



## Resolution 974 (1991)<sup>1</sup>

# Renewable energy sources and solar hydrogen

Parliamentary Assembly

1. The Assembly notes with concern that world energy supply is heavily dependent on fossil fuels of which there are limited reserves unevenly distributed over the planet. The concentration of nearly 60% of the world's oil reserves in the Middle East is a permanent threat to peace in that region.

2. Among human activities the burning of fossil fuels is the main reason for the increase in the concentration of carbon dioxide in the atmosphere and therefore it is also one of the main contributors to the man-induced greenhouse effect. Burning fossil fuels also releases pollutant gases such as SO<sub>2</sub> and NO<sub>x</sub> and mutagenic and carcinogenic particles endangering human health.

3. In theory, the potential of renewable energies is more than enough to meet the needs of mankind. World energy consumption in one year is equivalent to the solar radiation that reaches the earth in only forty-five minutes. This energy can be used either by converting direct solar radiation into heat or electricity or through atmospheric winds, ocean thermal energy, hydropower or biomass including biotechnology. Other renewable energy sources are the waves and tides (ocean kinetic energy) and geologic heat (geothermal energy). However, its full development will take several decades in which conventional energies are still necessary. Efforts in research, development and demonstration need to be increased both at the level of the public and industry, as the share of renewable energies in the total energy supply will depend to a certain extent on the amount of public and private investments in renewable energy technologies.

4. It should be noted that renewable energies produce less impact on environment and human health. No difficulties arise from waste or reactor accidents and there are no traces of gas which are harmful to the earth's atmosphere. Renewable energy sources should be used only to the extent that they do not damage the "renewability" of the environment ; for instance, very large-scale hydroelectrical dams should be excluded as well as the intensive use of biomass whenever its potential cannot be renewed.

5. The Assembly believes that energy policy should be linked to environment policy and that therefore energy conservation, through its efficient use and the gradual replacement of traditional energy sources with renewable energies, should be among the goals of any sound energy policy.

6. It notes, however, that renewable energies have not been a priority in European research and development budgets in the field of energy. Indeed, research and development in renewables have stagnated or decreased in many European countries since 1981, despite their contribution to the solution of many technical problems, the reduction of a number of uncertainties and the establishment of a solid technical basis.

7. Therefore, in order to prepare for a sound long-term energy policy that would secure energy supplies, protect and improve the quality of the environment and ensure a rational utilisation of natural resources, the Assembly calls on member states :

7.1. to pursue, particularly by continuing present efforts, research, development and demonstration programmes at national and international levels, and periodically assess them from the techno-economic point of view, in relation to market potential ;

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1. See [Doc. 6456](#), report of the Committee on Science and Technology, Rapporteur : Mr Scheer. Text adopted by the Standing Committee, acting on behalf of the Assembly, on 25 November 1991.



- 7.2. to review priorities for further development of renewable energy and energy-saving technologies, in co-ordination with European and international organisations and focus on those which seem most promising, considering each country's resources and constraints ;
- 7.3. to compile national inventories of renewable energy resources and disseminate these inventories as widely as possible at international, national, regional and local levels ;
- 7.4. to promote co-operation among industries producing equipment for the exploitation of renewable energy sources and promote the transfer of technology and co-operation between small and medium-sized enterprises to facilitate their adjustment to potential demand ;
- 7.5. to promote and co-ordinate the transfer, on a non-profit-making basis, of renewable energy technologies from the industrialised countries to the Third World, inter alia by :
  - a. setting up an international renewable energy agency (IREA), for which the International Atomic Energy Agency is a case of reference, as recommended by the United Nations Solar Energy Group on Environment and Development (UNSEGED) and the Austrian Government. Such an agency should work in connection and co-operation with existing United Nations agencies (IDA, Unesco, FAO, WHO, WMO, UNDP, UNIDO, UNCTAD, UNEP, the World Bank and regional development banks) and with OECD's International Energy Agency ;
  - b. setting up a network of research institutes on renewable sources of energy as recommended by the United Nations consultative group of high-level experts on new and renewable sources of energy and as it is now implemented by the European Renewable Energy Centres (EUREC) ;
- 7.6. to guarantee tariffs for the supply to the distribution network of energy generated from renewable sources in the light of Italian and German legislation in force since 1 January 1991 ;
- 7.7. to consider the introduction of technologies for the use of renewable energies in private homes, small and medium-sized enterprises, agricultural facilities, etc., through financial subsidies and tax benefits ;
- 7.8. to ensure that in public investment the possibility of using renewable energy and energy-saving measures is taken into account ;
- 7.9. to introduce, where appropriate and necessary, legislation and/or administrative procedures which would help to overcome, on a non-discriminatory basis, obstacles to the exploitation of renewable energy sources ;
- 7.10. to consider the increase or the introduction of taxes on fossil energy to take account of the effects of such energy on the environment and human health ; national policies in this respect should be co-ordinated at international level (for example, agreements regarding CO<sub>2</sub> emissions) ;
- 7.11. to ensure that information on renewable energy and energy-saving technologies is widely circulated among those who could best develop their utilisation either as producers or consumers of energy ;
- 7.12. to ensure that the teaching of renewable technologies is included in the curricula of the appropriate university or other post-secondary-level studies (for example, solar passive design in architecture).