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Energy Newsletter

Quarterly news on GTZ's work on energy and climate protection A service by GTZ Energy

Issue no. 13 April 2010

Dear Readers,

It is our pleasure to present to you the April issue of the GTZ Energy Newsletter. A sustainable energy solution is the pivotal element of our efforts to tackle challenges such as poverty alleviation and climate change. This newsletter provides information on GTZ's work on energy with updates on selected ongoing projects, events and publications. We appreciate your feedback. Feel free to forward this newsletter to interested friends and colleagues! If you have any questions about the projects and events highlighted in this newsletter or GTZ's work on energy in general, please feel free to contact us via email: <u>energy@gtz.de</u>.

The editorial team

International Energy Agency and GTZ IEA and GTZ launch study on Sustainable Production of Second-Generation Biofuels



The International Energy Agency (IEA) and the German Technical Cooperation (GTZ) launched a study on 'Sustainable Production of Second-Generation Biofuels: Potential and perspectives in major economies and developing countries' in Berlin. The study was carried out in close cooperation between

IEA and GTZ and has been funded the German Federal Ministry for Economic Cooperation and Development (BMZ).

This study addresses the topic of second-generation biofuels in major economies and developing countries. It assesses the framework for a successful implementation of this industry in order to identify opportunities and constraints related to the production of the new fuels. By addressing the topic at an early stage, the study provides guidance on the sustainable development of second-generation biofuels to policy makers, industry and research institutes. The study presents a comprehensive overview on the considerable potential of second-generation biofuels. It concludes that second-generation biofuels could provide 5% of the global transport fuel demand in 2030, in a world that aims for significant CO2-emissions reductions.

A large share of this potential is located in developing and emerging countries. Exploiting it will require investments in agricultural production and infrastructure to create suitable framework conditions for a second-generation biofuel industry. Investments should be undertaken as part of an integrated strategy to promote agricultural productivity and overall rural development in order to ensure best possible social and economic benefits.

The study focuses on the production of second-generation biofuels from agricultural and forestry residues, since this would avoid direct competition with food production. Using these feedstocks still holds risks, but they are managable compared to the use of dedicated energy crops. The study outlines strategies to deal with those risks and points out the importance of sustainability criteria in order to ensure a sustainable development of the

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REN21 – Coming soon: Renewables Global Status Report 2010

New publications

HERA – Poverty-oriented Basic Energy Services Carbon Markets for Improved Cooking Stoves – A GTZ Guide for Project Operators Revised Edition – February 2010 Download PDF 0.74 MB (English version) technologies.

Eight case studies allow for the assessment of different framework conditions for the set-up of a second-generation biofuel industry. The study analyses the utilisation opportunities and potential for agricultural and forestry residues in Brazil, Cameroon, China, India, Mexico, South Africa, Tanzania and Thailand.

Sustainable Production of Second-Generation Biofuels - Potential and perspectives in major economies and developing countries (PDF: 4.22 MB).

GTZ Transport Policy Advisory Services International Fuel Prices 2009 – Full edition now available



The 2009 International Fuel Prices report provides an overview of the retail prices of gasoline and diesel in more than 170 countries, discusses pricing policies, presents case studies on the impact of high and volatile fuel prices in 2007/2008 in developing countries and provides access to numerous additional

resources. (114 pages, over 450 graphs and figures).

Available on <u>www.gtz.de/fuelprices</u>.

REN21 – Renewable Energy Policy Network for the 21st Century

New Interactive Map illustrates rapid diffusion of renewable policies worldwide



In the last decade hundreds of policies promoting renewable energies have been created worldwide. One of the greatest RE success stories is the worldwide deployment of feed-in-tariffs (FiTs) for

electricity from renewable sources. Only ten years ago not more than 13 countries had enacted FiTs (see GSR 2007) while today at least 57 countries imposed some kind of subsidized pricing for electricity generation from renewables. This already represents almost one third (30 percent) of all countries worldwide.

Such large scale of renewable energy policy deployments in the meanwhile created an unprecedented challenge to researchers, policy makers and other interested stakeholders to keep track of the latest information globally. Earlier this year REN21 launched a new tool to map and channel this diffuse and scattered development, and to provide comprehensive and at the same time precise information on RE policies and technologies worldwide to policy-makers as well as to interested actors in science, industry and civil-society. Beside the rich policy section, also installed capacities, current shares and expansion targets of RE in primary energy, final energy or electricity can be displayed for all countries worldwide.

However, not only the amount of RE policies in place had changed. Also the regional distribution of installed capacities of RE and RE policies has modified within the last decade as a quick look on the REN21 interactive map clearly indicates. While in the year 2000 mostly OECD-countries had introduced RE policies, today more and more developing countries as well as countries in transition introduced RE FiTs like India, Indonesia and South-Africa.

To get a user-friendly and visual overview of these success stories in a datarelated way, the REN21 interactive map provides a geographical grounded rich collection of information about RE and, maybe even more important, always cites the different sources for verification or further research.

IEA – International Energy Agency

Sustainable Production of Second-Generation Biofuels – Potential and perspectives in major economies and developing countries February 2010 Download PDF 4.22 MB (English version).

GTZ Transport Policy

Advisory Services International Fuel Prices 2009 – Full Version December 2009 Download PDF 7.92 MB (English

version)

GTZ Transport Policy

Advisory Services Towards Technology Transfer in the Transport Sector – An Analysis of Technology Need Assessments

Download PDF 1.02 MB (English version).

Upcoming events

19-21 April 2010 Hamburg/Hanover, Germany <u>5th German-African Energy</u> Forum

20-22 April 2010 Vienna, Austria Africa-EU Energy Partnership (AEEP), High Level Meeting

22 April 2010 Vienna, Austria <u>Global Forum on Sustainable</u> Energy (GFSE)

27-29 April 2010

Budva, Montenegro Sustainable Energy Management in Public Buildings – from Policy to Local Action

11-12 May 2010 Valencia, Spain <u>Conference on the Mediterranean</u> <u>Solar Plan</u>

18-21 May 2010 Nairobi, Kenya Lighting Africa Conference und Trade Fair

27-29 October 2010 New Delhi, India DIREC2010 - Delhi International

GTZ Energy Efficiency

Energy efficient lighting in Kosovo

Kosovo, as many developing and industrialising countries, is affected by the ongoing increase in energy prices and energy insecurity. The population as well as the economy suffer from power shortages. Furthermore, the Kosovan utility has to import expensive electricity, while selling it below costs. This puts a burden on the national budget, causing a lack of investment resources in other areas such as health care, education, or infrastructure.

Increasing energy efficiency can confront these challenges. Especially in lighting, where 20% of the global electricity is used, energy savings of up to 80% could be realised by implementing energy efficient technologies. Thus, energy savings in Kosovo's lighting sector could help to make the country's energy supply more reliable and to support the creation of sustainable economic growth.

Therefore, the Ministry of Energy and Mining (MEM) in Kosovo together with the GTZ sector programme "Strategies and political advice for energy efficiency" launched a new campaign on Energy Efficient Lighting. The objective of the campaign is to increase awareness of the benefits of energy efficiency measures among political decision-makers, the commercial and the private sector. In addition these target groups will be motivated to increase the application of energy efficient systems.

The advantages of energy efficient lighting will be demonstrated in six public buildings . Lighting audits have already been carried out and in the next step energy efficient lighting systems will be installed. In addition, numerous information events and vocational training sessions will take place. Private households will be addressed by a separate programme for efficient lighting, which is being prepared in close cooperation with the energy utility.

For further information on GTZ's work on energy efficiency please visit <u>www.gtz.de/...</u>.

Technology transfer for renewable energy

Solar now! Increasing the share of solar in Kenya's and Tanzania's energy mix: win-win potentials for the East African and German solar industry



Over the last decade Kenya and Tanzania have achieved impressive economic growth. As a consequence, Kenya as well as Tanzania both face a sharp increase in energy demand, outstripping supply. Everyday life is characterized by power outages and load shedding. Making things worse, both countries' energy supply is heavily reliant on hydro power which in the past has proven to be particularly vulnerable to droughts. In combination with rising costs

for fossil energy sources, renewable energy technologies therefore have become a viable option to increase the supply of cost efficient, reliable and environmental friendly electricity.

Not surprisingly, Kenya and Tanzania are both keen to boost the share of renewables in their energy mix and look for international partners to jointly develop their markets. One of the prospective players is the German solar industry. In March, a delegation of eight leading German solar companies visited Kenya and Tanzania to explore the solar business opportunities.

To link up the East African and German private sector, GTZ organized the business trip to Kenya and Tanzania as part of the Renewable Energy Project Renewable Energy Conference 2010

Recommended newsletters

REN21 – Renewable Energy Policy Network for the 21st Century

REN21 newsletter

European Union Energy Initiative Partnership Dialogue Facility (EUEI-PDF)

EUEI-PDF newsletter

GTZ offers a range of companywide and subject-specific newsletters listed on GTZ's newsletter subscription page.

More GTZ newsletters

Back issues

<u>Click here</u> to browse back issues of GTZ's energy newsletter.

Development Programme (PDP). PDP is funded by the German Federal Ministry of Economics and Technology (BMWi). In addition to getting in touch with potential business partners, the programme also included meetings with the public sector to discuss framework and investment conditions. Apart from solar for off-grid and rural electrification, also grid-connected options were elaborated, such as pilot projects for net-metering.

Michael Franz, Regional Energy Advisor at GTZ in Nairobi, sums up the positive impacts: "The overall objective is to improve energy access in East Africa by private-sector driven promotion of renewable energy. GTZ acts as a facilitator by triggering German-East-African business partnerships and by supporting the development and sophistication of the local markets for renewable energy." A win-win situation for both sides: On the one hand, the Kenyan and Tanzanian companies get in touch with internationally experienced partners to extend their know-how and to realize joint projects in the future. On the other hand, the German companies profit from the local expertise of their partners and learn how the market is structured, which channels of distribution have proven to be successful and how products and services have to be adapted to local consumer needs. "And last but not least, promoting the use of domestic renewable energy sources has positive effects for economic development, for reducing forex drain, and, of course, also for climate and environmental protection", Michael Franz concludes.

For further information on the programme's activities see www.gtz.de/projektentwicklungsprogramm.

EUEI PDF

Africa-EU Energy Partnership - High Level Meeting



On 20-21 April 2010 the first High Level Meeting of the Africa-EU Energy Partnership (AEEP) will take place at the Imperial Palace in Vienna, back-toback with the Global Forum on Sustainable Energy (GFSE).

The Africa-EU Energy Partnership was established as one of eight priority areas of the Joint Africa-EU Strategy (JAES) and reflects the international challenges of energy security and diversification of supply, access to

affordable, clean and sustainable energy services, new and renewable energy resources and climate change. It is co-chaired by the African Union Commission and Mauritius on the African side and by Austria and Germany on the European side. In the Joint Statement of the African Union Commission and the European Commission it was agreed to contribute to an effective Africa-EU dialogue by arranging for a High-Level Africa-EU Ministerial Energy Meeting every two years.

This year's meeting is organized by the EU Energy Initiative's (EUEI) Partnership Dialogie Facility (PDF) – co-financed by BMZ – and addresses the following objectives:

-To reaffirm the joint commitment to enhancing energy security and energy access on both continents as well as promoting renewable energy and energy efficiency in Africa

-To endorse the AEEP Road Map and agree to work closely on the implementation of its priority actions

-To adopt a Declaration by African and EU Ministers including political targets for implementation until 2020

-To agree on recommendations for the upcoming Africa-EU Summit in the second half of 2010

Invited participants include representatives from the European Commission and the African Union Commission, African and EU Ministers responsible for the Energy Sector, representatives of the Regional Economic Communities, Regional Power Pools as well as regional and international development banks, international organizations and other specialized institutions. For further information please visit <u>www.aeep-conference.org</u>.

The Partnership Dialogue Facility (PDF) is an instrument developed by a number of EU member states and the European Commission in the context of the EU Energy Initiative (EUEI). The Project Management Unit of EUEI PDF has been established at German Technical Cooperation (GTZ). (EUEI PDF website: <u>http://www.euei-pdf.org</u>)

GTZ Energy Efficiency Energy audit trainings increase energy efficiency

The building and industry sector represents the biggest energy consumer. Consequently, the highest potential for energy savings through increased energy efficiency can be found in this sector as well. The existing energy saving potential is not realized, primarily because of lacking awareness regarding the handling of energy.

Approaches by the GTZ to confront this so "called energy efficiency" gap have been proven successfully. They consist of vocational and further education of energy auditors and energy managers in the building and industry sector. These instruments make it possible to meet energy efficiency targets in developing and industrialising countries effectively.

Energy auditors and managers do not only need to identify potential energy savings but also to support the realisation of the proposals and the monitoring of the results. In order to develop adequate programmes, the partner will be supported by carefully selected experts. Still, the preparation of country-specific training materials and education programs is not the only necessity. Furthermore, adequate frameworks (e.g. energy management systems for buildings and industry), incentive programs (e.g. subsidies for audits) and marketing and promotion activities have to be developed.

The education programmes' sustainability will be assured by integrating the energy auditors and managers into existing organisational structures, as the Chambers of Commerce and Industry. At present GTZ intensifies its audit training activities in India, South Africa, Pakistan, Mexico, Brazil, Tunisia, Ukraine and Montenegro.

For further information on GTZ's work on energy efficiency please visit <u>www.gtz.de/...</u>.

GTZ Central Asia: Dam safety as a promoter for regional cooperation



Within the framework of the Water Initiative for Central Asia, launched and supported by the German Federal Foreign Office in 2008, GTZ organized a study tour in Germany for a delegation from Uzbekistan's "State Safety Inspection on Large Water Infrastructure".

The study tour in February 2010 focused on "Dam Safety". The delegation visited several dams managed by the Ruhr River Association, the Thuringia District Water Supply and the Dam Authority of the Free State of Saxony, and met with specialists from these organizations. The exchange of management experiences and technical solutions was beneficial for both sides, and it is foreseen to maintain the contacts established during this study tour. Upon their return to Uzbekistan, the delegation members will make recommendations to the Government for improved management of dam safety.

The idea behind the Water Initiative is to support Central Asian countries in water management and to make water a subject of intensified transboundary cooperation. The primary goal is to intensify coordination and cooperation between the Central Asian nations in order to achieve sustainable and free of conflicts water and energy management. Dam safety is a key topic for the region in this context – especially regarding the security of the downstream raparians - and according to the Uzbek delegation it has the realistic potential to open a window of opportunity for cross-national collaboration in the highly politicized environment in Central Asia.

The results and recommendations of this study tour will be reflected in a regional workshop on dam safety for specialists of the five Central Asian states, also supported by the German Federal Foreign Office.

GTZ Transport Policy Advisory Services

Towards Technology Transfer in the Transport Sector - An Analysis of Technology Need Assessments

Global greenhouse gas emissions from transport will grow by 120 per cent on 2000 levels by 2050 according to OECD/ITF scenarios. Most of this increase will be caused by road transport in developing and emerging economies. Technology Needs Assessments (TNAs) are submitted by developing countries to the UNFCCC outlining their respective needs for transfer of and capacity building on GHG mitigating technologies. GTZ has analyzed more than 50 transport-related chapters of TNA Country Reports submitted to the UNFCCC since 2001. The results of the analysis emphasize the importance of "soft" and low-cost measures in the transport sector, such as public transport improvements, land use planning or non-motorized transport.

Towards Technology Transfer in the Transport Sector – An Analysis of Technology Need Assessments (PDF: 1.02 MB).

REN21 & ICLEI The Local Renewables Web Portal



REN21 and ICLEI launched the Local Renewables Web Portal – a gateway to information on generating and using renewable energy at the local level. The Local Renewables Web Portal was commissioned by REN21 (Renewable Energy Policy Network for the 21st Century) and developed by

ICLEI – Local Governments for Sustainability with support from ISEP (Institute for Sustainable Energy Policy). Funding came from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) through the GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit / German Technical Cooperation).

The Local Renewables Web Portal is a one-stop shop containing policies, guidelines, technologies, information sources, events and other core sources. It has references to good local practice, model strategies, enabling framework conditions, training opportunities and tools, as well as tips on how to become a "Local Renewables Model Community". The Portal serves local officials and users from civil society and business by highlighting local action on renewable energy and providing helpful tools for incorporating renewable energy in city energy plans. Local governments can find help on integrating sustainable energy into their municipal development strategies. Other stakeholders including national governments, businesses, and NGOs can learn more about what local governments are doing to promote the uptake of renewables. Input is welcome to make it a lively, interactive platform.

The partners of the Local Renewables Web Portal seek to help enable local

governments to become a driving force for innovation and investment towards a renewable energy future.

Visit the Local Renewables Web Portal at <u>local-renewables.org</u> or <u>www.local.ren21.net</u>.

Conference – 27-29 April 2010, Budva, Montenegro Sustainable Energy Management in Public Buildings – from Policy to Local Action



The Ministry of Economy of Montenegro and the German Organization for Technical

Cooperation (GTZ), supported by the German Federal Ministry for Economic Cooperation and Development, are pleased to announce the regional Energy Efficiency Conference "Sustainable Energy Management in Public Buildings – from Policy to Local Action" in Budva, Montenegro, 27 - 29 April 2010.

The conference aims at information exchange between EU and SEE as well as among SEE countries about policy, strategies, technical solutions, financing schemes and quality assurance for energy efficiency in (public) buildings; promoting the networking between the German / local business sector and the national / municipal decision makers (for the planning, commissioning, refurbishment and operation of public buildings); information exchange about strategies to realize cost-effective energy-savings in different public buildings like schools, universities, hospitals and public administration buildings; and contributing to raise the awareness about energy efficiency.

For more details, please visit the official conference web site: <u>www.energy-efficiency-conference.com</u>.

REN21 – Renewable Energy Policy Network for the 21st Century

Coming soon: Renewables Global Status Report 2010



The Renewables 2010 Global Status Report, the fifth in a series launched in 2005, is scheduled to be released early July, 2010 by the Renewable Energy Policy Network for the 21st Century (REN21). The report gives readers an integrated perspective on the global renewable energy situation worldwide. The product of an international team of over 150 researchers, contributors and reviewers from both developed and developing countries, drawing upon wide-ranging information and expertise, the report

ensures transparency and accuracy. It has become REN21's flagship publication and the industry standard, serving a wide range of audiences from investors to governmental decision makers, from students to project developers, from researchers to industrial manufacturers. In just five years, the REN21 Global Status Report has become the most frequently referenced report by any given renewable energy related publications, as well as turning into an industrial benchmark of its own.

For further information please visit www.ren21.net/globalstatusreport/...

Imprint

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