

## **Background information on the**

### **Initiative for the Establishment of an International Renewable Energy Agency (IRENA)**

#### **What is IRENA?**

Energy security, environmental protection and poverty reduction are global challenges that can only be overcome by joint international efforts. Renewable energies play a key role in this context. Making greater use of them is crucial in view of climate change and limited conventional resources.

Until now, there was no international organisation whose specific aim was to support and provide concrete advice to industrialised and developing countries on the expansion of renewable energies and help them establish better regulatory frameworks through capacity building measures. In order to remedy this deficit, an International Renewable Energy Agency (IRENA) is to be established, complementing the work of the numerous organisations and initiatives in the area of renewable energies. IRENA will promote and accelerate the worldwide expansion of all sustainable regenerative energy sources.

The German government has therefore been actively promoting the establishment of IRENA since 2007. The goal is now within reach: numerous countries are supporting the initiative. 170 delegates from 60 countries attended the Preparatory Conference that took place at the Federal Foreign Office in Berlin in April 2008. On the 26<sup>th</sup> and 27<sup>th</sup> of January 2009, the German government is planning to invite all interested countries to Bonn for the IRENA Founding Conference.

#### **Specific Tasks**

One of the international governmental organisation IRENA's principal tasks will be to offer concrete advice to its members about promoting the use of renewable energies. Although more than 60 countries around the globe have set themselves ambitious targets to increase the share of renewable energies in their national energy consumption, only a few of them have achieved these targets so far. Experience has shown that most countries need specific advice on the practical implementation of their energy targets. There are many organisations and networks, including the IEA, UNDP, UNEP, UNIDO, REN21 and REEEP, working at the local, national and international levels to expand the use of renewable energies. There is,

however, no international organisation that offers industrialised and developing countries alike support with regard to developing renewable energies. This is where IRENA comes in: the agency will give its members concrete advice on developing and expanding political frameworks for promoting renewable energies, whilst seeking to work closely with existing organisations and initiatives.

By coordinating existing measures, IRENA will enhance synergy effects and help to avoid any duplication of efforts. One of IRENA's key advantages will be its global orientation and membership base. IRENA's aim is to provide access to the knowledge and wealth of experience about successful policies and practical applications as well as detailed know-how regarding state-of-the-art technologies in the field of renewable energies.

Its primary goal is to work towards broad-based, sustainable use of renewable energies throughout the world in the near future.

This integrated approach is reflected in various specific targets. These include:

- Improving the political environment for renewable energies through targeted political advice;
- Expanding technology transfer in the area of renewables;
- Supporting capacity building measures for renewable energies.

The agency will advise its member states using an integrated, practice-oriented approach that takes the three aforementioned specific aspects and the individual situation in each country into account. IRENA will provide political advice but will not strive to elaborate international regulations or agreements single-handedly. Instead, all its services will be provided only in response to requests from individual member states or groups of member states. IRENA will not intervene in other countries' energy policies of its own accord, nor make any attempts to enforce certain political concepts. All its activities will be decided upon by the member states.

IRENA will not make any technologies available to its members. Rather, the agency will offer its member states practical support in identifying appropriate mechanisms for financing and implementing technology transfer measures and for the long-term maintenance and servicing of technology applications. Expert workshops will make an important contribution to this end. Moreover, IRENA will facilitate the transfer of technologies and knowledge from public and private research and development projects by establishing databases containing best practices and setting up a flexible system of exchange between the member states.

As regards capacity building, IRENA will act as a facilitator and a catalyst, promoting various programmes and helping national governments and the private sector with advice and recommendations. All capacity building measures are to be carried out jointly with local

institutions in the respective recipient countries. In order to identify needs and requirements, it will be necessary to take stock of current activities by national and international donor organisations. This will allow for improved coordination of activities and place a focus on those areas and methods in which or through which the best results can be achieved. In the area of capacity building, IRENA will also focus on the training of multipliers.

Further concrete goals to be pursued by IRENA are:

- Advising member states on financing options;
- Making available professionally prepared information and material to support the member states in their public relations activities;
- Developing a scientifically backed information pool based on applied policy research.

IRENA will focus its activities on promoting all forms of renewable energies. These include:

- Bio-energy
- Geothermal energy
- Ocean energy (e.g. tidal power and marine current power)
- Solar power
- Hydropower
- Wind energy
- Other forms of renewable energy (e.g. osmosis energy)

In order for projects to be eligible for IRENA promotion, their energy production methods must fulfil certain sustainability criteria.

### **Structure and finance**

The aim is to build a broad-based membership structure. Large and small countries, industrialised and developing countries alike are to be represented in this initiative. IRENA is to be an international governmental organisation working closely with existing networks and organisations. All UN member states are invited to join IRENA.

Its articles of association and work programme are to be designed in such a way as to make IRENA an efficient and effective agency that can become operational as soon as possible. The organisation is to consist of an Assembly, a Council and a Secretariat.

IRENA's budget is to be covered mostly by membership contributions. The amount of mandatory contributions will be calculated using a key that will be based as far as possible on the principle of individual members' capacity to pay.

Several countries have already expressed an interest in hosting the IRENA Secretariat. The decision about where to locate it will be taken on the basis of an open and transparent application and selection process.

### **From the idea to the Founding Conference**

The establishment of an International Renewable Energy Agency was first suggested in 1981 at a United Nations conference in Nairobi. In 2001, EUROSOLAR hosted an international conference in Berlin to garner ideas for an International Renewable Energy Agency. At the International Conference for Renewable Energies that took place in Bonn in 2004, the question of establishing a separate organisation for renewables was discussed, and it was also a topic of discussion at the WIREC 2008 in Washington, during which the German side introduced some concrete ideas for IRENA.

In Germany's 2005 coalition agreement, the governing parties decided to push ahead with the establishment of IRENA at the international level. In June 2008, this decision was reaffirmed in a resolution adopted by the German Bundestag.

In the second half of 2007, three ambassadors at large from the German Foreign Office and the Member of Parliament Hermann Scheer approached the governments of more than 25 potentially interested countries in North America, Latin America, Africa, Asia and Europe to promote the idea.

Following an initiative by the German government, a Preparatory Conference for the founding of IRENA took place at the Federal Foreign Office in Berlin on the 10<sup>th</sup> and 11<sup>th</sup> of April 2008. With more than 170 delegates from 60 countries, the conference was a huge success. The aim of the conference was to discuss IRENA's goals and key tasks and its organisational and financial structure.

The preparation process then entered the final phase: from the 30<sup>th</sup> of June to the 1<sup>st</sup> of July 2008, the German government hosted a workshop in Berlin. 100 delegates from more than 40 countries divided into two parallel working groups discussed the agency's preliminary work programme and its statutes and financing. It was agreed that IRENA's statutes should be finalised in a Final Preparatory Conference. This conference will take place on the 23<sup>rd</sup> and 24<sup>th</sup> of October 2008, in Madrid. The official signing of the statutes and thus the establishment of IRENA is scheduled to take place from the 26<sup>th</sup> to the 27<sup>th</sup> of January 2009, in Bonn.

Further information on the initiative to establish IRENA can be found on the official website at [www.irena.org](http://www.irena.org).

### **Untapped potential – some facts about renewable energies**

Ensuring the world's energy supply is becoming increasingly problematic. It is more and more difficult and costly to meet the growing demand for energy with fossil fuels and nuclear power. Oil prices almost doubled last year and in 2008 they hit the 100-dollar mark (price per barrel) for the first time. At the beginning of July 2008, oil prices reached a record high of almost 150 dollars per barrel. The rise in the price of oil is not only pushing up the price of gas, which is tied to it, it is also causing production prices for food to shoot up. The unsustainable use of bio-energy, particularly agrofuels, is causing competition for agricultural land, which also contributes to higher food costs. If countries around the world do not change their existing policies and if the world population continues to grow, energy demand may increase by 50 percent or more by 2030.

The forecasts of the 4<sup>th</sup> Assessment Report of the IPCC are equally ominous. They predict that temperatures will rise by between 1.8°C and 4° C by the end of the 21<sup>st</sup> century. Unless measures are taken to mitigate global warming, climate-induced economic losses could amount to as much as 20 percent of global gross domestic product according to estimates in the Stern Report.

More than 1.6 billion people do not have access to electricity, and more than 2.5 billion have to rely on firewood and dung as their sole sources of energy. Building network infrastructures in order to connect them to electricity supply networks is often prohibitively expensive. The inefficient, unsustainable use of biomass is a cause of serious health concerns and environmental damage.

In the light of all this, renewable energies offer an enormous potential. The amount of renewable energy that could be generated by means of modern technologies is enough to meet the current global demand for energy several times over. Lessons learned and likely price reductions due to economies of scale will mean that a far larger proportion of its potential can be tapped efficiently and cost-effectively in the future.

The benefits of renewables are indisputable:

- Thanks to the enormous energy potential of the wind, sun and other sources of renewable energy, even a significant increase in demand could be met.
- As technology costs decline, renewable energies can contribute to stable energy prices in the future.
- The use of renewables reduces greenhouse gas and air pollutant emissions.

- With renewable energies, even the poorest in the world can gain access to energy. No cost-intensive energy grids are needed, and renewables can meet the energy needs of the global population through off-grid power supply.

In 2006, renewable energies already accounted for 18 percent of global final energy consumption. Power generation from renewables doubled between 2004 and 2007 to 240 gigawatts of installed capacity. In fact, if the big hydropower plants are included the figure is more than 1,000 gigawatts. In 2007, installed wind energy capacity rose by 40 percent compared with 2006 and it will soon break the 100 gigawatts barrier. Germany plays a leading role in this field, followed by Spain, the United States, India, Denmark and China. Most recently, the amount of photovoltaic energy fed into the power grid grew by 50 percent in 2006 and 2007, the strongest growth rate of all renewable energy sources in Germany.

On closer inspection however, the picture is not quite as rosy. The share of solar, wind and tidal power in worldwide primary energy supply is still marginal, although it is increasing at a steady rate. Set against absolute increases in the use of fossil-based primary energies, the share of renewable energies was disproportionately small in 2006. The continued growth in primary energy consumption cancels out the growth of renewables. Moreover, there are still some obstacles in the way of the goal of considerably increasing global energy supply by means of renewables. Among these obstacles are the lack of public awareness, market distortions in favour of traditional energy sources and structures, ineffective political frameworks, insufficient technical or administrative know-how and a considerable lack of proper information.

This means that the enormous potential of renewables is currently not being tapped to the full extent. IRENA will contribute towards closing the gap between the huge potential of renewables and their relatively low market share as quickly as possible.