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### Editorial:

#### **Dear Readers,**

Efficiency remains the most neglected variable in the sustainable energy equation -- both technically and politically speaking. While everyone acknowledges the great potential that lies in more efficient use of our energy resources in terms of cost savings, environmental and climate benefits and energy security, it is hard to understand why turning that awareness into concrete and immediate action should remain so incredibly difficult. This problem of "collective action" has complex social and technological roots and the solutions require the use of smart incentives. Developing the human and organisational capacity for energy efficiency improvements requires finding the best combination of practical technical, economic, legal and social solutions for each case. This newsletter offers a cross-section of such practical solutions. We hope you find them helpful for turning potential into tangible benefits!

The Editorial Team

## 01 | Inefficient use of energy is challenging the Pakistani textile industry

The textile industry is a key sector of Pakistan's economy but also one of the most energy intensive industries. High energy prices and the widening gap between demand and supply have a negative impact on the productivity and competitiveness of the country's industry. Energy efficiency is a crucial issue in a global market where productivity and competitiveness are major performance indicators. To tackle this issue, GTZ (on behalf of the German Ministry for Economic Cooperation and Development, BMZ) and the Pakistani Ministry of Textile Industry, Ministry of Environment, and Ministry of Industries, Production & Special Initiatives launched, in 2006, an initiative to increase energy efficiency. Through targeted interventions which include energy audits, training on technology implementation options and awareness-raising, the energy-productivity nexus has already been successfully demonstrated. It has been shown that tried-and-tested, cost-effective energy conservation techniques and processes can save up to 10-30% of energy. The initiative has succeeded in bringing about a paradigm shift vis-à-vis energy efficiency in an industry which has been heavily reliant on government subsidies in the past. Now the industry is requesting more energy audits. In the framework of the National Energy Conservation Policy the Government of Pakistan is expanding the delivery of energy audits to 60 textile units and is creating mechanisms for subsidising such audits and services in the textile industry through the federal development budget.

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## 02 | Chilean energy efficiency programme demonstrates: Energy efficiency pays off!

In 2005 the Chilean government launched the National Energy Efficiency Programme *Programa País de Eficiencia Energética –PPEE* with the aim of reducing the total energy consumption by about 1,5% per year. It focuses on five energy sectors considered to be particularly relevant. The building sector is one of them, accounting for more than 20% of national energy consumption. GTZ (on behalf of the German Ministry for Economic Development and Cooperation, BMZ) is supporting the Chilean government to improve the technical and institutional capacities of public and private sector actors regarding the design and implementation of energy efficiency measures in the construction sector. Pilot projects will publicise the financial and social benefits of energy efficiency. Social housing projects in particular will show how energy efficiency can pay off: Energy efficiency measures provide better comfort levels for occupants, while at the same time reducing energy costs for the poorest families. More information about the Chilean Energy Efficiency Programme can be found [here](#).

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## 03 | European knowledge-sharing network for innovative solutions in heating and cooling

In Europe heating and cooling are the largest single end uses of energy. Rising energy demand presents a need for innovative solutions for energy efficiency in order to ensure reliable energy prices and mitigate climate impacts. To address these issues, 18 partners in pioneer regions and municipalities from 11 European countries are now sharing their experience in the EU-cofinanced RegEnergy project. The project is facilitated by the German Federal Ministry of Finance and administered by GTZ. It involves activities on both the supply/conversion and demand side and tackles a wide range of issues including energy planning and policy making, organisation and ownership issues of local heat supply, financing mechanisms as well as technical specifications for pilot projects.

On the supply side modernising outdated district heating systems and inefficient power stations can reduce excessive energy losses, especially in most of the new EU member states. Particular attention is given to forms of sustainable energy production in district heating systems, e.g. by using renewable energy sources or residual energy from industrial processes. On the demand side innovative solutions for the efficient use of energy in municipal buildings can contribute to lower costs and mitigate the climate impact of heating. The project recently presented software tools which make it possible to assess the boost for the local economy provided by innovative energy supply solutions. This tool will help local authorities implement heating and cooling solutions. More information can be found [here](#).

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## 04 | Ukraine: New project on energy efficiency in the building sector

In comparison to its European neighbours Ukraine has one of the highest rates of energy consumption per capita. With its high dependency on expensive energy imports the inefficient use of energy poses a serious threat to the economic development of the ex-Soviet country. On behalf of the German Ministry for Economic Cooperation and Development (BMZ), GTZ in cooperation with the Ukraine Ministry of Building, Architecture and Housing and Communal Services will start a new project on increasing energy efficiency in buildings aiming to support the development and implementation of a national policy on energy efficiency. The development and implementation of standards will be a substantial part of the project. The project is running until 2010.

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## 05 | Completion of first integrated project for refurbishment of buildings in northern China

According to estimates more than 27% of Chinese primary energy consumption is used in the urban building sector. Especially in colder regions of northern China a huge amount of energy is lost due to absent standards for heat insulation for the refurbishment of existing buildings as well as for new buildings. On behalf of the German Ministry for Economic Cooperation and Development (BMZ), GTZ is cooperating with the Chinese Ministry on Construction (MOC) in order to implement one of the first integrated pilot projects for increasing energy efficiency in residential buildings in Tangshan, Northern China. The project aims to demonstrate a successful refurbishment concept and support standard development. Furthermore GTZ is assisting in the development of suitable financing mechanisms as well as promoting successful technology and know-how transfer. This project is part of a wider range of activities on environmental protection and energy efficiency in the energy industry in China. More information about GTZ's activities in China can be found [here](#).

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## 06 | GTZ supports implementation of the Indian Energy Conservation Act 2001

To sustain 8% economic growth per year India's emerging economy needs to be backed up by a reliable energy supply. The next national 5-year development plan 2007-2012 aims to decouple economic growth from growth in energy consumption, thereby assigning high significance to energy efficiency and conservation measures. The Government of India places a firm focus on the implementation of the Energy Conservation Act 2001. The Indo-German Energy Programme (IGEN) supports the nation-wide implementation of the Act, since it is an effective, market-oriented instrument to improve energy conservation. Together with GTZ and KfW Entwicklungsbank, India's Bureau of Energy Efficiency (BEE) and the Central Electricity Authority (CEA) have been commissioned to implement IGEN on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Government of India's Ministry of Power (MoP). Market potential for attractive investment in energy-efficient technologies is conservatively estimated at €1.5 billion per year, while an estimated €400 million are invested annually. "The market for energy-efficient technologies and measures is insufficiently tapped", states Albrecht Kaupp, programme manager of IGEN. "An important issue of the Act's implementation is how to market it. The Act is rare piece of legislation that forces highly energy-intensive industries to increase their profit." German technical cooperation is assisting in expanding and diversifying the supply of energy-efficient technologies and appliances in the market and secondly stepping up human resource development and marketing. Joint efforts of the IGEN programme focus on the training and certification of ten thousand energy managers and auditors up to the end of 2008, who will trigger investments in energy-efficient technologies in energy-intensive major industries as well as buildings. But also labeling household appliances and energy efficiency in buildings are activities within IGEN. A new component on improving energy efficiency in coal-fired power plants and thereby reducing the climate impact of increasing electricity demand just started. More information about IGEN and its activities can be found [here](#).

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## 07 | Energy efficiency and renewable energies crucial for Bangladesh

“Increasing energy efficiency and using renewable energies are two sides of the same coin”. Otto Gomm, manager of the “Sustainable Energy for Development” programme, sums up the agenda of the recently launched programme activities. In cooperation with the Bangladeshi Ministry of Power, Energy, and Mineral Resources (MPEMR) and on behalf of the German Ministry for Economic Cooperation and Development (BMZ), GTZ is implementing the programme with the objective of increasing the use of energy efficient appliances and production processes by industry, government, and private households. An estimated 20-30% of the electricity produced in Bangladesh today can be saved through the use of efficient appliances and production processes, starting with the reduction of system losses in the electricity sector itself. On the other hand, the programme is actively supporting the dissemination of biogas digesters, improved cooking stoves, solar home systems and other technologies using renewable energies. The Netherlands Directorate-General of Development Cooperation (DGIS) are supporting these efforts by cofinancing the programme's activities.

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## 08 | Strengthening Euro-Med cooperation on energy efficiency

Energy efficiency is gaining attention: at the fourth Middle East&North Africa Renewable Energy Conference (MENAREC) in June in Damascus energy efficiency was added as a major topic on the conference agenda. At the conference the EU financed and by GTZ implemented project on “Energy Efficiency in the Construction Sector in the Mediterranean” (MED-ENEC) demonstrated that combining measures on energy efficiency and the use of renewables energies are key for sustainable buildings. Low energy buildings make it possible to raise the ratio of supply from renewable energies and increase the economic viability of the use of renewables. MED-ENEC aims to develop the use of solar energy, in addition to bioclimatic design, insulation, natural ventilation, energy efficient lighting and air-conditioning systems, using an integrated approach. An important feature of the project is its demonstration (pilot projects) and market development dimension. More information about the project can be found [here](#).

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