

The Sun – energy for the 21st century

The FVS • ForschungsVerbund Sonnenergie (Renewable Energy Research Association) is working for a sustainable energy supply designed to meet the requirements of modern society. Renewable energy sources provide an essential starting point; after all, the sun, wind, water and geothermal heat are inexhaustible measured on a human scale and can be harvested with efficient, innovative technologies. At the same time, energy efficiency needs to be stepped up so that overall consumption can be reduced.

Sustainable energy supply

The Renewable Energy Research Association's strategic aim is for renewables to become a central pillar of sustainable energy supply, targeting:

- **Ecological viability**

In setting their energy and environmental objectives, the German government and the EU are guided by the international target of an 80% cut in carbon dioxide emissions (based on 1990 levels) in industrialised countries by the middle of the century.

Renewables can make a significant contribution to this end and help to reduce manmade climate change.

- **Reliable resources**

The foreseeable resource depletion of fossil energy sources means that renewables will soon be needed as substitutes for coal, oil and gas. Geostrategic developments are also a compelling reason for the speedy and vigorous expansion of renewables.

- **Social justice**

Renewables are a clean and safe source of energy that is available to everyone and will become increasingly affordable in the future. In developing and emergent countries in particular, the use of renewable energy sources can be combined with the creation of regional

jobs and the raising of living standards through local wealth creation and distributed economic structures. Renewables offer a wide range of possibilities for overcoming economic underdevelopment in many parts of the world, as they are freely available, infinite sources of energy.

- **Economic effectiveness**

At their full cost-cutting potential, renewables guarantee an economic energy supply at a stable price. Utilisation of renewable sources is increasingly driven by the prospect of positive economic effects. Production of technical components and systems for utilising renewable energy sources will become an essential element of global economic activity.

Priority for renewables

The long-term goal of the German government is to get some 50 percent of its energy supply from renewables by 2050. The European Union recommends that its member states get some 20% of their electricity from renewable sources by 2010. This is to be achieved by introducing strategic economic policy measures and by commitment to market introduction programmes. The basic condition for the accelerated development of renewable energy technologies, however, is still efficient research and technology development. Such a process will extend over decades, mainly driven by the feedback from market application experience to further R&D.