

Title: <b>Research &amp; Innovation Questionnaire</b>						Doc. ID:	
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<i>CIDAE</i>	<i>WP7</i>		<i>1</i>	<i>June 2004</i>	<i>Final</i>		1 of 6

- **QUESTIONNAIRE** on the research/innovation programme of European Union
- **Second stage (2006):** Member States, Associated Candidate Countries and FP Associated States.
- **Objective:** Identification of complementarities and barriers for collaboration
- **Member State**

<b>Member State</b>
<b>Germany</b>

- **Generalities about the General Framework Programme / Agency responsible for initiating, steering and financing Multiproject programmes<sup>1</sup>:**

<b>Complete name</b>
<b>"Innovation and New Energy Technologies - The 5<sup>th</sup> Energy Research Programme"</b>
<b>Short name</b>
<b>5<sup>th</sup> Energy Research Programme</b>
<b>Web page address – in national language</b>
<a href="http://www.bmwi.de/BMWi/Navigation/energie,did=65138.html">http://www.bmwi.de/BMWi/Navigation/energie,did=65138.html</a>
<b>Web page address – in English</b>
<a href="http://www.bmwi.de/English/Navigation/Service/publications,did=74976.html">http://www.bmwi.de/English/Navigation/Service/publications,did=74976.html</a>
<b>Duration of the Programme</b>
2005...2008
<b>Global objective of the programme</b>
<p>The Federal Government has adapted its support for research and development in the energy sector to the new political framework data and priorities. Major priorities for future funding will be found in the fields of "energy efficiency" and "renewable energies". Energy research policy thus also pursues the strategy developed by the Federal Government for sustainable development and makes an important contribution to the protection of the Earth's atmosphere.</p> <p>In funding research and development for modern energy technologies the Federal Government is pursuing three goals:</p> <p>1. This funding will make a definitive contribution to fulfilling targets in energy and climate policy. In this way, priority will be given to technologies that help to accelerate the transition to a sustainable energy supply. Attention is centred above all on modern and innovative technologies which are capable of ensuring the</p>

<sup>1</sup> In case there is not a General Framework Programme but an Agency responsible for initiating, steering and financing Multiproject programmes

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availability of the energy supply in Germany, improving energy efficiency and increasing the proportion of renewable energies in covering primary energy demand.

2. This funding will improve the responsiveness and flexibility of Germany's energy supply by maintaining and expanding the technological options. This will give industry and consumers the chance to adapt to new developments and changes in the general conditions of the energy economy. Energy research policy thus makes an important contribution to risk precautions for the entire economy.

3. This funding is an integral part of the Federal Government's overall policy. It also serves to pursue other political goals, especially the goals of the growth and employment policy, the environmental and climate protection policy, and the research policy.

### Structure / Organisation / Core activities (priority areas etc.)

Funding for research and development in the energy sector concentrates in particular on the following fields:

- modern power plant technologies on the basis of coal and gas (including CO<sub>2</sub> capture and storage),
- photovoltaic and offshore wind energy,
- fuel cells and hydrogen as secondary energy carrier and energy storage systems,
- technologies and processes for energy-optimized construction, and
- technologies for using biomass for energy purposes.

In addition, the Federal Government's funding policy also comprises the fields of energy-saving technologies in industry, trade, commerce and services, other fields of renewable energy technologies such as solar heating, geothermal power and hydropower, nuclear safety and repository research, the development of nuclear fusion as a source of energy as well as systems analysis and dissemination of information.

### ▪ Sections / Programmes related to Distributed Generation, DER and Renewable Energy

#### Name of the area

The 5th Energy Research Programme **originated** under the **leadership** of the Federal Ministry of Economics and Technology (**BMWi**) sets up a framework for different research activities in the field of energy technologies.

Topics as Distributed Generation, DER or Renewable Energies are addressed within several activity areas of the 5<sup>th</sup> Energy Research Programme.

#### Web page address – in national language

<http://www.bmwi.de/BMWi/Navigation/Energie/energieforschung.html>

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### Web page address – in English

n. a.

### Objectives of the section

#### Energy efficiency:

The Federal Government aims to double the energy productivity of the German national economy by 2020 in comparison to 1990. This ambitious goal corresponds to an average reduction of specific primary energy consumption by 2.3 % per year.

#### Renewable energies:

In its strategy for sustainable development, the Federal Government has set itself the goal of raising the proportion of renewable energies in primary energy consumption to 4.2 % by 2010. By 2050, the Federal Government aims for a further expansion of renewable energies of up to 50 %.

### Research Priorities

Within the 5<sup>th</sup> Energy Research Programme most relevant topics are:

#### - e.g. Energy Efficiency, ...

- Power plant technology based on coal and gas (e.g. on decentralized CHP generation)
- Fuel cells
- Storage technologies and hydrogen
- Energy efficiency in industry, trade, commerce and
- Systems analysis and dissemination of information

#### - e.g. Renewable Energy Sources

- Photovoltaic (e.g. decentralized feed systems on the low-voltage level and system technology for decentralized network structures)
- Wind energy (e.g. decentralized energy concepts in developing countries)
- High-temperature solar thermal power
- Low-temperature solar thermal
- Geothermal energy
- Hydropower and utilization of ocean energy
- Bioenergy (Biogas, Biofuels, Synfuels/BTL)

### Budget

Within the 5<sup>th</sup> Energy Research Programme the Federal Government of Germany has indicated a budget of about 1.7 billion € in total for the period from 2005 to 2008.

There are no fixed budgets for special topics as DER, Renewable Energies or Distributed Generation.

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▪ **Administrative and financial issues**

<b>Institution responsible for the Programme</b>	
For the framework in general: Federal Ministry of Economics and Technology (BMWi), For each section /sub programme Federal Ministry relevant to its individual departmental responsibility (mentioned in the programme).	
<b>Web page address – in national language</b>	
<a href="http://www.bmwi.de/BMWi/Navigation/Energie/energieforschung.html">http://www.bmwi.de/BMWi/Navigation/Energie/energieforschung.html</a>	
<b>Web page address – in English</b>	
n. a.	
<b>Institution responsible for the Management of the Programme</b>	
- Energy efficiency, DER, Renewables:	PtJ – Projektträger Jülich, 52425 Jülich
- High-temperature solar thermal power:	VDI/VDE Innovation und Technik GmbH, 14513 Teltow
- Bioenergy:	FNR – Fachagentur Nachwachsende Rohstoffe e.V. , 18276 Gülzow
<b>Contact Person</b>	
- PtJ:	Dr. Hans-Joachim Neef, h.j.neef@fz-juelich.de, Dr. Sabine Semke, s.semke@fz-juelich.de, Dr. Frank Stubenrauch (Renewables), f.stubenrauch@fz-juelich.de
- VDI/VDE-IT:	Ludger Lorych, lorych@vdivde-it.de
- FNR:	Dr. Andreas Schütte, a.schuette@fnr.de
<b>Web page address – in national language</b>	
- PtJ:	<a href="http://www.fz-juelich.de/ptj/">http://www.fz-juelich.de/ptj/</a>
- VDI/VDE-IT:	<a href="http://www.solar-thermie.org/">http://www.solar-thermie.org/</a>
- FNR:	<a href="http://www.fnr-server.de/cms35/index.php?id=20">http://www.fnr-server.de/cms35/index.php?id=20</a>
<b>Web page address – in English</b>	
- PtJ:	<a href="http://www.fz-juelich.de/ptj/index.php?index=1018">http://www.fz-juelich.de/ptj/index.php?index=1018</a>
- VDI/VDE-IT:	n. a.
- FNR:	<a href="http://www.fnr-server.de/cms35/index.php?id=139">http://www.fnr-server.de/cms35/index.php?id=139</a>

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### Cost models and type of participants

Project funding is addressed to companies, research institutes and universities. It is granted in the form of subsidies for research projects that cannot be realized on the market or for projects that intend to demonstrate the first practical application of new or improved energy technologies.

Funding will be provided in the form of grants. The legal basis is the Federal Budget Regulations (BHO) together with the provisional administrative agreements (Vorl. VV), which regulate the conditions and procedures. Furthermore, European law is also valid via the Community Framework for national research and development grants. Funds are granted in the form of partial funding for proportional, deficit or fixed amount financing, or – in exceptional cases – also for complete funding of a project.

For applicants from public institutions, the project expenditure is the basis for calculating the amount of funding. As a rule, universities receive 100 % funding. For commercial enterprises, the project costs including the overheads represent the basis for funding. The rates for funding are subject to the standard upper limits of the guidelines for grants of the European Union. This means that in the case of application-oriented projects, as generally performed by industrial enterprises, up to 50 % of costs can be financed. However, for applicants from the former East Germany and for SMEs, the guidelines for grants permit a more differentiated bonus regulation, which may lead to a higher funding quota.

### Call

Details on conditions for funding are published in the departmental guidelines for funding and calls for proposals, which ensure that funds are used in the public interest and in accordance with legal requirements.

A special concern of the Federal Government is to provide detailed and competent advice for applicants about the possibilities of obtaining funding within the framework of the 5<sup>th</sup> Energy Research Programme. The first point of contact for such advice is the project management organization charged with realizing and implementing this research programme on behalf of the ministry responsible.

#### ▪ Type of financed projects / Programme implementation instruments

Project funding is frequently undertaken in the form of collaborative research, in which the universities and research institutes cooperate with commercial companies at the pre competitive stage in order to improve existing energy technologies or develop new energy technologies by an interdisciplinary division of labour in dealing with problems of a complex nature that can only be solved in the long term.

Applications may be made by companies with production sites in Germany, in particular SMEs, universities as well as non-university research establishments based in Germany and other institutions or legal entities. The project must be implemented and exploited in Germany. Another basic condition for funding is that applicants should make a contribution of their own to the research project.

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- **Cooperation with other Member States and Regions and third countries**

The programme and its priorities have been carefully harmonized with the research activities of industry, research work at universities and scientific institutes and also energy research in the EU. The programme also includes international cooperation with our partner countries in the International Energy Agency (IEA).

The major basis for international cooperation within the framework of research and development are the bilateral agreements of scientific and technological cooperation (Scientific Technological Cooperation – STC), for which the BMBF is responsible. In framework agreements, two governments agree, for example, on funding an exchange of personnel and on the relaxation of customs formalities.

- **Other interesting Programmes**

Please see other interesting links

- **Other interesting links**

General information on other support opportunities and procedures (national and regional level, incl. SME relevant topics):

**Auskunftsstelle BMBF-Förderung  
Forschungszentrum Jülich GmbH**

Projekträger Jülich (PtJ)

Wallstr. 17 - 22, 10179 Berlin, Germany

Tel.: 0800 - 26 23 008 (toll-free hotline)

Fax: ++49 01888 - 57 2710

[foerderinfo@bmbf.bund.de](mailto:foerderinfo@bmbf.bund.de)

[www.fz-juelich.de/ptj/index.php?index=15](http://www.fz-juelich.de/ptj/index.php?index=15)