signs of emerging activity are beginning to show.

3. The key goals of achieving national renewable targets and maintaining investor confidence will be jeopardised due to a disruptive effect on all national markets, and put EU leadership in renewables at risk

Recent analysis by the European Commission showed that only four Member States seem to be on track to meet their 2010 targets for renewable energy, and many new policy initiatives are being introduced in Member States to better realize those targets.

It is risky and potentially damaging to the European wind industry and the current EU leadership position in wind and other renewables to introduce a common framework at this stage. Member States would fail to meet their national targets and Europe's current global leadership in wind energy and other renewable energy technologies would be jeopardized.

Article 1 of the Directive *states that "the purpose of this Directive is **to promote an increase** in the contribution of renewable energy sources to electricity production in the internal market for electricity and to create a basis for a future Community framework thereof"* (EWEA emphasis)

According to the European Commission's Strategy Paper "Medium term vision for the Internal Electricity Market" in March 2004, *"the issues relating to compatibility of support mechanisms and the desirability of not distorting cross border trade are concerns which are secondary to the main objective of ensuring a certain level RES production in each Member State on the basis of individual national targets".*

EWEA strongly agrees with the Commission's view as expressed in its Strategy Paper. The main goal is to secure that the national targets for RE are met in order to further develop the technologies, and secure the continuous deployment of renewable energy. That will ensure a future European energy supply based on cheap, indigenous and clean renewable energy.

4. Successful frameworks require more than a good payment mechanism

More than 25 years of wind power experience in Europe shows that a successful framework for the development and deployment of renewable energy requires political effort in four vital fields:

- **Well designed payment mechanism**
- **Grid access and strategic development of the grids**
- **Good governance and appropriate administrative procedures**
- **Public acceptance and support**

If one or more of these key components are missing, little progress will happen. Looking at payment mechanisms in isolation may lead to wrong conclusions about the effectiveness of a specific mechanism. It is important that any analysis of the success or failure of national support mechanisms, seeks to identify whether a positive or negative development can be contributed to the design of the payment mechanism or whether other factors in the form of administrative, grid access and / or public acceptance barriers affected the development.

EWEA recommends that the Commission's efforts to identify successful and unsuccessful approaches to support mechanisms in the Member States include identification of the sources leading to success/failure, i.e. a "cause–effect analysis". Otherwise the assessment of support mechanisms may lead to wrong conclusions.

Furthermore, it must also be acknowledged that mechanisms, although grouped in the same category, e.g. fixed feed-in tariffs or tradable green certificates (TGC), differ between Member States and even, in the case of Belgium, within Member States. The certificate models of Great Britain, Sweden, Italy, Wallonia and Flanders are not identical, and general conclusions on mechanisms depend on which country is analysed and what other measures are present.

It must also be acknowledged that, historically, no country has ever managed to develop a market for renewable electricity through the application of just one policy. Historically, success has been the result of combinations of policies as stated by the International Energy Agency (IEA)[2]:

"Significant market growth has always resulted from combinations of policies, rather than single policies. (...) In no case is there evidence of strong market growth with only one policy in place. Those countries that have experienced strong growth in "new" renewables, such as wind and solar, including Germany, Spain, the United States and Denmark, have done so through a combination of financial incentives and guaranteed prices, underpinned by strong R&D."

5. Little evidence of effectiveness beyond feed-in tariffs and premiums

From examining the experiences of different mechanisms in the Member States there is simply not yet enough experience with certificate trading mechanisms. In contrast, there is strong evidence that feed in tariffs and premiums have, and continue to, perform effectively.

It can be concluded that policies based on, fixed tariffs and premiums can be designed to work effectively. **It is too early to draw final conclusions on the potential impacts of the full range of policy options available** since more complex systems, such as those based on tradable green certificates, are at an early stage of implementation and still in an experimental phase. These must be given time to prove their effectiveness. More time and experience are needed to make credible conclusions on their potential ability to attract investments and deliver considerable new capacity.

6. Identifying the key reasons why markets are failing or successful is crucial.

EWEA recommends that any efforts to identify successful and unsuccessful approaches to support mechanisms in the Member States include identification of the sources leading to success/failure, i.e. a "cause–effect analysis". Only then is it possible to identify whether a positive or negative development can be contributed to the design of the payment mechanism or to other factors. Otherwise the assessment of support mechanisms may lead to wrong conclusions. For example, introducing feed in tariffs is not an automatic guarantee for success. Almost all countries with experience in mechanisms to support renewables have, at some point in time, been using feed-in tariffs but not all attempts con-

[2] Renewable Energy. Market and Policy Trends in IEA Countries; p. 94; OECD/IEA 2004.

tributed to an increase in renewable electricity production. It is the detailed design of a mechanism, in combination with other measures as stated above, that determines its success.

7. There are existing cross-border trade problems with additionality, double counting of renewable electricity production and CO_2

Initial experiments with cross-border trade in renewable electricity, notably from Denmark, Sweden and the Netherlands have so far been discouraging. Imports into the Netherlands came predominantly from existing renewable sources – electricity that would have been produced regardless of the increased Dutch demand. Thus, no additional renewable electricity was produced.

It is important that the ongoing liberalisation process, the development of guarantees of origin and international trading in renewable electricity and emission allowances do not unintentionally undermine the meeting of the national renewable energy targets. The potential impacts of those processes on the mechanisms must be investigated and addressed prior to introducing bilateral mutual recognition for renewable electricity based on guarantees of origin.

Regarding cross-border trade, a yet unanswered question is who receives the CO_2 benefit for the renewable electricity. Double counting of CO_2 and double counting of renewable electricity production have to be avoided to ensure transparency and maintain the credibility of renewables. These cross-border trade challenges must be resolved regardless of whether a Community framework is introduced or whether trade is only bilateral.

Initial experiments with cross-border trade in renewable electricity have so far been discouraging and resulted in no new capacity investments in renewables. Double counting of CO_2 and double counting of renewable electricity must be avoided.

8. Issue voluntary design guidelines to align incompatible mechanisms

EWEA acknowledges and supports the idea of eventually creating an Internal Market for renewable electricity. As noted in the previous section, however, such a step now would be premature, disturb current markets and put EU leadership and dominance in renewable energy technologies at risk. Any shift to a Community-wide mechanism must be well prepared, and follow after effective competition in the Internal Electricity Market has been achieved, and taken in consultation with Member States and the renewables industries.

Member States are developing different hybrids of the same generic mechanisms, which mean that, in reality, 25 different support mechanisms exist in the EU today. Consequently, if a common framework is introduced at some future point in time, these would all have to be redesigned in order to facilitate fair trade.

In order to minimise the disruptive effects of changing 25 mechanisms, a step-wise approach should be pursued. EWEA proposes that efforts in the short-term are concentrated on issuing voluntary design guidelines for support mechanisms, rather than proposing a specific Community-wide mechanism at this stage. That would guide Member States and encourage them to align currently incompatible mechanisms in the EU-25. This could gradually increase the compatibility of markets between Member States that have chosen the same type of mechanism (e.g. tradable green certificates in Sweden, Wallonia, Flanders, Italy and the UK). That would encourage the creation of cross-border "market clusters" through mutual recognition, that would provide valuable insight and experience on the road to eventually create an Internal Market for renewable electricity at a later stage.

Overall, the type of support mechanism is not the determining factor for success, it is the way the mechanism is designed and implemented. The focus of attention should be on how the mechanisms can be designed to create a sound investment environment, how current barriers in the form of grid access and administrative procedures can be overcome and what effect policy changes have on the renewables markets. The devil is in the detail, not in the name of the mechanism.

Any mechanism must fulfill certain requirements in order to encourage investments in renewables and other political objectives. Some of these are already

listed in the Renewables Directive's Article 4[3] . EWEA has identified ten such requirements which should be taken into account when designing any support mechanism – national or Community-wide. These design requirements are:

1. Compatibility with the polluter pays principle
2. High investor confidence
3. Simple and transparent in design and implementation
4. High effectiveness in deployment of renewables
5. Encouraging technology diversity
6. Encouraging innovation, technology development and lower costs
7. Compatibility with the power market and with other policy instruments
8. Facilitating a smooth transition ("Grandfathering")
9. Encouraging local and regional benefits, public acceptance and site dispersion
10. Transparency and integrity: Protecting consumers, avoiding fraud and free riding

9. Make 2010 targets binding and set ambitious binding targets for 2020

EWEA recommends that the current national targets for renewables are made mandatory and that national targets are adopted for 2020, in line with the recommendation of the European Parliament. EWEA believes that the targets for 2020 should be ambitious and mandatory. Although targets themselves do not guarantee development they act as important catalysts for development of the necessary frameworks for renewable energy investments.

Early signalling of long-term commitment through the adoption of mandatory targets beyond 2010 will not only affect the ability of the European Union to meet its long-term target – whatever it may be set at. It would also dramatically increase the possibility of meeting the existing targets for 2010, through signalling to Member States and industry that the Union is serious about renewables and that these will be part of the political agenda beyond the next five years. The setting of targets encourages investors to commit, enables stable technological development and cost reductions, and encourages research investments.

[3] Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market. Article 4:

The value of wind energy

Europe is the world leader in wind energy, a technology that is vital to address issues such as security of supply, oil and gas price volatility, sustainable development, climate change, provide sustainable economic growth, technological progress and create employment and exports.

The recent Commission Communication on Renewables[4] highlighted the benefits:

"Renewable energy has potential. This is important in a situation where the EU energy supply has structural weaknesses and geopolitical, social and environmental shortcomings, notably as regards European Commitments in the Kyoto Protocol. Developing Europe's potential for using renewable energy will contribute to security of energy supply, reduce fuel imports and dependency, reduce greenhouse gas emissions, improve environmental protection, decouple economic growth from resource use, create jobs, and consolidate efforts towards a knowledge-based society."

In two decades, Europe will be importing 70% of its energy, up from 50% today. It is clear that electricity will continue to play a large and increasing role in Europe's energy future, with half of the projected increase in gas demand expected to come from electricity. Europe faces an energy crunch, and wind power can help deliver a solution.

The general climate facing wind power bears striking similarity to that faced by planners and policy makers who sought to explore Europe's oil and gas resources. However, with the gradual market liberalisation, the conditions applying to new technologies such as wind power have changed. While oil and gas reserves are coming to an end, a huge indigenous energy source is only waiting for our ability to exploit it at a large scale. The wind power technology is progressing but it needs to do so in tandem with a policy framework comparable to those promoting the oil, gas and nuclear power sectors.

Why support schemes are necessary

It is generally acknowledged that electricity prices do not reflect the full cost to society of electricity generation.

Polluter pays principle

It is established in article 174 of the Treaty Establishing the European Community that the Community bases its policy on the environment on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.

Translated into electricity generation that would mean that production of electricity should not pollute and that it is the electricity producers' responsibility to prevent it. If they do pollute they should pay an amount equal to the damage the production causes to society as a whole.

No electricity generation technology currently exists that completely avoids pollution. Even production of renewable energy impacts the environment to a very small degree. So, in practical terms, the second best option is to make electricity generators pay for the environmental impacts they cause. These impacts can be difficult to quantify, though.

True cost of electricity

A Commission-funded project - ExternE – has tried to quantify the true costs, including environmental

[4] The share of renewable energy in the EU's Communication from the Commission to the Council and the European Parliament, Brussels 26.5.2004

costs of electricity generation. It estimates that the cost of producing electricity from coal or oil would double and the cost of electricity production from gas would increase by 30 %, if external costs, in the form of damage to the environment and health, were taken into account. The study further estimates that these costs amount to 1-2 % of EU GDP or between €85 billion and €170 billion, not including the cost of global warming and climate change.

If those environmental costs were levied on electricity generation according to their impact, many renewables, including wind power, would not need any support. If, at the same time, direct and indirect subsidies to fossil fuels and nuclear power were removed, the need to support renewable electricity generation would seriously diminish or cease to exist.

EWEA recognizes that it is not politically feasible to remove energy subsidies to conventional sources overnight or agree on measures to fully internalise external costs.

Energy taxation

Taxing conventional power production according to the environmental costs they lay on society is the ideal way to level the playing field in the European electricity markets.

Introducing harmonised energy taxes, reflecting the actual environmental impacts of each technology, is an effective and fair way of internalising environmental costs. However, the practical challenges of such an exercise are numerous. It took most of a decade before the Community reached agreement on those common minimum energy tax rates in the Community that entered into force on 1st January 2004. It will have no impact on the competitiveness of renewables. The levels agreed upon are a fraction of the external costs and practically the lowest common denominator of the Member States' current tax levels. There are numerous exemptions but no mandatory renewables exemptions which opens the possibility of levying what was initially meant to be environmental taxes on renewables as well as on conventional power sources.

Support scheme solutions

Support mechanisms for renewables are the next best solution for correcting this and other market failures in the electricity sector. Introducing support mechanisms for renewable electricity is a practical political solution to acknowledge that, in the short to medium term, there are no practical political solutions to fully apply the polluter pays principle of Article 174 of the Treaty Establishing the European Community when it comes to electricity production.

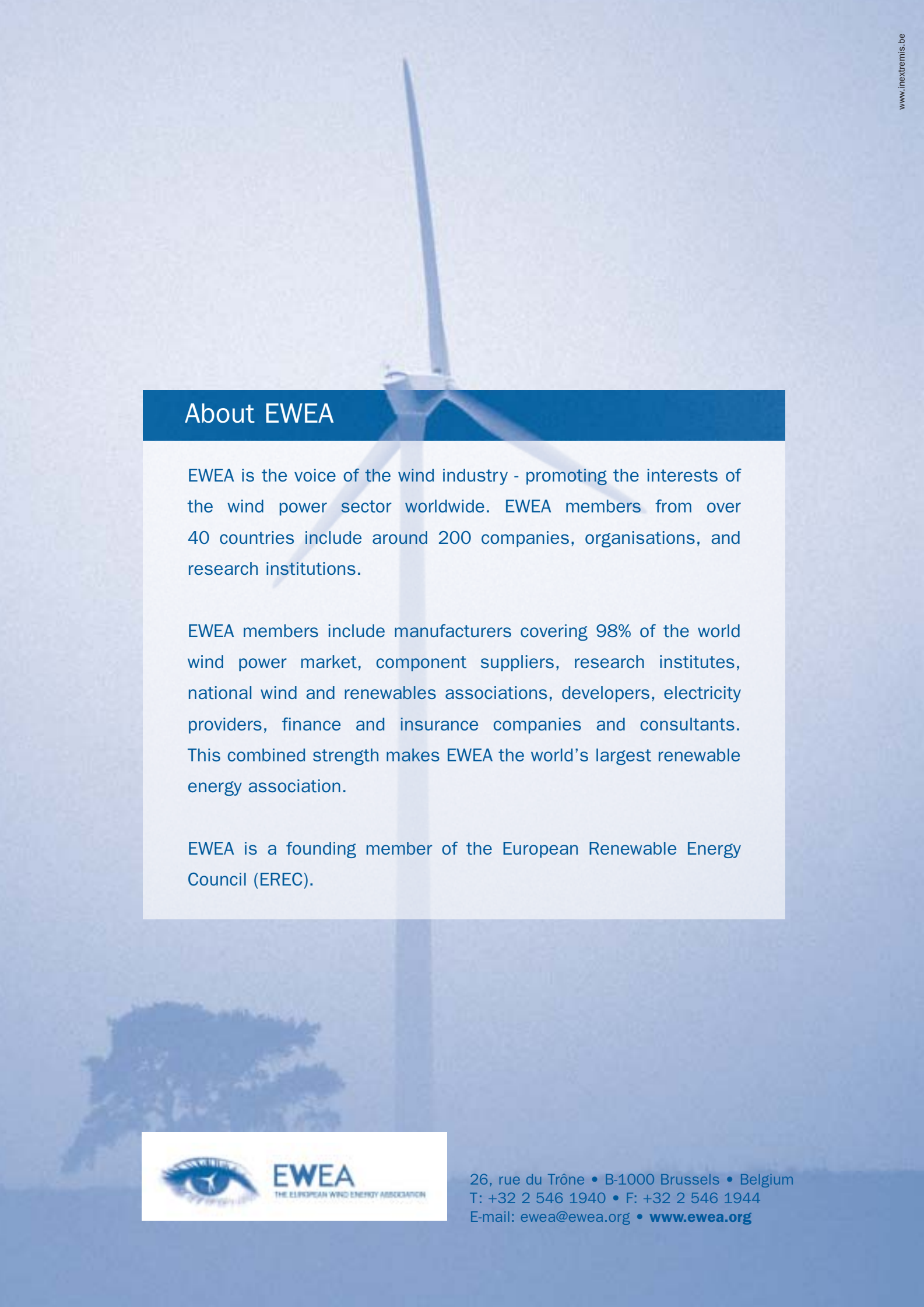
Electricity prices do not reflect the full cost to society of electricity generation. That constitutes a market failure that the Internal Electricity Market will have to address. However, it is not politically feasible to remove energy subsidies to conventional sources overnight or agree on measures to fully internalize external costs, especially taking the challenges of introducing harmonised EU-wide taxes.

Support mechanisms for renewables are compensation mechanisms for correcting these electricity market failures.

Level playing field

No electricity generating technology in history has been developed, introduced and become competitive without initial support. The EU recognises that wind power and other renewable remain at a competitive disadvantage to fossil and nuclear sources. The support mechanisms for renewable energy in the EU Member States exist to overcome the many current distortions in national electricity markets and between national and regional electricity markets.

Support mechanisms create a body of installed plant, which, over the lifetime of the wind power stations, create lower electricity prices and hedge against future fossil fuel price hikes. They form a necessary steppingstone to make wind power mainstream and fully competitive with any other electricity generating plant.



About EWEA

EWEA is the voice of the wind industry - promoting the interests of the wind power sector worldwide. EWEA members from over 40 countries include around 200 companies, organisations, and research institutions.

EWEA 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 renewable energy association.

EWEA is a founding member of the European Renewable Energy Council (EREC).

EWEA
THE EUROPEAN WIND ENERGY ASSOCIATION

26, rue du Trône • B-1000 Brussels • Belgium
T: +32 2 546 1940 • F: +32 2 546 1944
E-mail: ewea@ewea.org • **www.ewea.org**