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## **UNICE'S PERSPECTIVES ON HOW TO SUPPORT ELECTRICITY PRODUCTION BASED ON RENEWABLE ENERGY SOURCES**

### **Introduction**

UNICE firmly believes that the use of renewable energy will in time play a very important role in addressing the issue of long-term security of energy supply as well as the issue of climate change.

To become successful, the European policy on renewable energy needs to address the important challenges posed by the present promotion of renewable energy. The recent Commission Communication "*The support of electricity from renewable energy sources*" (7.12.2005) raises some of the important issues and provides some best-practice solutions. However, UNICE recommends that more initiatives should be taken in order to reach a common European policy on electricity production based on renewable energy sources.

### **1. Policy challenges regarding the production of electricity based on renewable energy sources**

The common European policy on production of electricity based on renewable energy sources (RES-E) should be stable and reliable for all parties involved and fulfil the criteria of cost efficiency (minimising promotion costs) and effectiveness. The current national (or even regional) support schemes generally lead to high costs and to dysfunctional power markets. These problems need to be addressed in the future European policy for promotion of renewable energies. Furthermore, a future European support scheme must lead to smooth integration of RES-E in the supply system and be compatible with the internal market. The cost allocation of this support scheme should create a European level playing field, without regional distortions, and take into account the concerns of industries and in particular the energy-intensive industries.

Acknowledgement of the challenges of promoting RES-E is important. In this respect, UNICE recommends that promotion of RES-E is organised in a way that:

- recognises that security of energy supply is as important as the objective of sustainable energy. It is essential for industry that there are no severe interruptions in the electricity supply, i.e. black outs, since that will disrupt the competitiveness of European industry. Promotion of RES-E must go hand in hand with increased cooperation between national transmission system operators (TSOs) on grid planning issues in order to tackle the challenge of good integration of fluctuating energy sources;

- does not hamper the competitiveness of energy-intensive European industries in particular. In some Member States the current financial cost linked to the support of renewable energy represents around 5 -15% of the total cost of electricity. This financial impact comes on top of the impact that the pass-through costs of the CO<sub>2</sub> allowance price have on electricity prices. This issue of double burden due to double regulation needs to be addressed;
- makes full use of the geographical opportunities in different parts of the internal electricity market. The EU policy could add a great deal of value if it could lead to wind installations being built where the best wind conditions are found and to solar installations being built where there is most sun. With the current different promotion schemes, wind and solar installations are placed where the conditions are not the most favourable. Thus, capital is not used in an optimal way;
- does not hamper raw material use, in particular biomass, in industries such as pulp and paper, chemicals and food industry. Subsidies granted for the production of electricity based on biomass can result in market distortions and change the availability or price of raw materials used by these industries;
- fits into a transparent, stable and competitive regulatory and financial framework that allows the price signal to stimulate investments in new capacity.

## 2. Solutions

In general the Commission's 7 December 2005 Communication has fulfilled its stated objective of evaluating national support schemes. However, UNICE believes that the present European policy on RES-E fails to deliver operational answers on how to solve the challenges listed above. Furthermore, it does not provide a workable answer on how to secure a convergence of national support systems over time.

Future RES-E policy should be developed with respect to the following aspects:

### a) Reasonable future targets

The current European RES-E Directive (2001/77/EC) sets out an overall European target for the share of green electricity in gross electricity consumption<sup>1</sup>. Based on the European target, each Member State has set targets according to the guidelines in the RES-E Directive. The future common European RES-E policy must be built upon cost-efficient fulfilment of these indicative targets based on extensive impact assessments. It is important to note that if targets are exceeded, it means a higher cost for society due to the excess support needed. Any target should be defined taking into account the fact that RES-E expansion requires a simultaneous extension or adaptation of the grid infrastructure. This is demonstrated by experience in Northern Germany, where expansion of RES-E without proper adaptation of the infrastructure leads to grid problems and hampers security of supply.

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<sup>1</sup> The target is an increase of green electricity by 2010 from 14% to 22% of gross electricity consumption.

It is essential to address these aspects because liberalisation of the European electricity market can only be completed on condition that the cross-border interconnections installed are satisfactory in terms of quantity and operational functioning.

When considering targets for electricity based on renewable energy sources from forests, waste or agriculture, it is necessary to make an assessment of the parameters characterising the full economic life-cycle of these materials if they were not used for electricity production but for the industrial manufacturing of products. Such economic analysis should assess, both for electricity production and other manufacturing processes, the (employment) benefits linked to the end-product, the added value created and the volume of material used.

b) Common criteria for RES-E support

Europe needs common criteria for support schemes for renewable electricity in order to enhance compatibility with the internal electricity market. These criteria should lead to a more unified and market-based support scheme for the EU in the long -term.

RES-E support should aim at establishing a market for renewable energies instead of separating them from the market by giving extensive and long-term support.

UNICE suggests that these criteria should include at least the following features:

- Support for electricity production should be technology-neutral, meaning that all technologies should receive the same support, and thus be directed towards the most cost-efficient technologies which have not yet become competitive in the market.
- Technologies remote from the market should be promoted through research, development and demonstration and not through higher financial support of electricity production that interferes with the proper functioning of the market.
- RES-E should be produced primarily at the sites with the best conditions (e.g. high potential for full use, suitable grid connection, closeness to consumers, etc.). The existing support schemes must not give advantages to less suitable sites (e.g. the existing German Renewable Law gives higher support to the less favourable sites in order to even out the disadvantages of these sites).
- Windfall profits should be minimised by setting reasonable targets and support levels, and by letting market forces play.
- The existing support schemes should be as compatible as possible with the liberalised market and environmental regulation. RES-E support should take into account the market value of the electricity generated. It is RES-E generators' task to take care of the market compatibility of their electricity. Furthermore, meeting special requirements in terms of balancing power and integration into the supply system should be the responsibility of the RES-E generators.

- The existing support schemes should assess the sustainability of the renewable energy production, in particular when raw materials are used for fuel. The same sustainability criteria should apply to the production of biofuels as to the production of other products on the basis of biomass. Forest management standards are an example of criteria that could be applied.

UNICE supports the development of regional cooperation on the issue of supporting RES-E, but the long term goal should be a unified European scheme. Furthermore, UNICE finds that cross-border trade in RES-E should be facilitated as this will enhance the production of RES-E in areas where production costs are low.

UNICE recognises that a transition period will be needed. However it will be important for the security of investments to design a transparent process that will allow investors to take into consideration a potential change of the support approach. This kind of certainty can be provided by only applying the new support approach for new investments.

c) Energy-intensive industries' concerns

Many industries and in particular the energy intensive industries are concerned over the cost allocation of RES-E support since they compete in a global market where prices for their goods and services are set on the world market. Ambitious support for RES-E could therefore potentially hamper the competitiveness of industries, in particular due to the expected rise in electricity prices. It would therefore be essential to protect energy-intensive industries from burdens generated by any support scheme in order to reduce the direct negative impacts. Models for burden exemptions are already in place in several EU Member States. It will be important that the exemption rules allow the parties concerned to make reliable plans (e.g. by establishing the support for RES-E for a long time in the future).

In order to secure a level playing field among energy-intensive industries, Member States should be encouraged to consider the effects that the support has on these industries and best-practice models should be promoted. Furthermore, the Commission could provide guidance in this regard.

d) Proposal for a model that allows for trade between countries

The difficulties in meeting the 2010 targets indicate that a higher degree of flexibility is needed in order to enhance the possibilities for Member States to meet national targets outside the Member State's own national territory. This is needed in order to minimise costs in some Member States. To facilitate this, UNICE suggests that the Commission initiates the development of a flexible model in which Member States have the possibility to allow for trade in RES-E. The model should avoid giving double incentives.

e) Co-operation of grid operators

In order to integrate production of RES-E, especially wind power and later photovoltaic, into the electricity grid, there is a need for a better coordination and cooperation between national grid operators. The Commission's 7 December 2005 Communication does not go into any detail on this subject. ETSO (European Transmission System Operators) has launched a study on European Wind Integration<sup>2</sup>. This is an excellent example of how European organisations and Member States can cooperate to find a solution to challenges that can no longer be isolated to a single Member State, but have cross-border impacts. The ETSO study has the potential to lead to constructive proposals that, it is hoped, will be adopted by the Commission and the Member States shortly. Further cooperation between grid operators should be encouraged.

RES-E support should take into account the necessity of back-up by conventional power plants and the need for balancing power for the feed-in of stochastic sources like wind power. Such additional costs have to be considered in the analysis before the support scheme is agreed.

f) Administrative issues

In order to allow for better long-term grid planning, UNICE proposes introducing the practice of pre-assigning locations for development of new wind power projects in more Member States. All available locations should be made accessible by harmonising the legal framework for implementing RES-E. Extensive red tape and permitting procedures are still very different in the Member States (e.g. photovoltaic electricity in Spain has a higher price than in other countries due to extensive permitting procedures).

The administrative burden of developing RES-E projects is quite extensive in many Member States. UNICE therefore supports the idea of introducing "one-stop shops" in order to lower administrative burdens for project developers. Lower administrative burdens will provide mutual benefit to developers as well as to electricity consumers in the form of lower costs.

All relevant stakeholders should be involved in the process to secure a sustainable framework for promotion of electricity based on renewable energy sources.

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<sup>2</sup> EWEA report: "Large-scale integration of wind energy in the European power supply: analysis, issues and recommendations" (December 2005).