



Recent Energy Technology Developments in Germany

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Energy Policy

In October 2002, The Federal Ministry of Economics and Technology (BMWi) published a new Energy Report, entitled "Sustainable Energy Policy to Meet the Needs of the Future". It outlines the new orientation for the German government's energy policy in the 1998 to 2002 period and describes the decisions already taken by the federal government to assure a sustainable supply and use of energy. It further explains how long-term trends for energy supply and use might develop, depending on the climate policy targets that are set. The basis for the Report are two scenarios, each relying on the reference year 2020 and both assume a phasing out of nuclear energy use.

The Energy Report presents the facts that serve as an important foundation for discussing what a sustainability-oriented energy policy might look like in the long term. In line with the trend on the domestic energy market, the Report focuses on the individual energy markets (electricity, heat, process energy, transport), not on the individual energy sources. Its purpose is to illustrate how the same priority can be assigned in accomplishing the three goals of energy policy, which are "supply security", "economic efficiency" and "environmental compatibility".

The Report provides answers to the following questions:

1. How do the German energy markets compare on a European scale?
2. What new points of orientation have been set?
3. What new points of orientation have been set?
4. How will nuclear energy be replaced?
5. What might energy supplies look like in the year 2020 absent the use of nuclear energy?
6. What conclusions are being drawn for future energy policy?

The Report, edited in German, and an English summary can be downloaded from the BMWi's Homepage <http://www.bmwi.de>. It is also available by BMWi's public office.

Energy Research & Development

Almost 80 new R&D projects on environmentally benign energy technologies have been started in addition to those carried out within the framework of the 4th Energy Research Programme's regular activities since 2001. They are being supported by the BMWi from the 'Investing-In-The-Future Programme' (Zukunfts-Investitions-Programm - ZIP) of the Federal Government introduced at the end of 2000. Altogether about 123 mill. € have been made available for new projects. They considerably increase the long-term funds for energy research provided by BMWi and will help to accelerate the market introduction of new technologies. These funds are supplemented by the contributions which have to be provided by the companies themselves so that the total volume of funding for the research and development projects is more than 230 mill. €.

At the end of 2001 BMWi signed the last contracts for projects to be carried out within the framework of ZIP in the area of energy research over the next three years.

The priorities are:

● Fuel cells for stationary and mobile applications	44 projects
● New drive technologies and fuels from regenerative sources	11 projects
● Geothermal energy	8 projects
● Offshore wind energy	3 research platforms for offshore wind parks
● Renovation of existing buildings with regard to energy aspects	13 projects

The Project Management Organisation in Jülich (PTJ) will report about further details and progress (<http://www.ptj-jahresbericht.de>).

The Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) has also allocated 10 mill. € from ZIP-finances. Within the framework of its task to implement the government's Climate Protection Programmes, BMU supports research particularly into renewable sources of energy.

German Energy Agency

On September 29, 2000, the German Energy Agency (*Deutsche Energie-Agentur = dena*) was established as a national center of expertise and information in the field of energy efficiency and renewable energies. The origins go back to a decision taken by the federal cabinet in July 2000, which spoke of the establishment of a federal energy agency; the decision had been taken in connection with preparations for the federal government's climate protection program. *dena* is not a subordinate agency of one of the ministries but was set up as a GmbH. The stakeholders are presently the KfW (50%) and the Federal Republic of Germany (50%) represented by the Federal Ministry of Economics and Technology. The supervisory board recently decided to include the Federal Ministry of Transport, Building, and Housing and the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety in operations.

On the basis of flexible projects, *dena* seeks to support specific activities undertaken by the federal government in the field of the rational use of energy, regenerative energy sources, and climate protection. *dena* is to be an information provider along with local and regional energy agencies, and with consumer centers. The goal is also to enable those seeking information in private households, companies, associations, and government to receive the information they need in a better and smoother manner. Another important task of the Agency is to exchange experience and conduct joint projects with foreign partners at the international level and advise the federal government on such activities.

Already after a brief start-up period, the Agency has launched several broadly structured projects. In April 2001, it began operation of a call center on matters of rational energy use and renewable energy sources; the call center may be reached by dialing a no-charge number that is uniform throughout the Federal Republic. It is conducting a campaign on "efficient compressed air systems for industry and trade" in cooperation with a research institute and industrial partners and, together with the national chambers of architects and engineers and the state energy agencies, is the organizer of a successful series of talks on the new Energy Conservation Ordinance as applied in buildings. Among other plans, the Agency will be conducting a nationwide campaign to lower stand-by losses incurred with electrical and electronic appliances.