

Editorial

It is energy that makes the world turn around. Therefore, its efficient use is the key to economic development and modern lifestyles.

In theory, energy efficiency is easy – just set the right price. But in practice, oil, gas or coal prices have always been heavily distorted. Most energy producing countries are governed by short-term political goals. Along the supply chain, many countries tax or subsidize energy consumption. Subsidies for energy-intensive industries or public transport in particular have proven hard to remove.

How to increase energy efficiency under such difficult conditions? One option is to change the state of affairs. Another one is searching for solutions that work within a given policy environment.

GFA does both. GFA offers a wide range of services, which offer policy makers opportunities to create awareness on and motivate for specific action in favor of energy efficiency. But GFA also offers innovative approaches that directly foster private investments in energy efficient technologies.

This newsletter's first article provides an overview of energy efficiency in the context of economic development. The second and third article present specific examples of GFA at work, enhancing energy efficiency under diverse conditions and for different target groups.

Energy efficiency is not a copy/paste process but requires innovative approaches. This is what our consultants around the world engage in, stimulated by experienced GFA backstoppers back home.



Klaus Altemeier
Managing Director
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Energy Efficiency – A Potential Untapped

What lowers carbon emissions, extends energy supply, increases energy security and generally supports sustainable economic growth at the same time? In fact, there is a pretty simple answer: energy efficiency. But why has the potential of this relatively simple solution not been unlocked so far?

Indeed, the untapped potential remains high despite investments in energy efficiency have gained pace in recent years and are globally at a similar scale in comparison to those in renewable energy or fossil-fuel power generation. According to the International Energy Agency (IEA), more than half of the potential savings in industry and up to 80% of opportunities in the building sector worldwide remain untouched.

If the 28 IEA member states implemented the IEA's 25 energy efficiency policy recommendations, energy costs worth one trillion US dollars could be saved annually. The main obstacle has to be seen in the subsidization of energy. Subsidized energy prices are not only strong disincentives for investments but also exhaust limited government funds. IEA estimates direct subsidies worldwide at roughly 500 billion US dollars, double the amount for indirect subsidies. Particularly in developing countries, the reduction of incentives

is politically delicate. However, there are a couple of measures to foster energy efficiency. Evidently, access to finance plays a key role. GFA has gained outstanding experience in sustainable energy finance as expert teams, on behalf of KfW, EIB and EBRD, support private banks in establishing credit lines focusing on energy efficiency in industries and the building sector. Additional innovative market mechanisms such as National Appropriated Mitigation Actions (NAMAs) in the Indonesian cement sector on behalf of a GIZ climate change program have been explored.

Creating an enabling policy environment is another essential success factor that fosters energy efficiency. GFA Consulting Group has been drawing on a vast expertise related to climate change, mostly in EU programs.

Last but not least, soft skills such as capacity building and awareness raising complement conventional technical assistance. To this end, GFA offers a wide range of services to the EU and GIZ, e.g. energy management training for government and industrial staff in the Balkans, Central Asia, Indonesia and Tanzania, and awareness raising on energy-related technologies.

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Oil- and gas industry in the Caspian Sea

KyrSEFF – 360° Innovation

Kyrgyzstan has abundant hydropower sources but the country suffers from energy shortages due to obsolete power generators and massive transmission losses. It is energy losses in the building sector that cause the greatest concern as the residential sector is responsible for more than half of the total national energy use. This is mainly due to the low quality of buildings' thermal protection – energy use per square meter is three to five times higher than in the EU.

The European Bank for Reconstruction and Development (EBRD) has recognized this substantial potential for sustainable energy investments in Kyrgyzstan and established the Kyrgyzstan Sustainable Energy Financing Facility (KyrSEFF) of up to 20 million US dollars. Credit lines to Kyrgyz Partner Financial Institutions (PFIs) allow for on-lending to private sector borrowers to invest in sustainable energy. The Facility is supported by grant funding provided by the European Union Central Asia Investment Facility (IFCA). KyrSEFF is designed to contribute to the reduction of energy consumption by supporting energy efficiency investments, mostly in the residential sector but also for small and medium enterprises (SME). The Facility does not only target end beneficiaries but also PFIs.

Since February 2013, GFA and its partners are supporting the PFIs in setting up and implementing the KyrSEFF on-

lending infrastructure. The KyrSEFF team provides the PFIs with training for loan officers and advice on marketing of the Facility. In addition, KyrSEFF experts advise clients on appropriate equipment decisions to achieve desired comfort levels and energy savings.

Marketing of the KyrSEFF Facility continues to be one of the key activities. Making ultimate beneficiaries and PFIs aware of the benefits of investing in energy efficiency helps warranting a sustainable use of available funds. Awareness raising incorporates TV and radio shows, videos, print, Internet and social media work.

KyrSEFF advice is not limited to technical aspects. The KyrSEFF team has been advising a housing development project in Tokmok on appropriate condominium structures and technical improvements. The project was initiated by the Mayor, who provided housing for 56 families employed in social and medical services. The city government provided the land and the families have taken up loans for the construction of dwelling units. The project started out as individual houses built of prefabricated modules without heating. Due to KyrSEFF engineers, the project progressed to multi-family buildings, all insulated and with central heating.

KyrSEFF was launched just over a year ago. Given the low energy prices in Kyrgyzstan, expectations for a fast take-up



Handing over a KyrSEFF brochure

of this credit line were low. However, KyrSEFF is outperforming all expectations and performance parameters. So far, more than 160 households and over 20 SMEs invested in energy efficiency measures financed by KyrSEFF. To date, 32,800 MWh are saved annually, with a corresponding carbon emissions reduction of 10,550 tons equivalent carbon dioxide. As the funds of KyrSEFF have almost been utilized, EBRD started working on KyrSEFF II – almost two years earlier than planned. Because of its high performance, EU selected KyrSEFF as a best practice case study and a valuable source of evidence for development effectiveness in April 2014.

Energy and carbon saving through actionable technical advice and attractive loan and grant combinations are not the only achievements of the Facility. KyrSEFF for businesses has increasingly been financing innovative projects that enhance energy conservation across all sectors. Additional progress is made by increasing the choice of technologies available. To this end, KyrSEFF is currently organizing an event introducing Turkish suppliers to the Kyrgyz market.

The KyrSEFF team copes with social responsibility by carrying out energy audits in a school, a kindergarten and a public hospital. It develops a catalogue of energy saving measures and mobilizes sponsors for the financing of implementation options. Hence, KyrSEFF is outperforming many other SEFFs while breaking new ground (www.kyrseff.kg).

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Building remediation is necessary to reduce heating costs in Kyrgyzstan

Energy Efficiency – GFA at Work

Energy investments in Turkey

Turkish small and medium enterprises (SMEs) need assistance in reducing energy consumption and reaping benefits of energy cost reductions that have direct impacts on companies' profitability. Technical personnel of such companies are usually skilled in systems maintenance but do not master sufficient know-how for defining more complex energy savings projects. Therefore, GFA supports VakifBank in implementing a World Bank credit line worth 67 million US dollars. The credit line targets SMEs in Turkey to invest in energy efficiency. GFA experts assist awareness raising and the promotion of market demand for energy efficiency improvements in the industrial sector of the country.

The project aims at familiarizing VakifBank with appraising and financing energy projects and providing local engineers with technical expertise to identify and prepare technically feasible, bankable projects. As a result, VakifBank is expected to instigate a sustainable product portfolio for investment in SME energy efficiency projects in Turkey. GFA experts assist the bank in developing an energy efficiency calculator and, together with the bank's staff, provide technical evaluations of investment proposals submitted by SMEs. The team will create an individual training program for World Bank energy efficiency loans and provide intensive training for VakifBank staff, both in-class and on-the-job. This will sustainably foster the bank's know-how related to en-



Small and medium enterprises in Turkey need energy cost reductions

ergy efficiency finance. Aside from assisting the bank on the supply-side, the GFA team also develops a marketing concept for the energy efficiency financing facility and directly discusses energy efficiency investment potentials with eligible SME clients. renata.garcia@gfa-group.de

Energy performance contracting in Serbia

Since May 2014, GFA has been supporting Serbia to reduce its energy consumption in the public sector through energy performance contracting (EnPC). GFA was awarded this EBRD project after having implemented an assignment focusing on the improvement of the legal framework for EnPC in Serbia and Montenegro. For 18 months, GFA, together with Econoler from Canada and with support from GFA South East Europe from Serbia, will work closely with EBRD and the Ministry of Mining and Energy to break new ground. The EnPC projects will be the first ever that allow the public sector to achieve energy savings without increasing the level of public debt, and the first to create a new market for energy service companies (ESCO). Sub-projects to be developed relate to street lighting, buildings and the water sector. The project is part of the EBRD Western Balkans Regional Energy Efficiency Program (REEP), which includes technical assistance and the provision of financing instruments such as direct and indirect financing facilities for energy efficiency investments in the region.

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Sustainable energy for all in Africa

Access to modern energy services is an important element for reducing poverty. Africa trails behind all other regions in terms of access to and consumption of energy as citizens rely heavily on firewood, charcoal and dung. One quarter of the 2.5 billion people cooking with biomass worldwide live in Africa. Almost 70% of the population in Sub-Saharan Africa is without electricity. The region has the world's highest energy gap while a huge potential for renewable energy supply remains untapped. GFA provides services under the SE4All Technical Assistance Facilities of the European Union for the Western/Central and the Southern/Eastern African regions since December 2013.

The SE4All-Initiative aims at ensuring universal access to modern energy services, doubling the share of renewable energy in the global energy mix, and doubling the global rate of improvement in energy efficiency by 2030. GFA experts support national and regional private and public stakeholders in implementing sector reform policies related to access to energy, energy efficiency and energy supplies. With a focus on rural electrification, they facilitate the implementation of investment projects targeting the SE4All objectives. Their expertise comprises technical assistance in preparing investment projects, mobilizing funds and facilitating partnerships and industrial and technology cooperation.

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African industry hungry for energy

Environmental Governance Reforms in Lebanon Launched

On 16 May 2014, the Support to Reforms – Environmental Governance in Lebanon program was launched by the European Union and the Lebanese Ministry of Environment. GFA Consulting Group, in partnership with Umweltbundesamt Austria and Mott MacDonald, will implement the program over the next three years. It aims at improving the environmental performance of the Lebanese public sector. In particular, the GFA-led consortium will enhance the capacity of the Ministry of Environment to plan and execute environmental policy. This includes, among other activities, the development of new procedures for inspecting and enforcing environmental regulations, and the identification of environmental fiscal instruments. As a result, these measures will support a shift from environmentally harmful activities towards cleaner and more sustainable alternatives.

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Protected Areas Program in Georgia

On 2 April 2014, the Georgian Agency for Protected Areas (APA) and GFA Consulting Group signed the implementation contract for the KfW-funded Support Programme for Protected Areas in the Caucasus in Tbilisi. A GFA-led consortium will implement the 8.2 million Euro program over the next five years. The program seeks to improve the management of four protected areas in the Greater Caucasus mountain ridge. The program will support the protected areas in terms of developing management and business plans, training staff, and improving the physical

infrastructure. Moreover, ecological baseline studies will be carried out and a bio-monitoring system is to be set up in order to provide APA with up-to-date scientific data. The latter is essential for the sustainable management of protected areas. Other than investments in the protected areas themselves, socio-economic development measures in adjacent communities form an integral part of the program. Moreover, adjacent communities will play a key role in regional advisory councils which co-decide on land use planning within and outside of protected areas. As a result, the program will contribute to protect the natural resource base and biodiversity of outstanding ecosystems in Georgia while improving the socio-economic situation of adjacent rural communities.

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Congolese REDD+ Proposal Entered Carbon Fund Pipeline

In April 2014, the Carbon Fund of the Forest Carbon Partnership Facility (FCPF) accepted an Emissions Reductions Program Idea Note (ER-PIN) of the Democratic Republic of Congo (DRC). The Congolese proposal entered the pipeline of the Carbon Fund for performance-based REDD+ payments. At 60 million US dollars in emissions reductions payments, it is the largest initiative considered by the FCPF so far. The Carbon Map and Model Project supported the National REDD+ Coordination Committee in the finalization of the proposal. The project is financed by the International Climate Initiative of the German Ministry for the Environment, Nature, Conservation, Building and Nuclear Safety and is

implemented through KfW, WWF and GFA. The project will continue supporting the ER Program through technical advice for shaping an effective jurisdictional REDD+ crediting mechanism. The ER program covers almost 10 million hectares of forested land and will be the first jurisdictional-scale REDD+ program in Africa.

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German-Moroccan Center of Excellence for Agriculture Inaugurated

On 26 April, 2014 permanent under-secretary of state Peter Bleser of the German Ministry of Food, Agriculture and Consumer Protection (BMEL) and the Moroccan Minister of Agriculture and Deep-Sea Fishing inaugurated the German-Moroccan Center of Excellence for Agriculture in Sidi Slimane, Morocco. Numerous business partners involved in the project and representatives of Moroccan and German agencies and institutions participated in the ceremony. The state-of-the-art location in Sidi Slimane – about 120 km from Rabat, the capital city – presents outstanding conditions for sharing knowledge and practical skills with agricultural professionals. The Center offers trainings on agriculture, particularly crops, potatoes and food plants, as well as business management. As of 2015, animal husbandry related to beef and dairy farming will be added to the curriculum. The project is supported by BMEL's bilateral cooperation program. In its position as General Agent for the program on behalf of the BMEL, GFA is responsible for the development, technical assistance as well as monitoring and evaluation for projects such as the Center of Excellence.

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GFA Consulting Group presently works in more than 90 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.

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