

Memorandum for the Establishment of an International Renewable Energy Agency (IRENA)

by EUROSOLAR, the European Association for Renewable Energy

Summary

The global climate changes, the impending exhaustion of fossil energy sources, the dangers of nuclear based security as well as the proliferation of atomic weapons will result in our relying globally on Renewable Energy. This maxim applies for all countries throughout the world, for developing countries as well as industrial ones. Time is pressing; the introduction of Renewable Energy is not keeping up with increasing energy consumption.

Industrial countries with established systems of conventional energy supply need to implement a thorough structural change to replace conventional energy sources with renewable ones, and in the meanwhile make greater efforts to reduce their over-proportional energy consumption.

Developing and transitional countries, also have an increasing demand for energy which is necessary for their economic development. Most of them are still at the stage of introducing efficient energy systems, especially in rural areas. It is reasonable to conclude that they should start out with new technology for Renewable Energy, rather than going the long way round via nuclear and fossil energy systems. Because most of mankind lives in developing countries, a mass introduction of these new types of technology are not only in the interest of these countries, but in the interest of mankind as a whole. However, to date the broad technological and industrial know-how for the use of Renewable Energy is only available in a few industrial countries.

The fundamental structural difference between conventional and Renewable Energy is that conventional ones are mostly supplied by large power stations, renewable ones mostly by smaller systems. Hence widespread participation in promoting Renewable Energy is necessary. Moreover, Renewable Energy systems are usually less complex, so that developing countries could well build their own systems. Unfortunately, so far this has not been the case. A prerequisite for the introduction of this new technology is therefore a speedy increase of the number of potential participants, who can organize a non-commercial transfer of knowledge and technology.

Since this transfer has to be implemented quickly and on a broad scale, there should be a specialized international agency expressly created for this purpose. The proposal is for the creation of an "International Renewable Energy Agency (IRENA)".

IRENA should be supported and monitored by member governments. Membership must be open to any country that supports IRENA within the framework of its statutes. The agency is particularly important to developing and transitional countries which have few means of their own to organize transfers of knowledge and technology. The G8-"task-force" recommendations, to introduce new technology for using Renewable Energy for 1 billion people within the next 10 years, would not be possible without an organisation like IRENA.

One of the tasks of IRENA will be to advise governments on:

- drawing up national programmes for the introduction of Renewable Energy;
- supporting education, training, and the dissemination of information about Renewable Energy;
- implementing training activities for administrators, technicians, craftsmen and for small and medium enterprises (SME);
- the cooperative foundation of regional centres of research, development, and transfer;
- evaluating and processing information on applied technology and best practice experience;
- advising on and arranging financing options for Renewable Energy;
- collecting data and drawing up statistics.

IRENA's tasks should be complementary to the activities of governmental and non-governmental organizations and enterprises. It shall not replace their activities, but support them if necessary and be active especially in those countries and regions where there are no relevant activities so far. It shall mainly work towards establishing and linking existing structures. It is a global project to help people help themselves to introduce new technologies for using Renewable Energy.

These are the advantages of IRENA:

- a competent international structure for non-commercial transfer of technology;
- consistent introduction and proliferation of Renewable Energy;
- a global contact point for development and concepts in the field of Renewable Energy;
- global support for activities that make the use of Renewable Energy more efficient.

The organizational model for this agency is the "International Atomic Energy Agency (IAEA)", which was established in the 50s. Its task, among others, is the non-commercial transfer of nuclear technology. What was thought necessary for nuclear energy decades ago, is now imperative for Renewable Energy, in a specialized new agency. As world-wide interest in nuclear energy wanes, interest in the utilization of Renewable Energy is growing.

Memorandum

Renewable Energy: helping create an ecological world economy

In recent years, the use of renewable forms of energy has found increasing recognition as one of the foundations of an ecologically responsible world economy.

Nowhere is this more true than in the nations of the Third World. These countries require help in making renewable sources of energy the core of their efforts to meet growing energy demands, so that future expansion can be achieved in an increasingly self-reliant fashion. In no other area – with the exception of agriculture – is "helping others help themselves" more crucial, and nowhere are the prospects for success better. If no action is taken, there is risk that the Third World countries will copy the energy policies of the industrialised nations.

Without a strong commitment to renewable forms of energy, the countries of the Third World will

- add to the world's climatic problems, due to the increased demand for energy that automatically accompanies economic expansion,
- spend an increasingly disproportionate share of their comparatively small budgets on importing primary energy, which would put a strain on their developing economies (particularly those without access to reserves of fossil fuel) and have negative effects on social infrastructures as well as on the reliability of the energy supply
- continue the trend toward a centralisation of their populations, leading to ever bigger cities with ever greater slums, because the infrastructure needed to provide conventional forms of energy to rural areas – where the majority of the population lives – is too expensive.

But industrialised nations, too, are facing the challenges of moving from established forms of conventional energy production to renewable forms of energy – challenges made all the more difficult due to insufficient know-how and planning.

Only with the increased application of technologies designed for the use of renewable forms of energy can we put an end to the vicious circle and insure a healthier global climate, global and regional environmental protection as well as economic expansion. Besides making emission-free energy available, these technologies reduce the dependence on primary energy imports and save money usually spent on the infrastructure needed to distribute conventional forms of energy. Currently, two billion people live in areas of the globe with no access to power grids. Renewable Energy can be collected and converted for use at the very location where

energy is needed. It's the only way of making power available without building expensive energy grids, and the only way of making fuel available without having to transport it over long distances. In order to raise awareness of potential uses in developing countries, and to thus increase the number of those involved, it is necessary to ensure the non-commercial transfer of technology.

Until now, the techniques for exploiting Renewable Energy have been primarily developed in a handful of industrialised nations. Germany, Japan, the United States, Switzerland and Denmark, and – to a lesser degree – Spain, the Netherlands, the United Kingdom, Austria and Australia have, during the last twenty years, invested in research and development and created programmes to introduce Renewable Energy to the market. Thus, the corresponding industries exist mainly in these countries. The technology transfer resulting from the commercial export of Renewable Energy systems is, in itself, insufficient to correct existing world-wide discrepancies. Trade in Renewable Energy also ultimately encounters obstacles stemming from a lack of information and training.

In terms of renewable sources of energy, most nations exhibit

- insufficient research and development activities,
- a lack of familiarity with the potential uses of renewable forms of energy on the part of decision-makers in the political and economic spheres,
- insufficient technical knowledge and trained technical experts, as well as educational programmes related to the uses of Renewable Energy,
- a lack of financing institutions for small investors,
- a general lack of public awareness about the possible economic benefits of using Renewable Energy,
- the non-existence of policies geared toward introducing these forms of energy.

In recent years, a growing number of international organisations and non-governmental organisations have taken initiative to introduce new technologies for the use of renewable forms of energy. Each of them has run into the obstacles mentioned above, however, which they cannot overcome single-handedly and not without enormous additional organisational and financial burdens. Typically, the costs incurred in solving these problems well exceed the costs of the installations themselves, rendering them inefficient. This is also true of projects within the context of foreign aid. A considerable number of projects peter out and become so-called "solar ruins" due to a lack of qualified operations and service personnel. In addition, the ratio of personnel costs to investment costs in foreign aid projects is disproportionately high.

The International Renewable Energy Agency (IRENA)

As we see, there is a great need to consolidate international efforts in the form of an International Renewable Energy Agency focusing systematically on the non-commercial transfer of technology for the use of renewable forms of energy – one which can play a central role in the distribution of information and in the areas of planning and development. In the past, none of the existing international organisations have been able to completely fill this very specialised role, due mostly to statutes which have required them to place their priorities elsewhere. A specialised central body could make an enormous difference in lessening the load placed on individual initiatives for Renewable Energy, and allow them to be conducted more rapidly.

The creation of such an agency was first suggested in 1980, in a report published by the North-South Commission chaired by Willy Brandt. The idea was the main topic of discussion at the first UN conference on Renewable Energy in Nairobi (1981), but was rejected by the industrialised nations, which were not convinced of the necessity of such an agency. In 1990, EUROSOLAR reiterated the proposal in a memorandum to the Secretary General of the UN. In 1991, Greenpeace also called for the creation of such an agency.

The Austrian government headed by chancellor Franz Vranitzky presented EUROSOLAR's suggestion for the creation of an agency to the General Assembly of the United Nations in 1990.

The recommendations made by the United Nations Solar Energy Group on Environment and Development (UNSEGED) presented to the Rio conference (1992) and those of the Interparliamentary Conference on Global Environment, chaired by U.S. Vice President Al Gore in Washington (1991) also proposed the creation of such an agency. The suggestion was not included in Agenda 21, however, because the idea of a new international organisation was rejected.

There were various reasons for these developments. The fact that renewable forms of energy could play a significant role in the energy supply was not yet widely recognised at the beginning of the 1990s. Then, as now, any suggestion to create a new international body was generally unpopular, due to widespread scepticism about the effectiveness of organisations already in existence. The majority argued for working within the framework of existing UN institutions. Additionally, there was (and is) strong opposition to the use of Renewable Energy because they create competition for the commercial structures of conventional forms of energy supply. Today as well, it would be unrealistic to make the creation of an agency for

Renewable Energy contingent upon a global consensus amongst all governments and organised energy interest groups.

A decades' worth of practical obstacles have not stalled the idea of creating such an agency; on the contrary: the need has become clearer than ever before. The necessity for the new technologies for the use of Renewable Energy has, by now, found general acceptance, and the pace at which this is happening is much too slow. The idea that such an agency must only come about as the result of a consensus taken at a global conference of governments has, meanwhile, also been discarded. As with the founding of the International Atomic Energy Agency in 1958, a movement on the part of just a handful of governments suffices for the creation of such an agency, which would offer membership to all interested nations, either presently or in the future. By putting its basic commitments into practice, the agency can establish a positive reputation and thus attract new member countries.

Existing international organisations can meet demands with neither the depth nor the degree of specialisation this vital field requires. Each of them – UNEP, UNDP, FAO, UNIDO and UNESCO as a sub-organisation of the UN – has a much broader mandate which makes it impossible to concentrate solely on the use of renewable forms of energy. The International Energy Agency (IEA) is an organisation representing the OECD countries which, though incorporating all types of energy supply, focuses to a large degree on fossil fuels, thereby limiting the prospects for alternative forms. Taken together, the organisations mentioned are no substitute for an International Renewable Energy Agency. Similarly, IRENA would not be designed to replace or eliminate existing organisations operating in the field of Renewable Energy, but rather would work together with and aid in the efforts of these groups and non-governmental organisations.

During the 1990s, energy agencies focusing on Renewable Energy and energy efficiency were founded in many industrialised countries and in a few developing nations. Most of these operate on a regional level, some on a national one. Within Europe, these agencies are organised under the larger FEDARENE. The work of this organisation can be seen as proof of the necessity for an International Renewable Energy Agency.

The recommendations of global climate conferences, as well as the current initiative to mobilise renewable forms of energy introduced by the G8 nations at the G8 summit in Okinawa (July 2000), indicate the extremely urgent need for the wide-spread re-orientation to renewable forms of energy. The realisation of these recommendations is, however, completely dependent on an extensive and efficient,

non-commercial transfer of technology. This goal can hardly be achieved without first creating a competent, specialised institution.

The Goals and Methods of IRENA

1. IRENA will help interested states close developmental gaps between their own and other national economies and to build up a functioning infrastructure for the use of renewable forms of energy. It will work in conjunction with the activities of governmental and non-governmental organisations, i.e. support their activities where necessary and become active where no Renewable Energy-related activities are currently being conducted.

More specifically, IRENA will

- advise federal governments, regional administrations and municipalities in the development of programmes to introduce new technologies for the use of Renewable Energy;
 - support the creation of research and development institutes, of "Centers of Excellence" and of national and regional energy agencies;
 - drive forward the development and co-ordination of global standards of quality control and of discrimination-free norms;
 - promote the exchange and dissemination of information about the latest developments in technologies for the use of renewable forms of energy and for energy efficiency, as well as promoting the "best practices" for the use of such technologies;
 - conduct educational and training programmes and develop the relevant curricula;
 - promote the exchange and training of scientists, technicians, and managers in related fields;
 - support the creation of specialised service providers and of small- and medium-sized enterprises (SMEs) operating in the field of Renewable Energy, as well as advising countries interested in starting their own production of technologies for the use of Renewable Energy;
 - help in organising the financing of Renewable Energy;
 - publish statistical studies.
2. IRENA will be financed through the payments of member nations. The share of the financing to be carried by each individual nation will be based on UN criteria.
 3. IRENA will work in close co-operation with other specialist organisations and organs of the United Nations (IDA, UNESCO, FAO, WHO, WMO, UNDP, UNIDO, UNCTAD, UNEP), as well as with the World Bank and other foreign aid banks.

IRENA will assist these organisations operating in the areas of agriculture, forest preservation, development aid, environmental protection, education, science and health by providing advice, support and aid in the foundation of projects related to the introduction and use of renewable forms of energy and energy efficiency. Recognising the valuable work of UN organisations in the field of Renewable Energy, IRENA will make knowledge available for transfer at the highest global communication standards.

4. IRENA will focus its efforts on the latest technologies for the use of renewable forms of energy (solar thermal, photovoltaic solar energy, wind power, regenerative biomass, wave and tidal power), including the exploitation of small hydro-electric power systems.

Arguments for the creation of an IRENA

1. By now, it has been generally accepted that in order to protect an endangered global environment, international efforts must be made as quickly as possible to increase the proportion of the world's energy demands being met by new technologies for the use of Renewable Energy. The energy nature makes available to us in the form of Renewable Energy sources is, in fact, significantly greater than the actual amount of energy consumed by the earth's population, even at its current significant rate of growth. There are any number of practical technologies for the use of solar energy sources, particularly solar radiation, wind power, hydro-electric power and biomass.

2. Given the proper location and competent application of available technologies, Renewable Energy can be exploited immediately without any economic disadvantages in comparison to conventional forms of energy. In fact, there are even economic benefits.

This is especially true in the case of

- small hydro-electric power systems;
- solar thermal power generated by facilities upwards of 100 MW in appropriate climate regions;
- photovoltaic solar energy in an increasing number of applications, including: small, self-charging appliances; integrated use as building components in the field of solar architecture; in solar-electric refrigeration appliances, and in so-called power generation "islands", i.e. in isolated locations where large investments would be necessary to transport and access power;
- biomass, especially as a way to produce fuel, which could eliminate the need for fuel imports;

- wind energy employed as a source of power generation, as well as in the areas of seawater desalination and water purification;
- small solar thermal systems used to generate heat or for drying processes in agriculture.

3. The examples mentioned above show the great scope of possibilities already available to us in the area of solar energy technologies. These possibilities can be realised only in as far as the following four basic points receive greater consideration in the political and economic realms:

- Environmental and social factors must be considered an integral part of any mid and long-term economic planning. Every commercial activity is fundamentally dependent on an intact natural environment, which insures the health of the human population and that natural raw materials continue to be available. Properly applied, solar energy not only has the lowest social costs, it also avoids doing irreparable damage to the earth's environment.
- The use of solar energy generally increases a country's chances to become self-sufficient in terms of energy supply and is therefore a prerequisite for greater independence. Furthermore, especially for countries with tropical and sub-tropical climates (i.e. primarily for developing countries), solar energy has the potential to become an important export commodity and thus contribute to a given country's participation in a reformed international marketplace based on fairness.
- The cost effectiveness of the use of solar energy will increase in direct proportion to growth in modern mass production of solar energy technologies.
- The existing Catch-22 situation – there is no market for this technology because it is too expensive, and it is too expensive because there is no market for it – can be rectified. One condition is a political commitment to financing the introduction of Renewable Energy to the market and the enabling of mass production. Initial access to a segment of the energy market brings with it an immediate reduction in the costs of manufacturing, thus opening up an ever expanding free market with ever decreasing costs for Renewable Energy. It is therefore mandatory, when analysing the economic potential of solar energy, to consider the dynamics of market development. These factors – and the accompanying increase in the chances for improved environmental protection on a global scale – suggest that solar technologies can be a central factor in a new, more natural industrial and agricultural product cycle. Expanding the production of solar energy technologies would: reduce dependence on expensive fossil fuels; serve to protect nature and its resources; improve general levels of health, and reduce the potential dangers inherent in other technologies. As energy is a basic need of the entire human population, a new orientation as described here would help expand the jobs

market within the framework of a new, ecologically responsible industrialisation policy.

4. Economic opposition to the expansion of new technologies for exploiting Renewable Energy is dubious, especially as it applies to developing and threshold nations. The fact that decisions concerning energy policy and energy economics are often based on too-narrow and rather biased information cannot be overlooked. The factors generally considered include the costs of exploiting, converting and transporting energy via the infrastructure currently existing in industrialised nations. A broader view must include economic, agricultural and transportation factors; urban and town planning and population policy; development policy; trade policies and broader environmental-political goals and considerations.

5. It is imperative that every nation in the international community:

- create research and development facilities;
- begin using a wide range of solar energy technologies, in order to keep pace with new technological developments;
- promote the education of scientists and technicians and increase public awareness as the basis for increasing self-sufficient production and use of Renewable Energy and energy efficiency methods;
- move quickly to introduce Renewable Energy technologies.

Bridging development gaps and reducing deficits in the availability of information is a crucial global, environmental, economic and political issue. The effort to preserve the natural foundations for life on earth through an increased reliance on Renewable Energy sources is a race against time and against continued environmental destruction, whose pace has sped up rather than slowed down. Immediate co-operation on an international level is the only way to insure widespread access to technologies for the use of Renewable Energy. IRENA will serve to insure and promote such co-operation.

6. The existence of the International Atomic Energy Agency (IAEA) also demonstrates the necessity for an organisation such as IRENA. The Vienna-based IAEA is affiliated with the United Nations and employs over 2,200 people with an annual budget of approximately 250 million dollars. There are currently 130 member nations. Besides being responsible for nuclear safety, monitoring the distribution of fuels and promoting the further development of nuclear science, the IAEA, which was founded in 1958, serves to help eliminate technological barriers to the introduction of nuclear energy. About one-third of its annual budget is set aside for this purpose. As dictated in Article 4 of the Nuclear Non-Proliferation Treaty (NPT) of 1970, the IAEA is to support its member nations in the non-commercial transfer of technology. The

IAEA uses the financial means available through its "Technical Co-operation Fund" to conduct exchange projects, to organise training programmes and courses, to advise in the planning and implementation of nuclear energy facilities, to maintain information systems related to nuclear power plants and state-of-the-art technology, and to support isotope research.

The majority of the members are developing countries. Twenty-five of them are located in Africa alone. Thus, many of the nations belonging to the IAEA neither currently have nor plan to build their own nuclear power plants. It should also be pointed out that the events of the past three decades have led to wide-spread scepticism about the actual potential of nuclear energy. Even industrialised nations such as Germany, Italy, Sweden and Austria have either banned the use of nuclear power or set dates for its future elimination. Because of the high costs of meeting stricter demands for nuclear safety, the construction of nuclear power plants has become much more expensive, which has had a chilling effect on their economic attractiveness. The lack of an appropriate energy-supply infrastructure in developing countries is a further obstacle to the introduction of nuclear energy. To date, the problems of nuclear waste management have not been solved sufficiently. Although many of the hopes attached to nuclear energy at the time of the founding of the IAEA have meanwhile been dashed, the IAEA has failed to adjust its aims. During the 1990s, in fact, the organisation even managed to expand its membership.

We needn't say more here about the current state of nuclear energy or the IAEA. The role the IAEA plays in ensuring nuclear safety and in monitoring the distribution of fuel is of the utmost importance. But its work in the field of technical co-operation and the motives behind it set a precedent that clearly demonstrates the need for an International Renewable Energy Agency. In as much as it was once necessary to create an IAEA, it is today equally necessary to create an IRENA in the form of an independent agency operating in conjunction with the United Nations. The IRENA will not have to concern itself with issues of "solar safety", because safety is not an issue in the case of Renewable Energy. Instead, its task will be paving the way for an effective, international transfer of technology for a global mobilisation of Renewable Energy to meet the world's energy demand – a transfer of technology occurring independently of competing economic interests. Considering IRENA's transfer of technology for Renewable Energy to be at least as important as the transfer of technology within the framework of the IAEA would suggest a minimum annual budget of approximately 80 million dollars.

7. When new global challenges like increasing the use of Renewable Energy are faced, new institutions are necessary to assume responsibility. It would be inadvisable to assign the tasks which an IRENA could be responsible for to already-

existing sub-organisations and international agencies. While it is necessary for IRENA to co-operate with such existing bodies in the carrying out of its tasks, it is also clear that only a specialised agency like IRENA could satisfy the demands required for systematic co-ordination of expertise in the transfer of technologies for Renewable Energy. It would pave the way for increased international co-operation and help other UN organisations integrate solar energy in their respective programmes more effectively.

An International Renewable Energy Agency: the discussion to date

The increased use of Renewable Energy has been advocated repeatedly by the **United Nations** and other international bodies since the beginning of the 1980s.

In 1980, the **North-South Commission**, in its report "North-South: A Programme for Survival," had this to say: "long-term solutions can be found in the development of alternative and renewable energy sources; the short-term challenges are enormous. These facts indicate the need for a world-wide energy strategy." The report concluded that humankind must "turn to inexhaustible sources of energy, such as solar energy (in its broadest sense), to the use of biomass, wind and the tides." The North-South report suggests the creation of an international institute for the transfer of technology. In 1981, the **United Nations** held the "**Conference on New and Renewable Sources of Energy**" in Nairobi. This conference was to pursue the goals set forth in UN Resolution 33/148 (from December 20, 1978): "to develop policies for concerted action in promoting the development and use of new and renewable sources of energy, in order to help meet future energy demands, in particular those of developing nations." The conference ratified the "Nairobi Programme of Action for the Development and Utilisation of New and Renewable Sources of Energy."

The recommendations therein concerned themselves with:

- research, development and demonstration,
- the transfer, adaptation and application of tried and tested technologies,
- Education, training and communication of information.

The report made special mention of the largely unexplored potential of hydro-electric power, certain solar energy technologies, small-scale wind energy generation and biogas. The developing countries in attendance at the Nairobi Conference moved for the creation of an International Renewable Energy Agency. The idea was, however, rejected by the industrialised nations.

In 1990, **EUROSOLAR** published a memorandum proposing the creation of an "International Solar Energy Agency". The memorandum was presented to the UN in

New York and at several international conferences including those in New Delhi, Cairo, and Harare, as well as at the preparatory conference for **UNESCO's "Solar World Summit"** in Paris (1993).

The same suggestion was included in the recommendations made in 1990-91 by the **United Nations Solar Energy Group on Environment and Development (UNSEGED)**. This commission, chaired by Prof. Thomas Johansson (Sweden) representing UN General Secretary Perez de Cuellar, developed suggestions for a solar energy strategy in advance of the UN's World Conference on Environment and Development in Rio de Janeiro in 1992. The UNSEGED's published suggestions stated:

"Another option is to establish a new intergovernmental body, with secretariat support being provided by a new institutional body. This may take the form of an open-ended intergovernmental committee with a new and enlarged mandate with regard to renewable energy sources, within the purview of the United Nations or be established as an independent body with a United Nations mandate.

Accordingly, the new-institutional body may be either a new United Nations agency or an independent international agency.

The experience in the decade after Nairobi Programme of Action indicates that more restricted changes, such as those discussed above, are not likely to be sufficient to create the dynamics needed for the present, new situation. A department in an existing organization would be possible, if there were a suitable host. This is not the case, because already existing institutions have clear mandates that are not easily adapted to the new tasks to be performed. In addition, the existing structures within present organisations are not conducive to carrying out new tasks with the vigour that is now needed.

A new institutional structure for renewable energy sources may be considered as part of a larger institutional framework for the broader task of supporting, in an integrated manner, the transition to environmentally safe and sound energy systems compatible with sustainable development. Such energy systems must increasingly be based on the use of renewable energy sources and on improved energy efficiency in energy end-use and supply. Such broader solutions must be considered, *inter alia*, in connection with a convention on climate change.

It is recommended that a new agency should be established. Its role will be to promote renewable energy sources, not only with respect to energy and environment policies, but also agricultural, transport, industry and research policies, and policies regarding housing and regional development. The creation of an international renewable energy agency, with sufficient political and financial support from governments to carry out its tasks, would be a strong signal that an increased role of Renewable Energy sources is required to deal with problems of environment, development and security.

The establishment of an international renewable energy agency does not imply that all activities by existing bodies should be integrated in the new agency. In most instances, it would be efficient to continue the renewable energy work performed by existing bodies, but with more pronounced focus and co-ordination."

Although UNSEGED included representatives of 30 governments and its recommendations were supported by the UN Secretary General, it was not accepted by the Rio Conference's Preparatory Committee. Representatives of the Japanese and American governments were opposed. This development showed that the creation of such an agency is a practical impossibility if made contingent upon the consensus of a global governmental conference.

The recommendations published by the **Interparliamentary Conference on Global Environment**, held in the United States senate in 1991 under then-senator Al Gore, also suggested creating an International Solar Energy Agency.

A resolution made by the **General Assembly of the United Nations** in November, 1990 concluded:

"In pointing out that current tendencies in the energy sector emphasise the importance of continued development of new and renewable sources of energy, the assembly wishes to

- once again express its concern about the slow pace of efforts to put into practice the strategic programme for the development and use of renewable energy, and that efforts have been insufficient in meeting the urgent needs of developing nations. In this context, we wish to stress the need for continuing commitment and action on the part of the international community on a national, regional and global scale,
- ask its member nations to consider furthering their respective efforts to strengthen activities in the field of new and renewable energy, including the foundation of an international institution."

After the proposal was rejected by the Rio Conference, the governments supporting the idea pinned their hopes on world climate conferences. These conferences have, however (since the long overdue compromise in Kyoto in 1997), made "Clean Development Mechanisms" in the form of "Joint Implementation" and "Emissions Levels" regulations their focus, thus placing the emphasis on a more efficient use of conventional energy. This course of action is debatable. With the exception of increased efforts by the World Bank and the UNDP to support the growth of Renewable Energy, yet another decade has been wasted.

Therefore it is time to renew efforts to realise the foundation of IRENA.

Speaking out for an International Solar Energy Agency

Willy Brandt, addressing the Conference on Co-operation between Europe and India for the Development and Application of Solar Energy, May 28, 1990, New Delhi:

"In 1980, in our report 'A Programme for Survival,' we recommended an international energy strategy as one of four immediate priorities. We spoke out in favour of regulating the supply of oil, of policies to increase energy efficiency and of developing the use of renewable forms of energy. At that time, little technology was available to help exploit renewable energy, one exception being water power. Nevertheless, we were fascinated by the possibilities of using natural energy sources – which are inexhaustible, do not produce harmful emissions, and are available to everyone. [...] Unfortunately, the reaction to our suggestions was lukewarm. [...]

In the light of the increasing demands of an exploding world population, more investment in renewable energy is urgently needed. Only through renewable energy will we be able to develop economies in harmony with our natural environment. Since these forms of energy allow for decentralised use, they are ideally suited to third world countries, in which most rural regions are not connected to the sources of electricity. Our concerted efforts must provide suitable policies to help close the technological gap between north and south in the field of renewable energy as rapidly as possible. Financial and technical assistance should be made available, in order to allow developing countries to employ renewable energy and to manufacture the technologies necessary to do so themselves.

For these reasons, I support the creation of an International Solar Energy Agency in the near future, as already suggested by EUROSOLAR. It is up to you to serve the global community, which cannot afford to wait another ten years for international action."

Willy Brandt (address as President of the International Socialists to the Economics Committee of the United Nations, October 8, 1990):

"As you know, during the 1980s, the economic situation in far too many developing nations worsened. The threat to our environment increased to such a dramatic degree that human civilisation is now seriously endangered. One main cause is our energy consumption, which has increased both in its scope and in its potential dangers: Chernobyl demonstrated the risks of nuclear energy, and warnings of a looming climatic catastrophe show us the dangers of burning fossil fuels. Considering that we are now confronted with another oil crisis, renewable energy provide us with a chance to preserve our environment, conserve natural resources and insure

responsible economic growth in every corner of the globe. The technical possibilities available today which allow us to exploit natural sources of energy are impressive, but political and financial support for research and development in the field of solar energy technology is still insufficient. [...] In addition to the national efforts undertaken by some governments and to the activities of organisations affiliated with the UN, we need an international institution responsible for the transfer of technology in the field of renewable energy. Such an International Solar Energy Agency has already been recommended by EUROSOLAR, an international solar energy organisation.

In the 1950s, when atomic energy was considered to be a potentially safe and emission-free source of energy, the International Atomic Energy Agency (IAEA) was founded. The agency was responsible for nuclear safety and the transfer of technology. What was true of nuclear energy then is even more important for solar energy today. Therefore, I am convinced that the recommendation made by EUROSOLAR should be considered by the Economics Committee of the United Nations."

Austrian Foreign Minister Alois Mock (ÖVP) in his address to the UN General Assembly, November 1991:

"Many non-governmental organisations such as EUROSOLAR recommend addressing the problems in development and more efficient use of renewable energy on an institutional level within the framework of the United Nations.

The development and promotion of these new technologies has not received the necessary attention. In several countries, funding for research and development has been the victim of budget cuts. This is regrettable, and evidence of the lack of long-term planning.

I suggest that we finally heed the warnings made by science. It would force us to look for ways to allow governments to reconsider their respective energy policies in a spirit of co-operation and, above all, with regard for the serious threats to our environment."

Austrian Environmental Minister Fleming (ÖVP) in her address to the General Assembly of the IAEA in Vienna, September 9, 1990:

"What we need now is an International Renewable Energy Agency."

Austrian Chancellor Franz Vranitzky (SPÖ) in a speech at the Karl Renner Institute in Vienna, May 20, 1992:

“Aside from introducing an Energy/CO₂-Tax, at least in the rich industrialised countries, another way of reorienting our global energy systems in a more ecologically responsible direction based upon the use of renewable forms of energy would be the creation of an International Solar Energy Agency (ISEA).

In this context, it is important to understand the term solar energy as including not only the direct and indirect use of solar radiation, but also wind power, water power and biomass as indirect and/or "stored" forms of solar energy whose use should also be promoted and expanded. Denmark would seem to be a valuable partner in the areas of wind power and biomass, and I would like to take this opportunity to invite Denmark to continue our concerted effort for the creation of an ISEA already begun within the framework of the United Nations. Should the idea lack sufficient support within the United Nations, we should not rule out the formation of a multilateral organisation similar to the OECD, which would of course be open to all interested states."

SESI (Solar Energy Society of India):

“The Solar Energy Society of India supports the EUROSOLAR's to create an International Solar Energy Agency. The ISEA could play an immediate and substantial role in the transfer of solar technologies to the third world."