

Renewable energy in the EU

European Parliament resolution on the share of renewable energy in the EU and proposals for concrete actions (2004/2153(INI))

The European Parliament,

- having regard to the Communication from the Commission to the Council and the European Parliament on the share of renewable energy in the EU (COM(2004)0366),
 - having regard to 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 market¹,
 - having regard to Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003 on the promotion of the use of biofuels or other renewable fuels for transport² ('the Biofuels Directive'),
 - having regard to the Communication from the Commission entitled 'Energy for the future: Renewable sources of energy – White Paper for a Community strategy and action plan' (COM(1997)0599),
 - having regard to its resolution of 1 April 2004 on the International Conference for Renewable Energies (Bonn, June 2004)³,
 - having regard to Rule 45 of its Rules of Procedure,
 - having regard to the report of the Committee on Industry, Research and Energy and the opinions of the Committee on the Environment, Public Health and Food Safety and the Committee on Agriculture and Rural Development (A6-0227/2005),
1. Welcomes the Communication from the Commission on the share of renewable energy in the EU and encourages the Commission to continue to develop an ambitious and, at the same time, realistic strategy in the area of renewable energies;
 2. Recognises the exceptional importance of renewable energies, along with energy efficiency and conservation, not only in surmounting health and environmental degradation and ensuring sustainable development which meets Europe's climate objectives, but also in contributing to innovation and both regional and national development, trade opportunities and the creation of jobs in line with the Lisbon agenda;
 3. Stresses, furthermore, that renewable energies combined with energy conservation measures reduce Europe's dependence on energy imports and thus diminish the political and economic risks resulting from these imports;

¹ OJ L 283, 27.10.2001, p. 33.

² OJ L 123, 17.5.2003, p. 42.

³ OJ C 103 E, 29.4.2004, p. 838.

4. Calls on the Commission to set ambitious but realistic targets for ultra-low or non CO₂ emitting and CO₂ neutral energy technologies to supply 60% of EU electricity demand by 2020, in support of European climate and security-of-supply objectives;
5. Points out that 'renewable energies' does not just refer to wind power, and that other renewable energies such as hydropower plants, solar-thermal power plants, geothermal plants and biomass can be managed to improve network stability;

Twenty-one renewable energies for the 21st century

6. Recognises the potential from a wide diversity of more than twenty-one different renewable energy technologies, which in principle cover not only all geographical areas but also all relevant energy uses;
7. Recognises that renewable energies are the fastest growing sector of the energy industry in Europe and even worldwide, with a growth rate above 20% a year for wind and solar photovoltaic (PV) energy, and that the development of renewable energy technologies has created more than 300 000 jobs;
8. Recognises that impressive cost reductions have been achieved in the various renewable energy technologies, in some cases up to 50% in 15 years, but notes that there must be further cost reductions, which will require the provision of strong incentives;
9. Calls for adoption of the Biomass Action Plan as announced, greater promotion of solar thermal power stations in the south of the EU and a coordinated major project for North Sea wind power to promote the rapid expansion of these renewable energies;
10. Welcomes the fact that the EU is a world leader in most renewable energy technologies as a result of the efforts in some Member States, and calls for new EU-wide initiatives and directives;
11. Recognises the potential of biomass, which must be harnessed through a systemic approach to the use and integrated maintenance of the territory;
12. Recognises, further, the potential of geothermal energy for both heat and electricity production and calls for more political attention to be paid to the potential in geothermal energies;
13. Welcomes moves to promote hydrogen technology and a hydrogen-based economy and stresses that hydrogen is an energy carrier, the advantages of which become especially evident when it is produced from renewable sources of energy, thereby effectively promoting environmental protection, sustainable development and measures to combat the greenhouse effect;

Paving the way for the EU as a world market leader for renewable energies

14. Stresses the importance of setting mandatory targets for 2020, which will send a clear signal to market actors, such as large-scale energy companies and the financial community, as well as to national policy makers, that renewable energies are the future of energy in the EU and part of its environmental and industrial strategy;
15. Calls on the Commission to continue to monitor closely compliance by the Member States

with indicative national targets and to seek to draw up a medium-term renewable energy strategy for EU covering the period after 2010, in addition to a detailed assessment of progress in achieving the 2010 objectives and value-for-money for final consumers (including the calculation of external costs) and, finally, progress made in improving energy efficiency;

16. Recalls its resolution of 1 April 2004 in which an overwhelming majority of the House called for a 20% target for renewable energies in the EU's overall energy consumption by 2020;
17. Points out that new studies, in particular those that take into account energy-efficiency scenarios for all sectors, show that, with better conditions for renewable energy and energy efficiency, a more ambitious target is feasible;
18. Asks, therefore, the Commission to develop demand-efficiency scenarios which will lead us to the overall climate change objective of peaking the global temperature at 2° C above pre-industrial level, and provide a better basis for fixing long-term targets for renewable energies;
19. Notes that with a more systemic approach to energy policies, which both integrates and speeds up, inter alia through higher incentives, the large-scale potentials of energy conservation, energy efficiency and renewable energies, a share of 25% of the EU's overall energy consumption could be provided by renewable energies by 2020; considers that a further reduction in the relative costs of renewable technologies would play an important role in achieving such a share, in particular by stimulating demand and R&D;
20. Notes that in order to provide the necessary signals for such highly differentiated energy markets as the electricity, transport fuels and the heating and cooling sectors, the EU target must be broken down into both sectoral and national targets, so that simpler and more economically-attractive conditions can be created for investment in research on, and use of, renewable energy; therefore asks the Commission to come up with mandatory targets for each of these three sectors;
21. Considers that incentives in the form of tax cuts are generally an effective way to promote renewable energies; encourages the Member States to use such instruments and the Commission to abolish all obstacles to such action by the Member States;

Heating and cooling: A major market for low-temperature renewable energies

22. Notes that the heating and cooling of buildings accounts for roughly 40% of all energy use in the EU and urges a systemic approach that will integrate best available technologies for reducing heat and cooling demand with low-density energy from low-temperature renewables or co- or tri-generation units;
23. Welcomes the progress made in the energy design of new buildings, in which the integration of solar architecture, insulation and renewable energies is leading to low-energy, passive-energy and, even, plus-energy houses which produce more energy over a year than they consume;
24. Highlights the enormous productivity gains which could result from the enhanced integration of energy conservation and renewable energies into prefabricated building

materials like roofs and facades;

25. Highlights the progress in solar thermal heating but regrets the huge gap between the current capacity per head in a few leading Member States (Cyprus, Austria, Greece and Germany) and most other Member States, and notes the high potential for solar thermal energy in the EU;
26. Highlights the importance of market penetration of cooling, i.e. thermally driven cooling based on solar thermal energy, biomass or geothermal energy input, and notes that an increase in renewable cooling is a necessary answer to the market pressure caused by the growing demand for cooling;
27. Highlights the market potential of renewable energies, such as biomass and geothermal energy, for the growing central district-heating and district-cooling sector by producing green electricity and using low-temperature "waste" energy to heat or cool buildings;
28. Highlights the potential offered by district heating and cooling networks, which as infrastructures make it possible to optimally use and combine a large spectrum of 'fossil-fuel free' energy inputs: surplus heat from electricity production, different forms of renewable heat (e.g. geothermal energy, heat/cold from deep-sea or lake water or biomass), heat pumps, and heat from biodegradable waste incineration and/or from industrial processes;
29. Notes that investment in sustainable housing requires a higher initial investment while reducing the running costs of buildings; stresses the need for Energy Efficiency Service Companies to bridge the investor-user gap and calls on the European institutions to use the proposed directive on energy end-use efficiency and energy services to create a stable market for this type of investment;
30. Asks the Commission to broaden the scope of Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings¹ ('the Buildings Directive') to all commercial buildings of more than 250 m² with regard to total energy efficiency and the use of renewable energies, and to come forward with a proposal for a directive on renewable energies in the heating and cooling sector;
31. Stresses that, in contrast to its approach to the electricity and fuel sectors, the European Union has no systematic approach towards supporting renewable energies in the heating and cooling sector, even though dependence on gas and oil imports is particularly high in this sector and the costs associated with increasing the share of renewable energies are comparatively low; therefore, calls for an EU-wide strategy aimed at making renewable heating and cooling units competitive by increasing production; observes, in this regard, that bureaucratic regulations at EU level imposed on house owners and builders are not the appropriate way to achieve this, but rather a directive that sets realistic but ambitious targets and coordinates the Member States' actions on the basis of temporary limited incentives for market access;
32. Considers, in this regard, that the Commission should present a proposal for a directive on heating and cooling in a format similar to that of the Commission proposal for the Biofuels Directive (COM(2001)0547);

¹ OJ L 1, 4.1.2003, p. 65.

33. Asks the Commission to work together with Member States to introduce by 2012, at the latest, minimum building standards for all private homes, based on passive energy (below 10 kW/m²) standards;
34. Asks the Commission and ECOFIN to take rapid and effective measures to eliminate environmentally harmful subsidies in the heating and cooling sector; asks the Member States to use effective incentives in the form of tax cuts to promote the use of renewable energies in the heating and cooling sector and asks the Commission to abolish all obstacles to the use of such energies;

Electricity: Fair market conditions for renewable electricity production

35. Recalls the target of 21% of renewable energies in the overall electricity mix of the EU set out in Directive 2001/77/EC;
36. Remembers that this target is a percentage of overall electricity consumption and asks all European Union Institutions not to forget the enormous potential for reducing electricity consumption by active policies aimed at electricity consumers as a whole;
37. Notes that the Commission welcomes the fact that certain Member States, notably Germany and Spain, have introduced an adequate policy framework to fulfil their national targets and notes that other governments are not forecast to meet the national targets that they committed to; urges the Commission to use the possibilities available to it under Directive 2001/77/EC to introduce binding national targets;
38. Asks the Commission to integrate in its 2005 report on Directive 2001/77/EC further provisions on the removal of all barriers (for example, administrative and political barriers) and provisions addressing the lack of fair and free access to the grid and non-discriminatory tariffs, which currently prevent the development of renewable sources of electricity in several Member States;
39. Notes that the Commission has identified as high the administrative barriers, as referred to in Article 6(1) of Directive 2001/77/EC, in several Member States, and urges the Commission to take action against these Member States;
40. Notes that the Commission has also ascertained that unfair access to the grid is blocking the further development of renewable electricity projects in several Member States; asks the Commission to monitor carefully the application of Article 7 of Directive 2001/77/EC and to take action against these Member States;
41. Notes that conditions on the electricity market are such that there is still no equal competition between electricity suppliers and distributors formerly structured along monopoly lines and small and medium-sized renewable energy providers, and calls on the Commission to take that fact into account, not least when assessing Directive 2001/77/EC;
42. Urges Member States to continue to develop national strategies and structures for the promotion of renewable energies with a view to reducing planning and licensing red tape, facilitating grid access, ensuring guarantees of origin, preserving network stability and reviewing environmentally harmful subsidies;
43. Calls on the Commission and the Council to allow for the 'polluter pays' principle and

internalisation of external costs in respect of every energy resource;

44. Notes that the development of wind energy in a few European countries has been impressive with more than 34 600 MW installed at the end of 2004, thus outperforming all predictions, and calls for further research to solve problems relating to the regulation of energy and network stability; notes that the installation of wind power plants should be done in an intelligent way, so that the problems felt by the population in the affected areas are limited; regrets that the full potential of biomass electricity production has not been developed as expected; welcomes in this respect the Commission's announcement of a Biomass Action Plan;
45. Recalls that the EU electricity market is still suffering from a number of serious distortions, such as insufficient ownership-unbundling requirements, ineffective wholesale markets, increased market concentration, large direct and indirect subsidies, no non-discriminatory access to balancing facilities like the large hydro-storage power plants, non-segregated decommissioning funds and non-internalisation of external costs, and insists that the Commission tackle these issues in its reports on the internal electricity and gas markets at the end of the year and put forward new legislative initiatives to put an end to those huge market distortions which penalise renewable energy production;
46. Regrets that the EU has so far failed to provide the support needed for the introduction of solar thermal power station technology onto the market; calls on the Commission to help enable the great potential of this technology to be tapped on a larger scale;
47. Takes the view that high-voltage direct-current transmission lines can provide a substantial boost to the use of renewable energies;
48. Notes the huge off-shore wind potential of the North Sea and insists that through the TEN-E funds the European Institutions should contribute to efficient coordination between the North Sea, Baltic Sea and Irish Sea border countries to integrate these potentials into the European grid system at the lowest possible cost; notes that similar large-scale wind potential exists in southern Morocco, and urges the Commission to consider a strategic partnership with the Maghreb countries on renewable energies;
49. Asks that in the longer term, a harmonised European incentive system be created which fulfils the following criteria, it must:
 - (a) contribute to the achievement of both the current targets and more-ambitious future targets;
 - (b) be compatible with the principles of the internal electricity market;
 - (c) form part of a systemic approach towards the development of renewables which takes into account the characteristics of different sources of renewable energy, together with the different technologies, and geographical differences;
 - (d) promote the use of renewable energy sources in an effective way, and be simple and, at the same time, as efficient as possible, particularly in terms of cost;
 - (e) internalise the external costs of all energy sources;

(f) include sufficient transitional periods for national support systems to maintain investor confidence;

and considers that, based on these criteria, uniform Community legislation on European feed-in systems could make sense in the long term, but that a quota or tendering model could also be taken into consideration provided that the current weaknesses of such models, which have come to light in a few Member States, can be eliminated;

50. Draws attention to the presence within the European Union of islands with, for example, independent power plants which rely principally on advanced hybrid generating technology using renewable forms of energy combined with storage technology to enhance their effectiveness; calls on the Member States and the Commission to take further initiatives in this direction; calls on the Commission to study best practices regarding network administration so as to resolve the problems of linking up to renewable energy, in particular to wind and solar energy networks;
51. Notes that part of the production of electricity from renewable technologies, mainly PV sources, is still expensive; encourages the Commission and Member States to promote measures to reduce the costs involved, mainly through research and development (R&D), and to draft incentives in such a way that improvements in technology and reductions in costs will continue;

Transport: Efficiency first, renewable fuels second

52. Identifies the transport sector as creating huge dependence on oil imports at highly volatile prices, causing significant health problems due to air pollution and being responsible for the fastest growing CO₂ emissions;
53. Takes note that in the transport sector efficiency gains through structural measures like better urban and regional planning, modal shifts in goods and passenger transport and the gradual raising of efficiency performance standards for vehicles and airplanes are crucial and complementary to renewable fuel strategies;
54. Urges the Commission to use the analyses of the overall environmental impacts of fuels - the so-called 'well-to-wheel' energy chains - as developed by the Commission's Joint Research Centre in the CONCAWE study before initiating major EU policy measures in this field;
55. Asks Member States to reach the targets set in the Biofuels Directive and to apply the fiscal incentives allowed under Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity¹; considers that promoting the use of biofuels will create new opportunities for sustainable rural development and open new perspectives for innovative agricultural products; hopes that the results of the assessment of the technical specifications for blending ethanol with conventional fuels are satisfactory and that it will be possible to modify as soon as possible the annexes of Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council

¹ OJ L 283, 31.10.2003, p. 51. Directive as last amended by Directive 2004/75/EC (OJ L 157, 30.4.2004, p. 100).

Directive 93/12/EEC¹;

56. Asks the Commission to include in its Biomass Action Plan a mandatory, gradually progressive obligation on fuel companies to include biomass based fuels in their sales;
57. Stresses that the use of ethanol for fuel will contribute to boosting agricultural areas in the EU and increasing the value of agricultural raw materials; considers that given recent reforms and cuts in financial support (CAP, sugar), promoting the use and production of ethanol for fuel could offer this sector a new outlet;
58. Calls on the Commission, in the light of the emerging technologies, to exploit the potential of bioenergy and biofuels in conjunction with sustainable agriculture and forestry and sustainable management of waste within the CAP and the EU waste strategy;

Biomass: The sleeping giant amongst renewable energies

59. Notes that biomass has many advantages over conventional energy sources, as well as over some other renewable energies, in particular, relatively low costs, less dependence on short-term weather changes, promotion of regional economic structures and provision of alternative income sources for farmers;
60. Regrets therefore that the enormous potential of biomass in the field of renewable energies has not been exploited in line with its technical potential at feasible cost; welcomes therefore the Commission's announcement that it will present a Biomass Action Plan and encourages the Commission to draft an ambitious document which includes concrete, legally binding proposals;
61. Stresses that the benefits of biomass in the area of electricity are particularly felt where installations are designed in such a way as equally to use power, heat and cooling;
62. Asks the Commission and the Member States to use the Structural and Cohesion Funds to promote the use of biomass;
63. Asks the Commission and Member States to use the enormous potential of the second pillar of the CAP (rural development) to promote the sustainable use of biomass;
64. Asks the Commission to include the eco-efficient use of biomass in its priorities for the specific programmes under the 7th Framework Programme for Research and Technological Development (FP7);
65. Highlights the enormous potential of co-firing of biomass and fossil fuels (e.g. coal), where the share of renewable energies can be increased in the short term and cost-efficiently, whereas in the long term installations that work only with biomass have to be built;
66. Urges Member States to ensure that national taxation policy does not hinder the development of biomass production;
67. Encourages the Member States to examine their tax systems, abolish all unnecessary tax burdens for users of biomass and consider tax cuts as effective incentives;

¹ OJ L 350, 28.12.1998, p.58. Directive as last amended by Regulation (EC) No 1882/2003 (OJ L 284, 31.10.2003, p.1).

68. Welcomes the initiative of the Commission to set up a Biomass Action Plan; however, as it is a complex and controversial issue, calls on the Commission to hold widespread public and stakeholder consultations in order to set up a balanced and ambitious working plan for the future;
69. Takes the view that steps to encourage greater use of biomass in the production of a renewable form of energy using sustainable production methods must not provide an excuse for the EU not to pursue research aimed at achieving greater energy efficiency (cutting down the energy used for fuel, heating, electricity, etc.), a potential means of lowering the financial burden of farmers;
70. Calls for the rules on coexistence and labelling that apply to the cultivation and use of genetically modified organisms in food production to apply also in the area of renewable energies;
71. Recognises the contribution made by the CAP to the production of renewable energies, via biomass and biofuels, and urges that their further development and use be encouraged; considers it indispensable to increase the possibility of the co-funding of investment schemes by the European Agricultural Fund for Rural Development and the other Structural Funds so as to ensure the balanced and rational development and use of renewable energy provided that the energy and environmental outcomes of this use prove positive and compatible with sustainable production methods;
72. Calls for the use in energy production of agricultural and forestry by-products, such as crops grown on marginal land, hedge clippings and forestry by-products (waste wood), to be promoted as a priority, in order to largely exclude competition with essential food production;
73. Recognises the potential of renewable energy production to simultaneously and effectively diversify and secure farm income, create jobs, protect nature and produce clean energy; points out, however, that the security of food supply must continue to take precedence over energy production; considers, therefore, that measures are necessary to prevent food production being replaced by energy production in good agricultural locations and food imports into the EU becoming still more numerous;
74. Recognises the forestry sector as an unexploited source of energy that can play a vital role not only in developing and expanding the biomass market but also in bringing the energy source closer to the consumer;

Innovation: The importance of better coordination between the European, national, local and regional levels

75. Insists on the fact that a coherent European renewable energy and energy efficiency strategy is only achievable if a better interaction between all relevant actors takes place; stresses particularly the importance of the local and regional level in this strategy;
76. Calls for a new Intelligent Energy for Europe program under the Financial Perspective 2007- 2013 with significantly increased funding in order to boost networking around best practices and to stimulate 100% renewable communities;
77. Supports the Commission's view that the promotion of renewable energies should in future

be a key element of European structural policy; and points out that this will open up new opportunities for the new Member States in particular to strengthen their small and medium-sized industries;

Research and development: A priority for renewable energy and energy efficiency

78. Notes that solar thermal electricity, marine renewables such as sea current, wave, tidal and osmosis energies are potential, new areas for generating renewable electricity and that EU R&D should heavily invest in them;
79. Welcomes the role of the EU as the world leader in renewable energy technologies;
80. Notes that in the energy field all non-mature energy technologies need a certain amount of support in the first years of development and highlights the fact that the International Energy Agency notes that between 1974 and 2001 only 8,2% of total energy R&D funds of OECD countries were allocated to renewable energies;
81. Insists that in the upcoming FP7 specific programmes a substantial amount be dedicated to renewable energies and to energy efficiency, given the multiple benefits of renewables for climate change, energy independency and security of energy supply;
82. Stresses that the FP7 must include increased funding for renewable sources of energy and energy efficiency; stresses the need to bridge the gap between the demonstration, dissemination and marketing of renewable energy technologies and to focus on research into offshore windparks;
83. Insists that the Community's main financial instruments, notably the Structural and Cohesion Funds, as well as the financial support made available through the Community's international co-operation programmes, the European Neighbourhood and Partnership Instrument in particular, should be oriented towards large-scale investment in new and best performance renewable and energy-conservation technologies;
84. Calls on the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD) to set escalating targets for the share of renewable energy in their respective energy loans portfolio and to make the prevention of greenhouse gas emissions an indispensable criterion in the selection of projects to be supported;
85. Believes that technology platforms should be foreseen for solar electricity production, for wind power, for biomass and for integration of renewable energies into the building sector including renewables-based combined heat and power and district heating and cooling (CHP/DHC);
86. Encourages the Member States to invest in education in the domain of renewable energies to make sure that professional operators and the general public are better informed;
87. Takes the view that research is needed urgently, especially in the areas of forecasting and temporary storage of energy generated from volatile sources such as wind and solar power;
88. Calls for extension of the existing exchange-of-information procedures and for improvements in the transparency of databases in order to allow for more multilateral co-operation in environment research and planning;

Export strategy, developing policy

89. Insists on the responsibility of the EU in assisting least and less-developed countries and emerging economies in developing, promoting and financing adapted renewable technologies;
90. Invites the EU to continue to defend its position as world leader in this field and its commitments made at the Johannesburg World Summit on Sustainable Development of 26 August to 4 September 2002 and to use its influence to further strengthen an efficient renewable energy deployment policy in the relevant international bodies;
91. Points to the importance of renewable energies in development cooperation and in the context of the Euro-Mediterranean Partnership;
92. Calls on the Commission to provide greater support for the use of solar thermal power station technology in the southern and eastern Mediterranean;
93. Notes that there is a huge potential for cooperation with North African countries and the Mediterranean region in the harvesting of solar, geothermal and wind energy, for the further development of these regions as well as the export of technology from, and import of electricity into, the EU market;
94. Calls upon the EU to help foster the use of renewable energies in developing countries in the interests of poverty alleviation, conflict prevention and sustainable development;
95. Calls on the Commission and Council to treat the promotion of a sustainable energy supply as a priority in development aid and especially in poverty reduction strategies, and to urge leading financing institutions such as the EIB, the EBRD, the World Bank and national export credit agencies to assign priority to investment in renewables and energy efficiency so as to encourage and facilitate development in that direction;

European Union Institutions as flagships for renewable energies

96. Asks the European Union institutions to set positive and visible examples to European citizens by the use of renewable energies in their own buildings and modes of transportation;
97. Calls on its Bureau to make a long term commitment to the gradual phasing in of renewable energies in the electricity, heating, cooling and transportation needs of the Parliament and to combine this effort with measures to increase energy efficiency in the operation of the Parliament;

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98. Instructs its President to forward this resolution to the Council and the Commission.