ENERGY NEEDS RESEARCH

State Secretary Jochen Homann, Federal Ministry of Economics and Technology

No electricity means no light. No fuel means no heating and no transportation. A secure and affordable energy supply is the lifeblood of every modern economy. Yet, at the start of the 21st century, the challenges facing our energy supply are growing steadily more serious, as economic growth in emerging economies like China and India drives global energy needs upwards. The general run on scarce resources is making the situation more acute for nations with few natural resources, such as Germany. A large part of the world's energy reserves is in regions that are difficult to access or are politically unstable, with a correspondingly high risk of interruptions to supply. The increase in global energy consumption is causing an increase in emissions of climate-changing greenhouse gases.

These hard facts mean we must act fast. Energy and the climate accordingly rank very highly on the political agenda. With its Integrated Energy and Climate Programme (IEKP), the Federal Government has given the go-ahead for a concrete set of measures aimed to ensure an up-to-date, secure, and climate-friendly energy supply in Germany. It is becoming increasingly obvious that without innovative new technologies we will not be able to achieve the IEKP's ambitious objectives, at least not without imposing excessive burdens on the economy and consumers.

New technologies are never a gift from the gods; they have to evolve through research and development. This task devolves primarily on industry. In order to support its efforts, and to accelerate innovation processes in general, the federal government has made the promotion of research and development in modern energy technologies a central element of the IEKP. It has also decided to step up its activities in energy research and to further increase funding for this from 2008. My ministry's Technology Programme for Climate Protection and Energy Efficiency is a central component of these measures.

If we are to achieve the ambitious aims of energy and climate policy, however, it will not suffice simply to exploit current short- and medium-term development potential. We have to start at once developing the technologies that will be significant for energy supply in the long and very long term – technologies that we can expect to be ready for commercial use after 2020 or even after 2050. From this perspective we regard DLR's energy research as crucial.

DLR makes its greatest contribution in major areas of research where significant breakthroughs can be expected in the development of energy technologies. The emphasis is lying on high-efficiency, low-CO_2 electricity generating systems based on gas turbines and fuel cells, solar thermal power generation, efficient use of heat, including combined heat and power using fossil fuels and renewable energy sources. It is also active in concomitant systems analysis studies.

DLR deserves our thanks and recognition for the scientifically and technologically advanced solutions it is contributing towards the achievement of ambitious national and international energy policy goals.

State Secretary, Federal Ministry of Economics and Technology