

## Editorial

*Obviously, access to energy is a prerequisite to alleviate poverty so that the worldwide struggle for inclusive growth leads to an ever increasing energy hunger. But we all know that non-renewable energy is scarce while nuclear energy suffers from severe risks and image problems since man-made disasters struck in Chernobyl and Fukushima.*

*The economist's solutions to the dilemma sound simple and directed to both the demand and the supply side of the energy market. The magic words today are energy efficiency and renewable energy. But implementing policies towards more energy efficient practices and increased investments in renewable energy is cumbersome. National energy market conditions vary significantly, and behavioral patterns of consumers do not allow for uniform approaches.*

*In this context, sustainable energy finance is just one instrument in the toolbox – but possibly a very effective one. It can stimulate a broad range of investments in energy efficiency and in renewable energies, and initiate changes in consumption patterns. This newsletter highlights practitioners' experiences in green finance projects implemented by GFA under diverse conditions worldwide.*

*I would like to use this last newsletter in 2012 to thank all of our readers for their lasting interest. Many of you offered outstandingly positive feedback which encourages us at GFA to go ahead with the newsletter. Finally, I wish you all a peaceful Christmas season and a New Year that may hold prospects for us to make this world a better place.*



Klaus Altemeier  
Managing Director  
GFA Consulting Group

## Green Finance – Closing in on a Complex Topic

**With energy prices on the rise, energy costs are of increasing importance for enterprises, municipalities and private households. The transition towards green, resource efficient and low-emission economies has picked up speed in recent years. In 2011, investments in renewable energies (RE) nearly reached the level of investments in power generated from fossil fuels. This trend is enhanced by green finance, which includes investments in more efficient energy utilization. Energy efficiency (EE) investments aim to save energy, increase competitiveness and decrease dependence on volatile energy tariffs.**

Green Finance or Sustainable Energy Finance Facilities are an important instrument in the transformation to low-carbon, resource-efficient economies. In recent years, GFA has won significant experience implementing Green Finance Facilities in various countries, including in three of the BRICS states: Russia, China and South Africa. While the goals and structures of these projects are similar, target groups and the investments' focus can vary. The investments' scope covers a wide variety of EE projects in industry, commercial buildings and RE projects. Other initiatives focus on selected market segments such as small and medium enterprises (SMEs) or the residential sector. In these projects, GFA supports anywhere from one to eight financial institutions in their efforts to finance green projects. In

all cases, the successful implementation of a green finance program requires each partner bank (PB) to develop dedicated lending products that meet the market demand of the target group concerned, and comply with the underlying conditions regarding CO<sub>2</sub> emissions.

One of the main challenges in almost all projects is awareness raising. For political reasons, many countries keep energy costs well below market prices. Additionally, many potential investors focus on short-term interests. Intensive marketing activities focusing on the long-term benefits of EE investments are necessary to overcome this thinking. Beyond marketing the loan facilities, GFA supports PBs in product development, project screening and training. Potential borrowers are assisted in identifying the most viable technical and financial solutions for their investment needs by performing energy assessments, calculating financial benefits and supporting the loan application process. To this effect, GFA has developed a set of proven standardized tools and methodologies that ensure rapid program launch. This toolkit includes operations manuals, marketing instruments, training modules and an online energy savings calculator.

Contact Ulla Törnroos  
[ulla.toernroos@gfa-group.de](mailto:ulla.toernroos@gfa-group.de)



*Investments in more efficient energy utilization are paying off*

## Green Finance in Action



### Sustainable Energy Efficiency Finance Facility in Russia

Energy consumption and, consequently, greenhouse emissions per unit of GDP are over three times higher in Russia than in Germany. Despite the country's great potential for EE investments, awareness and knowledge about the benefits of such remain limited, as do environmental concerns. Instead, low energy prices support inefficient energy consumption.

The Russian Sustainable Energy Finance Facility (RuSEFF), until 2014, assists the European Bank for Reconstruction and Development (EBRD) in the design and implementation of green lending in Russia providing funding for modernization investments with a special focus on EE equipment and technologies. RuSEFF offers private finance initiatives the opportunity to enter into new business sectors and client segments. EE loans are regarded as being less risky, because investments generally result in cost savings, which can be more reliably calculated than investments for expansion.

From the beginning, GFA knew that RuSEFF would be a very challenging project. Understanding how program implementation should be structured and what kind of capacity building was necessary was thus clearly a key to project success, and could only be achieved in close cooperation with partner banks. Consequently, RuSEFF makes companies aware of the environmental and social impacts of inefficient equipment and educates PBs on how best to implement EE lend-

ing. For example, outdated machinery remains in most enterprises, which face technological problems in their production cycle as a result. GFA engineers contribute to businesses' competitiveness by checking energy performance on-site and introducing best practices.

Since mid 2011, RuSEFF has funded over 150 EE projects all over the country, and about 200 companies have received assistance in optimizing their operation costs and improving production sites and working conditions. More than 85 enterprises have received technical support in project evaluation and energy assessments. Thanks to loans financed under RuSEFF borrowers could reduce their energy consumption by 30-50% ([www.ruseff.com](http://www.ruseff.com)).

### Green Energy Efficiency Fund in South Africa

Since June 2011, GFA has been assisting the Industrial Development Corporation (IDC) of South Africa in implementing the Green Energy Efficiency Fund (GEEF). IDC is a development finance institution owned by the South African government, who partnered with KfW Entwicklungsbank to establish the 45 million euro GEEF for EE and RE projects within South Africa. The fund supports IDC's alignment with the government's key policy initiatives, such as the New Growth Path, which focus on green economic growth. As South Africa remains highly dependent on coal as an energy source, the government has declared that the country must produce 42% of its elec-

tricity from RE sources by 2030. Furthermore, EE has become a strategic priority for businesses, as the country experienced energy price increases of 25% per year in 2010 and 2011, and 16% in 2012.

GEEF's objectives are threefold: Stimulate EE investments, support RE technologies and contribute to global climate protection while promoting long-term enterprise competitiveness. The fund provides loans from 95,000 euros to 4.5 million euros at a concessionary rate of prime less 2%. GEEF allows for loan repayments of up to 15 years, depending on the payback period of the EE or RE technology.

One of the technologies financed under the GEEF are solar water heaters (SWH). SWH systems are one of the most cost-effective uses of solar energy in South Africa, replacing more than 40% of electrically heated water. However, the SWH market faces many challenges including high capital costs and affordability. To unlock these barriers to market penetration, IDC, through the GEEF, has provided financing to a financial intermediary who is providing SWH to private households and commercial buildings through lease-to-own agreements. GEEF serves as an example for commercial banks in South Africa, showing the way forward through an innovative and profitable approach to green investments for the SME sector.

### Green Initiative in Eastern Europe

The Green Initiative (GI) covers demand-related EE investments in the industrial and building sector, which are imple-





mented by SMEs, small energy service companies (ESCOs), and housing associations. RE projects are eligible if the energy generated is mainly used by the beneficiary itself or as part of an EE investment. The GI is part of a larger SME Facility that supports EE development in selected EU member states. It will initially operate in Hungary, Poland, Romania and Slovakia. The Facility will likely expand to Croatia and the Czech Republic as early as spring 2013.

The Facility combines European Investment Bank (EIB) credit lines with EU grants designed to compensate PBs for the additional processing efforts, as well as investment grants for SMEs and funding for consulting services. EU grants are leveraged at a ratio of 1:5 with EIB loans. The credit lines in the program amount to a total of 100 million euros. Individual projects of up to 12.5 million euros can be funded, with investment grants capped at 140,000 euros. Companies and projects that qualify for grants have to comply with defined SME criteria and secure energy savings of at least 30% in the building sector and 20% in the industrial sector.

In July 2012, the EIB selected GFA and its consortium of engineering partners to implement the GI contract and manage the Facility. The planned technical assistance involves overall implementation support, including project identification, pipeline development, marketing, information and training. In addition, energy assessments and project verifications are elaborated. Assignments will be completed

on a call-off basis according to the project's needs and the PBs' requests. Project inception started in September 2012. GI implementation is scheduled for a period of three years. It is expected that sub-loans will be implemented through June 2015 and that all grants will be disbursed by September 2015.

### **Green Financing Program in China**

China is regarded as one of the strongest centers of economic growth worldwide. Steady growth has increased living standards, but has also led to environmental degradation. Coupled with rapid urbanization, this has resulted in an increased need for urban services. Yet particularly smaller cities often lack the resources to finance environmentally friendly urban facilities.

Recognizing this trend, KfW Entwicklungsbank designed the Green Financing Program (GFP), a credit line of 62 million euros, available 2012-2014. GFP aims to address municipal financing gaps to make environmentally beneficial investments in China's urban infrastructure. CITIC Bank based in Beijing, and Chang'an Bank in Xi'an are participating in the GFP. Despite the differences in scale and culture of the two banks, the criteria for the GFP sub-loans are the same: Investments in EE or RE are expected to reduce or mitigate greenhouse gas by 20%, public or private investments have to benefit the urban sector, and the project limitation is approximately six million euros per project. GFA was trusted with the implementation of the GFP at the PBs, providing technical assistance to address

the challenges of this new financial product. The specific energy requirements of the GFP make technical inputs a necessity in the selection of potential projects. The GFA team is familiarizing bank staff with the types of projects, sponsors and potential energy savings aimed for by the program. The GFP's focus on municipal infrastructure poses client risks as Chinese municipalities cannot contract loans directly. But there are alternatives. One option considered under the GFP is the involvement of third party suppliers such as ESCOs that can contract loans for energy saving investments, provided that adequate guarantees exist. Another challenge is the focus on smaller, urban investments, as the administrative costs to prepare such projects fall between standard commercial loans and project finance of both banks participating in the GFP.

Despite these challenges, the GFP brings distinct benefits to the PBs. The existing financing gap in China for EE urban infrastructure, particularly in smaller cities, is addressed. A contribution to overall Chinese environmental objectives is made. The PBs develop capacities and skills to identify urban infrastructure projects as a business opportunity, and create a distinctive green image at the same time.

*Ulla Törnroos (Russia), Diana Cordes (South Africa), Karsten Stellner (Eastern Europe), and Renata García (China)*  
*ulla.toernroos@gfa-group.de,*  
*diana.cordes@gfa-group.de,*  
*karsten.stellner@gfa-group.de,*  
*renata.garcia@gfa-group.de*

### First Regional Emission Factor

GFA ENVEST is the first worldwide to develop a transnational Standardized Baseline (SBL) in the context of the Clean Development Mechanism (CDM). The United Nations Framework Convention on Climate Change (UNFCCC) completed its assessment and published the SBL on 21 Sept, 2012. In three rounds of policy consultations, all nine countries signed the SBL before it was officially submitted to the UNFCCC Secretariat in mid August 2012. The SBL was developed on behalf of UNEP and in close coordination with the Southern African Power Pool (SAPP) which covers nine countries in the region. It is based on an electricity model that determines the emission factor for the SAPP electricity system. The baseline for a CDM project activity is the scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the proposed project activity. The innovative approach used by GFA experts solves technical problems and allows for CDM project development in the electricity sector, where this was not possible before.

*martin.burian@gfa-group.de*

### GFA Expands its Headquarters

GFA Consulting Group, based in Hamburg-Volksdorf, continues to grow: In order to accommodate needed working space for 250 employees, GFA is moving into a new office building right next to the existing one. The topping out ceremony took place on 28 September 2012. The two-shell masonry construction with red-brown ceramic plates will perfectly

complement the existing mixture of steel and red brick. Transparent areas will be provided by triple-glazed glass. The main energy source of the new building is geothermal, which in summer will also be used to cool the top floor.

*klaus.altemeier@gfa-group.de*

### GFA B.I.S. Turned Ten

Founded in 2002, GFA B.I.S. celebrated its tenth anniversary on September 14, 2012 in Bonn together with its shareholders, the GFA Consulting Group management, colleagues and friends. Over the past decade, the company has successfully extended GFA's portfolio in the ODA sector by IT-related services. The company thrives on tailoring professional standard software to individual customer's needs and demands in order to increase efficiency, transparency and sustainability. This ambition has been achieved in more than 50 projects worldwide. Starting with financial management and fund management, GFA B.I.S. developed additional ODA-specific software tools such as management information systems (MIS) and open source based systems. Aside from software development and implementation, IT consulting is of growing importance within the range of services of GFA B.I.S.

*harald.litterscheid@gfa-bis.de*

### DAS HAUS on Tour in America

In North America, the world's largest energy consumer, demand for energy-efficient and renewable technologies is growing rapidly. For a year since October 2011, a mobile pavilion called DAS HAUS has toured twelve major cities in

the US and Canada showcasing German technology for energy-efficient housing construction and solar energy use. DAS HAUS is supported by the Energy Efficiency and Renewable Energy Export Initiatives, two programs led by the German Federal Ministry of Economics and Technology (BMWi). Germany has established itself as an international market leader and innovation driver in these sectors as "Made in Germany" and "German engineering" are associated with innovation and dependable quality. GFA staffs the coordination office to assist BMWi with technical and organizational expertise in implementing the export initiatives. In this context, GFA consultants were mainly responsible for developing the DAS HAUS project and coordinating the road show in North America.

*susanne.lein@gfa-group.de*

### GFA Celebrates 30th Anniversary with "think!" Magazine

Celebrating its 30th anniversary in 2012, GFA has published the "think!" Magazine ([www.gfa-group.de/epaper/index.html](http://www.gfa-group.de/epaper/index.html)), a special publication highlighting the company's remarkable success story over the past 30 years. GFA Consulting Group's financial development will reach a historical high this year with a turnover of around 76 million euros. In the magazine, founder Johannes Lagemann as well as former and present employees and directors, team leaders and business partners reflect upon GFA's origins and milestones, lessons learned from projects worldwide, and current trends in development assistance.

*klaus.altemeier@gfa-group.de*

**IMPRINT** GFA newsletter produced by GFA Consulting Group GmbH, Eulenkru-  
gstraÙe 82, 22359 Hamburg, Germany, phone: +49(40)60306-0, fax: +49(40)60306-199, e-mail:  
[info@gfa-group.de](mailto:info@gfa-group.de), [www.gfa-group.de](http://www.gfa-group.de) | All rights reserved © 2012 | Responsible for content:  
Dr. Klaus Altemeier | Edited by Manfred Oepen, ACT | Layout: Natascha Malik | Printed by  
Zertani, Bremen

**GFA Consulting Group** is a growing consulting organization active in international economic development. The main sectors of the company comprise agriculture & rural development, natural resources & certification, public sector & fund management, private sector development, water & sanitation, health & HIV/AIDS, financial systems development, labor markets & human resources, climate change & energy, and forest investment fund. GFA Consulting Group presently works in more than 70 countries.

**GFA vision** – to be the partner of choice for clients in our core service areas.

**GFA mission** – to improve the livelihood of beneficiaries through our professional services.

**GFA core values** – to offer high performance in service delivery, technical excellence in our main sectors, innovative approaches and products, and credibility with our clients when putting projects into practice.