

# ENERGIZED

*Insights from Our Partners in Sustainable Energy Finance*



**IFC**

International  
Finance Corporation  
WORLD BANK GROUP

## ABOUT IFC

IFC, a member of the World Bank Group, is the largest global development institution focused exclusively on the private sector. Working with private enterprises in about 100 countries, we use our capital, expertise, and influence to help eliminate extreme poverty and boost shared prosperity. In FY14, we provided \$22 billion in financing to improve lives in developing countries and tackle the most urgent challenges of development. For more information, visit [www.ifc.org](http://www.ifc.org).



**Industrial Energy  
Efficiency**  
**CHINA**



**Commercial Energy  
Efficiency**  
**SERBIA**



**Energy Efficiency in  
Agro-Processing**  
**RUSSIA**



**Sustainable Energy  
Knowledge-Sharing  
Events**  
**The  
PHILIPPINES**

# FINANCIAL INSTITUTIONS: POWERING SUSTAINABLE GROWTH

The impacts of a changing climate are all around us. Sea levels are rising, oceans are warming, and weather events are more frequent and intense. According to the World Bank 2010 World Development Report on climate change, developing countries will suffer most from the effects of climate change, even as they continue to lead the world in economic growth. This growth is already placing an unprecedented demand on limited resources: it is estimated that global energy demand will increase by 50 percent by 2035, with 85 percent generated in developing countries.

To ensure a sustainable future for generations to come and meet rising demand, business as usual is not an option. We need solutions to help businesses and homeowners manage precious resources more sustainably. Climate-smart projects help our clients reduce their environmental footprint, save costs, and do more with less.

New investments necessary to help mitigate the impacts of climate change will reach at least \$700 billion each year between now and 2030, according to estimates from the World Economic Forum. The public sector must provide important policy leadership, but the private sector will need to provide over 80 percent of total financing.

IFC's Sustainable Energy Finance program works to close the climate finance gap and channel support to climate-smart projects across the world through commercial banks, microfinance institutions, leasing companies, and equity funds.

In resource-intensive manufacturing sectors like cement and textiles production, our partner

banks support process improvements and equipment upgrades that save energy and water. They also help smaller clients, like bakeries and furniture companies, to invest in modernized machinery that cut fuel use and increase output. And because buildings account for almost half of global energy use, our partners help homeowners and commercial property managers lower utility bills through energy-efficient renovations.

In both developed and emerging markets, the need to replace polluting power sources like diesel and coal with clean alternatives is urgent. Our partners finance small hydro, wind, and solar solutions, often for customers without grid access.

Since we introduced sustainable energy finance in 1997, IFC has supported more than 125 financial partners with over 135 climate-smart projects in 37 countries, providing \$4.4 billion in financing. Our investments are coupled with staff training, technical guidance on pipeline and product development, and marketing.

Managing the impacts of climate change and reducing its damage will require an urgent and coordinated effort by public and private sector players, particularly financial institutions. These stories from 13 of our partner banks yield insights that will inform IFC's ongoing investment and advisory work in this important sector. We hope that our financial partners, future clients, donors, and stakeholders will also learn from the journeys our partner banks have taken and the benefits they have achieved with sustainable energy finance.



**Peer Stein, Director**  
Access to Finance Advisory Services



**Ajay Narayanan, Head**  
Sustainability and Climate Business  
Financial Institutions Group



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# TURNING CLIMATE-SMART SOLUTIONS INTO FINANCIAL OPPORTUNITIES

Across the globe, businesses, industries and homeowners are responding to the urgent need to use resources more efficiently to manage the impacts of climate change. This need is critical in developing countries, which will generate most of the world's economic growth, energy use, and greenhouse gas emissions in the coming decades.

Resource efficiency projects vary in size and cost, but are equal in their importance. IFC's partner banks are financing solutions that help small businesses capture cost savings through equipment and process improvements. Green building improvements also help homeowners reduce utility bills. Increasingly, banks are financing resource efficiency solutions in energy-intensive industries like steel and cement, and water-intensive sectors such as textile manufacturing. They are also making energy accessible for off-grid electricity customers and providing alternatives to dirty power sources like diesel and coal.

But there are obstacles, especially for small and medium enterprises (SMEs). While sustainable energy projects pay for themselves through savings, businesses and project developers are often unable to find financing to implement them. Banks are hesitant to loan to energy efficiency projects with SME clients because they tend to be smaller and can carry higher transaction costs. Renewable energy projects can involve

higher up-front investments and typically require longer tenors.

To address this market need and bridge the knowledge gap, IFC provides our partner banks with innovative transaction support combined with technical expertise. This approach helps to mitigate perceived risks, allowing our client banks to enter new market segments and scale up more sustainable energy solutions for end borrowers. We also provide tools that help estimate environmental impacts at the preparation stage of investment and advisory projects, and evaluate results after a project is completed.

Since it introduced sustainable energy finance in 1997, IFC has learned from its financial partners. The 13 client journeys in this collection include lessons in getting the price and tenor right for sustainable energy loans, getting incentives right to motivate lending teams, and tapping branch networks to find new customers. They highlight the importance of sharing sustainable energy knowledge with bank staff and clients, and the value of marketing campaigns in capturing public attention.

These stories have value for IFC investment and advisory staff, for our financial partners and future clients, and for our donors and other external stakeholders. Going forward, we look forward to sharing more stories as we continue this important work.



#### CHINA:

Bank of Beijing finances water efficiency in textiles production.



#### CZECH REPUBLIC:

Ceska Sporitelna supports renewable energy development in the wind, solar PV, and biogas sectors.

#### JORDAN:

Tamweelcom offers sustainable energy microloans to residents and small businesses.



#### SERBIA:

ProCredit Bank Serbia lends to homeowners for energy-efficient building improvements.

# Opening the Tap on Hydropower

**Ameriabank Primes the Pump for Hydropower with Longer-Term Loans**

**Support renewable energy project developers with technical advice and longer-term financing.** With the support of Ameriabank and the renewable energy facility, project developers are able to accurately design and finance successful projects in the mountainous, rocky terrain of southeastern Armenia.

To the towns and villages along the banks of the Arpa, the river that flows through Armenia's Vayots Dzor region is a force of nature. But the waterway also represents a vital force of renewable power for a country without local energy sources. With most large hydropower projects already realized, there is a need to focus on smaller plants in remote rural areas. In such cases, the key risk is completion, not performance.

Seeing an opportunity to provide financing to developers who want to tackle these more challenging projects, Ameriabank cast its net into sustainable energy finance. With integrated investment and advisory support from IFC, Ameriabank turned a specialized financing need into a competitive advantage and launched the first renewable energy facility in Armenia.

Ameriabank offered small hydropower developers affordable loans with an 8.5-year maturity at an 11 percent interest rate. Longer-term financing and reasonable grace periods allow projects to reach physical completion and enable developers to fully finance construction. Drawing on an 8-year, \$15 million credit line from IFC and technical support to build

capacity and identify new opportunities, Ameriabank financed 12 run-of-river small hydropower projects that today generate a total of 124.91 gigawatts annually.

To support small hydropower plant projects, Ameriabank hired an independent engineer and formed a dedicated team focused exclusively on sustainable energy financing. The facility has catalyzed a small hydropower "ecosystem" of engineering, equipment, and funding expertise—a chain of knowledge that is attracting new small renewable energy project developers to the region.

Beyond the financial benefits, Ameriabank gained from the diversification of its client base, differentiation in the marketplace, and knowledge of environmental and social risk-management guidelines that underpin best practice in renewable energy project implementation.

Armenia now has nearly 100 small hydropower plants, with more deals in the pipeline. As favorable policies dovetail with innovation, opportunities for banks in the region continue to grow. Renewable energy potential is bolstered by policies such as a clear feed-in tariff structure, simplified licensing and taxation, and guaranteed purchase of power.





■ Goght hydropower project in southeastern Armenia.

“Project developers in this sector are excellent financing customers; shortly after they complete a project and build up their company and experience, they want to do more and they need long-term financing for that, said Arman Barkhudaryan, Senior Investment Officer and Transaction Leader for Ameriabank. “Usually clients don’t do only one project. These developers like to expand.”

Ameriabank’s total exposure to small renewable energy is now \$36 million, or 10 percent of its total portfolio. Inspired by its success with financing hydropower plants, Ameriabank is exploring new opportunities in sustainable energy finance and plans to expand into green building financing, starting with its own headquarters—the first BREEAM-certified green building project in the country.

# Revitalizing a Post-Conflict Region

## Raiffeisen Bank Pioneers Sustainable Reconstruction after the Balkans War

**Track results by building impact evaluation tools into staff training.** Be prepared to verify end clients' energy and cost savings after upgrades are operational.

Dotting the skyline of Sarajevo, stunning facades are 21st century symbols of resilience in Bosnia and Herzegovina, a rocky region that traces permanent human settlement back to the Neolithic age. The Balkans conflict of the mid-1990s reduced buildings to rubble, but reconstruction efforts have since restored a spirit of optimism to the southeast European country. For families seeking a fresh start, Raiffeisen Bank d.d. Bosna i Hercegovina helped pave the way.

Aiming to build on its market leadership and expand its reach to consumers, Raiffeisen bank supported individual property owners with financing for the construction and refurbishment of their homes. Taking a €15 million credit line from IFC as well as a €350,000 advisory services grant, Raiffeisen bank became the first bank in Bosnia and Herzegovina to offer energy efficiency loans for private individuals.

“Since this was the first loan agreement with an energy efficiency component, numerous activities relating to the creation and placement of the funds into the market were taken,” said Beatriz Chambel-Schneider, Manager of Financial Institutions, Sovereign Strategic Clients and Client Management for Raiffeisen Bank International.

“The main obstacle that we faced was training officers throughout the branches and explaining the key concepts behind energy efficiency loans,” said Schneider. In total, 169 loan officers from different branches were trained and provided with a simple tool for data collection, which consisted of a spreadsheet listing the energy efficiency measures for family houses and apartments that were eligible for bank financing.

The idea was brand new, and it could not have come at a more crucial moment for Bosnia and Herzegovina. Homeowners urgently needed mortgage financing to rebuild their residences. During the war, more than 30 percent of residential buildings were destroyed and over 2 million people were forced to leave their homes.

Most customers needed improvements to their home's windows and insulation or modernized heating-cooling systems. They used Raiffeisen's financing to upgrade old boilers, replace coal-burning furnaces with gas lines, and swap thermostats for smart meters. As a result of the bank's mortgage and energy efficiency financing package, homes were more affordable and cost less to maintain.

But there were bumps along the road to pioneering a new market. The bank



■ Raiffeisen Bank d.d. Bosna i Hercegovina was the first bank in the country to offer consumer loans for energy-saving home refurbishments.

did not train loan officers to collect data on energy used before and after improvements, information that is critical for valid technical, financial, and environmental evaluations of these projects. Initial results had to be analyzed the old-fashioned way, using financial models and anecdotes from interviews with a sampling of borrowers. The bank later introduced a more elegant solution: a web platform that monitors compliance with eligibility guidelines, tracks reporting on energy efficiency loan disbursements, and supports the collection of data on money and energy saved as a result of a client's investment.

When it took the bold step of combining energy efficiency finance with home mortgages in 2006, Raiffeisen bank was betting that the product would make sense to a population still recovering from conflict. Project results quickly confirmed its hunch. The bank anticipated disbursing the credit line over three years, but it was fully utilized in less than 4 months. A developmental boon for Bosnia and Herzegovina's homeowners turned out to be a very successful value proposition for Raiffeisen bank.

# Pioneering International Best Practice

## Ceska Sporitelna Grows Market Share with Sustainable Energy Finance

**Work with reputable partners that are able to bundle projects and contribute knowledge and ideas.** These partners may be energy project developers, consultants, or energy auditors.

A boom in renewable energy in the Czech Republic, sparked by high feed-in tariffs and other favorable policies, stirred the country's largest bank to pursue a new opportunity. When it entered the market in 2006, Ceska Sporitelna transformed the demand for sustainable energy into the country's first sustainable energy finance program for SMEs. The project produced several other firsts, including the first commercially-financed wind power plant, solar PV, and biogas power plants.

"We started with the idea that there would be a lot of interest in new technology for buildings, but the most attractive area turned out to be renewable energy," said Ladislav Dvorak, clean energy program manager for Ceska Sporitelna. "At the financial level, it was the first time the market had seen the use of a pari-passu risk-sharing facility to finance energy efficiency and renewable energy deals, IFC's innovative input to the arising market." The project also catalyzed capacity among sustainable energy finance players such as energy auditors, climate consulting firms, agricultural associations, and energy service companies.

IFC helped Ceska Sporitelna create new systems to support renewable energy lending and helped design a new

marketing strategy. Ceska Sporitelna went on to develop internal approval procedures for subsequent loans by itself. Supporting Ceska Sporitelna in pipeline development and transaction structuring, the IFC team analyzed potential projects in technologies such as wind, solar PV, landfill and biomass gasification. The process produced nearly 50 commercial projects.

"The most important challenge we tackled," recalls Dvorak, "was to get all the new sustainable energy finance know-how down to the regions, branch offices, and individual loan officers." Ceska Sporitelna attributes its success to the training it provided for loan officers, risk managers, and risk analysts. Ceska Sporitelna also organized local and regional seminars for clients, auditors, and vendors to inform them about sustainable energy finance advantages and financial offerings.

In 2008, Ceska Sporitelna established its Energy Competence Centre, which is responsible for its energy strategy, development of new products, assessment of technologies, and support for detailed portfolio monitoring. Ceska Sporitelna continues to measure success by increasing market share while earning the respect of peers and customers as a corporate citizen.





■ Ceska Sporitelna financed several firsts in the Czech market, including the first commercially-financed wind power plant, solar PV, and biogas power plants.

“A clean energy focus certainly helped us differentiate in the beginning phase,” said Dvorak. Although changing subsidies are making the business less profitable than when it entered the sector in 2006, Ceska

Sporitelna continues to lead the market in renewable energy lending. Thanks to the internal capacity Dvorak and his team created, the bank is ready to finance the next generation of renewable energy technologies.



# Optimizing Industry with Water Efficiency

## Bank of Beijing Pioneers Financing to Plug the Leaks in Water Usage

**Focus expertise at the branch level when developing a loan market for a new product.** Bank of Beijing's water efficiency program requires a comprehensive understanding of bank policy, government regulations, and loan procedure throughout different branches and departments. Management's commitment to promoting green lending has also been very important to the success of the bank's water efficiency program.

Seven years ago, Top Resource Conservation Engineering (TRCE), an energy service company specializing in waste heat recovery and power generation, ran into a wall. Chinese banks were reluctant to enter the emerging energy service company market due to perceived risks, and lack of financing was holding back the growth of enterprises like TRCE. Seeing a competitive advantage in an unmet need, Bank of Beijing aligned with IFC's China Energy Efficiency Program and provided the equivalent of a \$2.5 million, 4-year loan to TRCE to finance new energy efficiency projects.

"Without the support from IFC's China Energy Efficiency Finance Program and the first loan from Bank of Beijing, TRCE could not have grown to manage 29 projects. We could not even think about being the first energy service company in China listed on a Stock Exchange," said Mr. Chen Zuotao, CEO of TRCE.

Bank of Beijing has approved the equivalent of nearly \$270 million in

green loans and is recognized for its pioneering work in sustainable energy finance. Now the bank is applying the same ingenuity to the next environmental frontier: water efficiency.

While China's industries and small businesses are investing in saving energy, they have been slower to embrace water efficiency due to low tariffs, lax enforcement of water quotas, and a lack of awareness about conservation in a country where water costs up to 20 times less than in developed countries.

The mills operating in China's textile sector benefit from cheap water every day. China produces half the world's textiles, but the process behind impressive exports totaling more than \$200 billion per year uses enormous amounts of water. The sector lags behind counterparts in developed countries in the ratio of units produced to water used and in overall water recycling. But with financing and technical guidance from Bank of Beijing and IFC's Water Advisory Program, China's textile mills are using



■ When it signed an agreement with IFC in September 2012, Bank of Beijing became the first lender to water efficiency projects in China.

less water through smart metering, process automation, more efficient dyeing machines, and recycled wastewater.

When it signed an agreement with IFC in September 2012, Bank of Beijing became the first lender to water efficiency projects in China. The initiative is developing \$50 million in water-savings capital investments with mills in textile-producing provinces like Zhejiang, Guangdong, and Shandong. Over 50 projects have already been identified that can save more than 15 million cubic meters of water per year. The bank's managers learn how to reach

savings targets through classroom trainings at branch offices and site visits to local plants.

The program is scaling up. Discussions are underway with more global brands and clean technology equipment vendors to find new areas for collaboration.

If China does not address its stressed water supply, shortages are imminent. Through its top-level commitment to finding solutions in this critical sector, Bank of Beijing is helping to guide China to a more sustainable future.

# Cross-Pollinating for Cleaner Power

**BHD Banks on Relationships with Energy Companies to Grow its Pipeline**

**Leverage the know-how and resources of market partners that can help expand the pipeline of new projects.** BHD bank focused its financing activities in the industrial and hotel sectors and drew on the technical support of energy service providers. This allowed it to work on multiple projects that used different energy-saving technologies.

Caribbean breezes are getting cleaner as sustainable energy gains a foothold in the region. The Dominican Republic's dependence on imported fossil fuels, which suffer from highly volatile prices, has created a bottleneck for foreign direct investment, enterprise development, and industrial competitiveness. Turning the country's need for domestic energy into a competitive advantage, BHD Bank, the second largest private commercial bank in the country, set out to support the development and financing of sustainable energy projects.

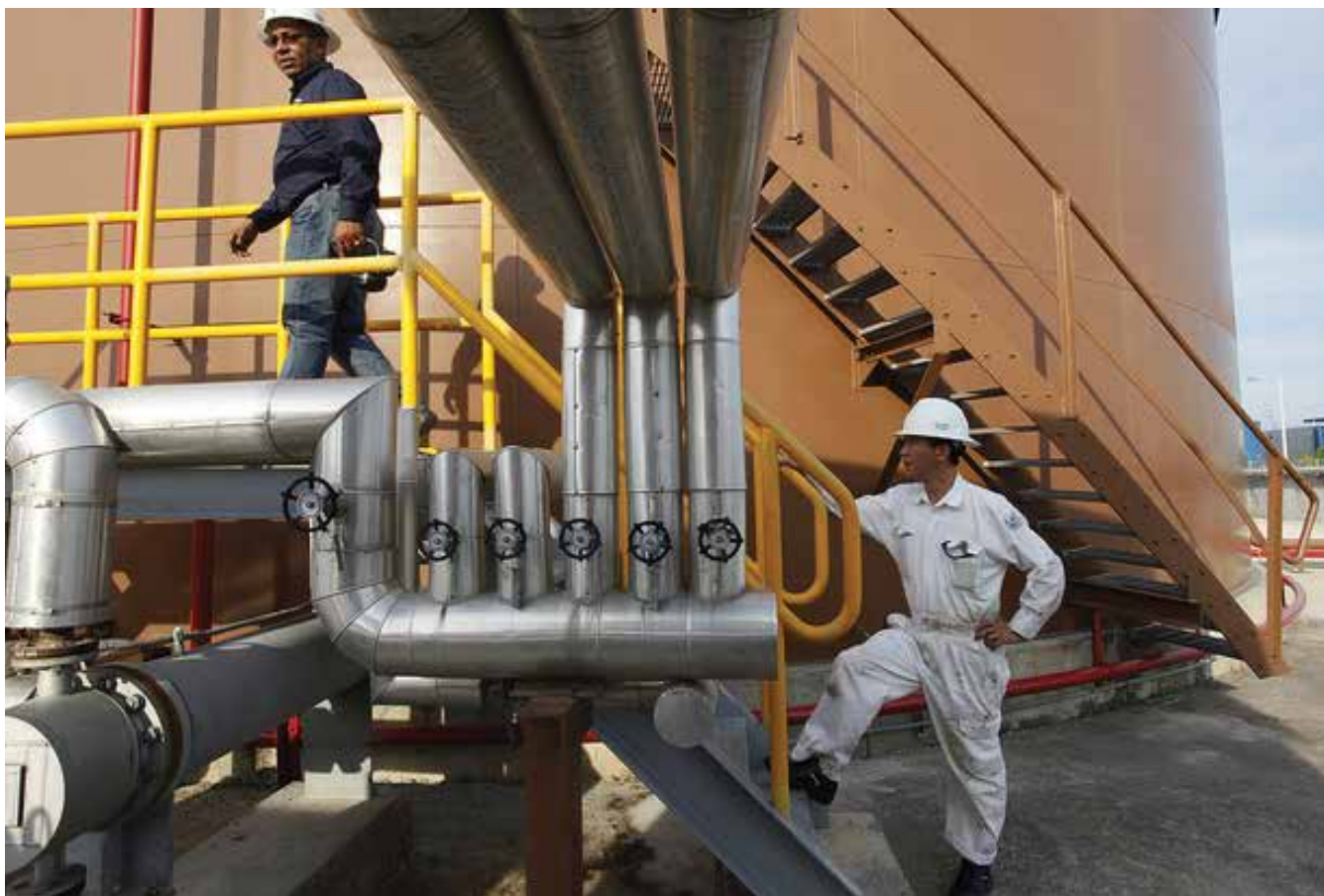
"Entry into the sustainable energy finance market was a good opportunity to combat high energy costs by introducing a product to fulfill a need that had largely been underserved," said Steven Puig, General Manager of BHD Bank. "We have been able to enter this segment and generate a portfolio of sustainable energy deals in short amount of time."

When BHD launched its program in 2010, the Bank looked to IFC for support in building its capacity and project pipeline. IFC provided BHD with a \$20 million line of financing for energy efficiency and small-scale renewable

energy projects. Within three years, BHD assessed nearly 100 sustainable energy project proposals, representing financing requests of over \$50 million. From these, BHD financed nine commercial loans totaling \$21 million.

"At the beginning it was complex to finance natural gas projects because it was a new business for our country," recalled Juan Carlos Pais, Managing Partner of Platergas, a natural gas distributor and client of BHD. "The global knowledge offered by IFC allowed for the support of the projects via financing from BHD." BHD's financing helped Platergas structure and grow its business so successfully that it created an opportunity for an equity investment from a private fund. It also positioned the company as one of the country's main players in the natural gas segment, and enabled its entry into the solar energy market.

To deliver energy solutions to more end users, BHD channeled financing through energy intermediaries such as Platergas, who performed energy audits and identified potential projects that were similar in size to those financed directly by BHD. Generally, projects included



■ To deliver energy solutions to more end users, BHD partners with energy intermediaries that perform energy audits and identify potential projects similar in size to those it finances directly.

natural gas conversions in the hotel and industrial sectors and solar energy installations in the commercial and health sectors.

This approach allowed BHD to leverage the experience and technical expertise of energy intermediaries

and grow its business more quickly: as of September 2013, BHD had a potential new business pipeline of \$45 million. “These commercial relationships will continue to help BHD to identify additional sustainable energy deals,” said Puig.

# Taking a Bite out of the SME Market

Center-invest  
Bolsters Best  
Practice in Banking  
with Energy  
Efficiency Finance

**Grow with your clients.** After Center-invest differentiated its brand from others in the market through sustainable energy finance, it focused on energy improvements for small business operating in energy-intensive market segments such as agriculture, machinery production and construction. As a result, its revenues and market share continue to expand.

When Poultry Farm Taganrogsкая borrowed \$6.3 million for modernization in 2009, it upgraded its operations with contemporary energy-efficient equipment from Germany and Spain. Within five years, the Rostov-based agri-processing plant grew from a Soviet Union era factory into an international company. With financing for energy efficiency improvements from Center-invest, the growing company reduced energy-per-unit costs by an average of 60–70 percent, improved productivity by 5.5 percent, and increased its share of the regional market.

Such impressive returns came as no surprise to Center-invest President Vasily Vysokov. Russia's abundant natural resources had created a relaxed attitude toward energy, and consumers were using too much of it. Anticipating a need for a financial product to help businesses and homeowners reduce energy costs, cut waste, and benefit the environment, Dr. Vysokov oversaw the launch of the market's first sustainable energy finance product.

“Together with our partners from IFC, EBRD, and KfW, we've introduced new ideas,” said Dr. Vysokov. “Now we have a very successful story with energy efficiency products in different sectors—industry, agriculture, services, communal housing, and retail. We multiply our experience across all projects, helping our clients use best practices to buy new equipment and technology, produce competitive goods and services for a global market, or live in a cozy home.”

While most other banks focused on more conventional products like consumer lending and mortgages, Center-invest targeted SMEs with high energy needs in food processing, agriculture, brick and machinery production, leather processing, printing, and construction. Since 2005, Center-invest has provided over \$250 million in energy efficiency financing to over 6,300 clients, with a total project value of \$285 million. Many clients recoup their investments in energy-efficient upgrades in three years or less.





■ By investing in energy efficiency upgrades to its operations, Poultry Farm reduced energy-per-unit costs by an average of 60–70 percent.

“At Center-invest, we realize that market differentiation and expansion of our services into market segments with high potential are key factors to increase our competitiveness and sustain revenue growth. That is why areas such as lending to SMEs and energy efficiency projects are among our highest strategic priorities,” said Sergey Smirnov, member of the Executive Board for Bank Center-invest.

Center-invest’s pioneering energy efficiency products reflect its identity as an innovator. For Center-invest, sustainable banking is a holistic approach to investing in

the long-term economic development of southern Russia and the entrepreneurial spirit of the region.

“More profitable clients make better borrowers,” said Smirnov. “For Center-invest, sustainable banking has been good not only to the SMEs that drive the local economy, but also for the bank itself.” When its clients grow, Center-invest’s reputation grows with them. In 2013, the bank was recognized at the Financial Times/ IFC Sustainable Finance Awards in the Sustainable Bank of the Year category, receiving Special Commendation for Leadership in Eastern Europe.

# Cultivating Clients through Education

**Bank of the  
Philippine Islands  
Boosts Client  
Engagement with  
Learning Events**

**Teach clients how to see the value of sustainable energy finance for themselves.** BPI shares knowledge about the benefits of sustainable energy improvements to SMEs in cities nationwide through road shows and lectures. The most successful learning events should be kept to 30 or fewer participants.

Tourists staying at the Sheridan Beach Resort & Spa enjoy basking in picturesque views, solar-powered streetlights, vegetated rooftops, and other features of the first “green” hotel in the island province of Palawan. But to the eyes of hotel management, the energy bills are a sight to behold. Following an investment of \$115,000 for energy efficiency improvements, the hotel saves \$108,000 in energy costs and an equivalent of 321 tons of carbon dioxide emissions annually.

The Bank of the Philippine Islands (BPI) has collected many client success stories similar to Sheridan’s since partnering with IFC to create its Sustainable Energy Finance program. In hindsight, the program to help SMEs finance renewable energy and energy efficiency projects was a stroke of genius for the oldest financial institution in the Philippines, a country with the highest power costs in Asia.

“Doing sustainable energy finance was difficult at first. It was something new and the idea took us a while to study before we signed up with IFC,” recalls BPI’s Executive Vice President

and Head of the Corporate and Investment Banking Group, Alfonso Salcedo. “BPI has always been known for its innovations, thus, being the first in sustainable energy finance appealed to us.” Salcedo’s skepticism faded when he recognized what the program could do for BPI’s clients. The key was teaching clients how to see those benefits for themselves.

Since bank employees are conduits of information to clients, BPI began by educating front-line staff on the potential of sustainable technologies such as solar photovoltaic panels. As BPI Vice President Bea Marie Guzman observed during an IFC-led study tour, “the site visits were very informative and helpful in understanding our clients’ business operations and inherent risks. These are important when evaluating projects and when speaking with developers, suppliers, and service providers.”

Realizing the value of experiential education, BPI extended the learning events to external stakeholders. It offered Sustainable Energy Finance Master Classes (2009–2012) and Business Talks (2013–present) to help clients understand



■ **BPI passes on knowledge about the benefits of sustainable energy investments through road shows and speaking engagements in cities nationwide.**

the benefits of energy efficiency and renewable energy opportunities.

Since launching its first client forum in 2009, BPI has hosted a total of 26 educational events benefitting over 20,000 SMEs across the Philippines. BPI complements training programs with speaking engagements at energy fora and industry association meetings. It also produces advertisements in major and local newspapers that feature client success stories. These initiatives are part of the BPI sustainable energy information campaign, which is aimed at inspiring upcoming entrepreneurs to follow in the footsteps of BPI's sustainable energy finance clients.

"We found that climate-related events such as Typhoon Yolanda, coupled with the impending power

crisis and threats of power rate hikes, heightened public interest in energy efficiency and renewable energy," said Jo Ann Eala, Vice President and Head of BPI's Specialized Lending Team and Sustainable Energy Finance program.

BPI continues to measure its success by the steady and significant growth of sustainable energy finance loans both in volume and count. By the end of 2013, its portfolio reached the equivalent of \$229 million. But even more important than impressive numbers is recognition from the development community: in 2011, BPI's sustainable energy finance program was selected as one of the 14 winners of the G-20 Finance Challenge awards.

# Putting the Spotlight on Savings

**ProCredit Bank  
Serbia Uses People  
Power to Fuel  
Interest in its  
Sustainable Energy  
Finance Products**

**Streamline systems for staff and clients.** ProCredit Bank Serbia discovered that offering a new loan product required education combined with updated internal systems for loan tracking and for recording costs and energy saved. It developed a process to easily capture important client information in one sheet, making Business Advisers in its branch offices very happy.

What started as a smart move for Serbia's small and medium enterprises also doubles as a competitive advantage for the entire country. In its push to join the EU, the Serbian government aims to increase energy efficiency measures as it anticipates regulatory changes. An abundance of potential savings and untapped energy, combined with widespread demand for upgrading outdated buildings and equipment, make sustainable energy finance a win-win for Serbia's businesses and for its citizens.

A first mover in its market, ProCredit Bank Serbia first launched its energy efficiency finance program in 2007 with a €15 million credit line from IFC for installation of energy efficiency measures such as fuel switching and building improvements. Initially a strategy for expanding loan offerings by bundling an energy efficiency product with its housing finance package, ProCredit Bank Serbia's sustainable energy finance program is now transitioning from residential to commercial energy efficiency loans.

For businesses, energy efficiency funds are cheaper than standard loans and

energy-efficient equipment is a continuing necessity. Customers now include SMEs and production plants of all sizes that need financing for plant equipment, vehicles, construction, and agricultural machinery.

Sustainable energy finance is also a natural fit for a financial institution at the forefront of corporate citizenship.

"Environmental awareness is a ProCredit Bank Serbia core value," said Jasminka Grabovac, an Environmental Senior Specialist with ProCredit Bank Serbia. "We are mindful of our energy consumption and footprint. In fact, many Business Advisers drive hybrid cars as part of ongoing marketing and awareness raising effort!"

Using the power of its people to spread knowledge about sustainable energy benefits, the bank produced TV commercials and outdoor publicity campaigns. It took its sustainability message into the city square, local green markets, shopping malls, and energy-efficient equipment distributors.

"We trained our loan officers in 60 branch offices, created a new system to promote green lending, and created new





■ Many ProCredit Bank Serbia staff drive hybrid cars to support the bank's energy efficiency public awareness campaign.

marketing and advertising campaigns for the product," said Grabovac.

Not all of its goals were market focused. ProCredit Bank Serbia found that offering a different product required updated internal systems for loan tracking and measuring the effect of renovations on clients' energy bills. The bank needed this data to demonstrate to management and new customers that sustainable energy finance investments were commercially viable.

In response, ProCredit Bank Serbia developed a new process for green lending that enabled Business Advisers in 60 offices to capture client financing and energy details in one page that was later entered into a centralized database.

"Be precise about what you want so that monitoring is easy," said Nebojsa Arsenijevic, Operations Officer with the Balkans Renewable Energy Program.

"Besides money loaned, staff should learn how to track carbon dioxide emissions reduced and energy saved. This requires some additional training, but it's not so complicated." Looking ahead, IFC will help its partner banks capture data and monitor financial and energy savings results for clients with a straightforward, web-based tool.

Automated systems, creative marketing campaigns, and well-trained teams are boosting growth into new market segments. The bank is setting up its first water efficiency projects with industrial and agricultural clients and is moving into the renewable energy sector.

The hard work is paying off just in time: when the southern Europe regional energy market opens up to private competition in early 2015, ProCredit Bank Serbia and its clients are poised for success.



# Scaling up for a Low-Carbon Future

## Industrial Bank Harnesses the Power of Partnering with Market Players

**Accelerate the learning curve for staff.** IFC industry and environmental specialists appraised new investments alongside Industrial Bank staff that had almost no experience in lending to borrowers with minimal credit history. Industrial Bank internalized the process and set up its own sustainable energy department in 2009, training staff in all 37 branches on green finance services.

A Chinese adage says that within every crisis is an opportunity. Foreseeing an energy shortfall and an expanding economy, Industrial Bank, headquartered in China's Fujian Province, carved out a new opportunity. Becoming the first Chinese commercial bank to offer tailor-made energy efficiency financing products, Industrial Bank established itself as a pioneer in green finance and a catalyst for sustainable development in China.

"At the beginning, we saw energy efficiency financing as a constraint," recalls Li Renjie, president of Industrial Bank. "But increasingly we felt that these constraints actually presented a business opportunity to build a competitive advantage." With the help of IFC's China Energy Efficiency Finance Program, Industrial Bank ventured into China's nascent energy efficiency and renewable energy market, which was essentially untouched by the private sector at the time.

Working with energy efficiency equipment vendors and energy service companies, the program helped clients invest in upgrades to power delivery systems. It provided expertise on reducing energy

consumption in sectors from cement and steel production to micro-electronics manufacturing. Suppliers stepped in with smarter equipment like waste-heat generators and steam turbines, while commercial banks helped to finance the new equipment. The program's approach has paid dividends for Industrial Bank and its clients.

For example, Sichuan Dazhou Steel Corporation, the largest industrial company in its home city, was in the process of restructuring its production lines so that it could become a key coking base for southwest China. Its management knew that doing so would require installing new technologies to lower electricity costs but was unsure how to finance them. Encouraged by IFC's risk-sharing facility and advisory services, Industrial Bank gave the company a three-year, \$2.3 million-equivalent local currency loan for new energy-saving equipment that dramatically reduced the company's costs and carbon emissions.

"Industrial Bank is happy to offer a market-based financing model to help China save energy and improve its



■ Sichuan Dazhou Steel Corporation installed new equipment that uses blast furnace gas to generate 28 gigawatts of power annually.

environment,” says Renjie. “This marks our first step towards building our bank into one that is committed to sustainable development.”

Industrial Bank has disbursed the equivalent of \$54 billion to climate-smart projects, but is not content to

rest on its laurels and continues to innovate in green finance products and services. Along with traditional loans, it offers short-term lending options, waste emission financing services, and energy contract projects for energy service companies.

# Building Resilience into a Fragile Economy

**Banque Libano-Francaise Gives a Sustainable Advantage to SMEs in a Post-Conflict Society**

**Motivate staff by providing targets and other incentives to create excitement and drive scale.** Create a core team to focus on tapping sustainable energy finance opportunities in the market.

As rapid construction of high-rises transforms Beirut into a modern metropolis, the Ottoman and colonial French-style buildings that remain offer a glimpse into Lebanon's rich history. But after years of civil war, the scenic Mediterranean city is preserving its identity while reinventing itself for the future with the help of Banque Libano-Française (BLF), one of the most active banks in post-war reconstruction efforts.

With sustainable energy lending, BLF offers Lebanon's small businesses and homeowners a profitable way to extend the life of buildings, free up revenue from burdensome energy costs, and create new jobs.

"BLF has a clear environmental sustainability strategy based on active participation in policy shaping, developing the green lending business, and promoting a sustainable energy finance model for the bank and its clients," said Maurice Iskandar, Head of the International Division at BLF.

The strategy reflects BLF's commitment to the environment and the economy, and reaches clients in commercial and non-commercial sectors.

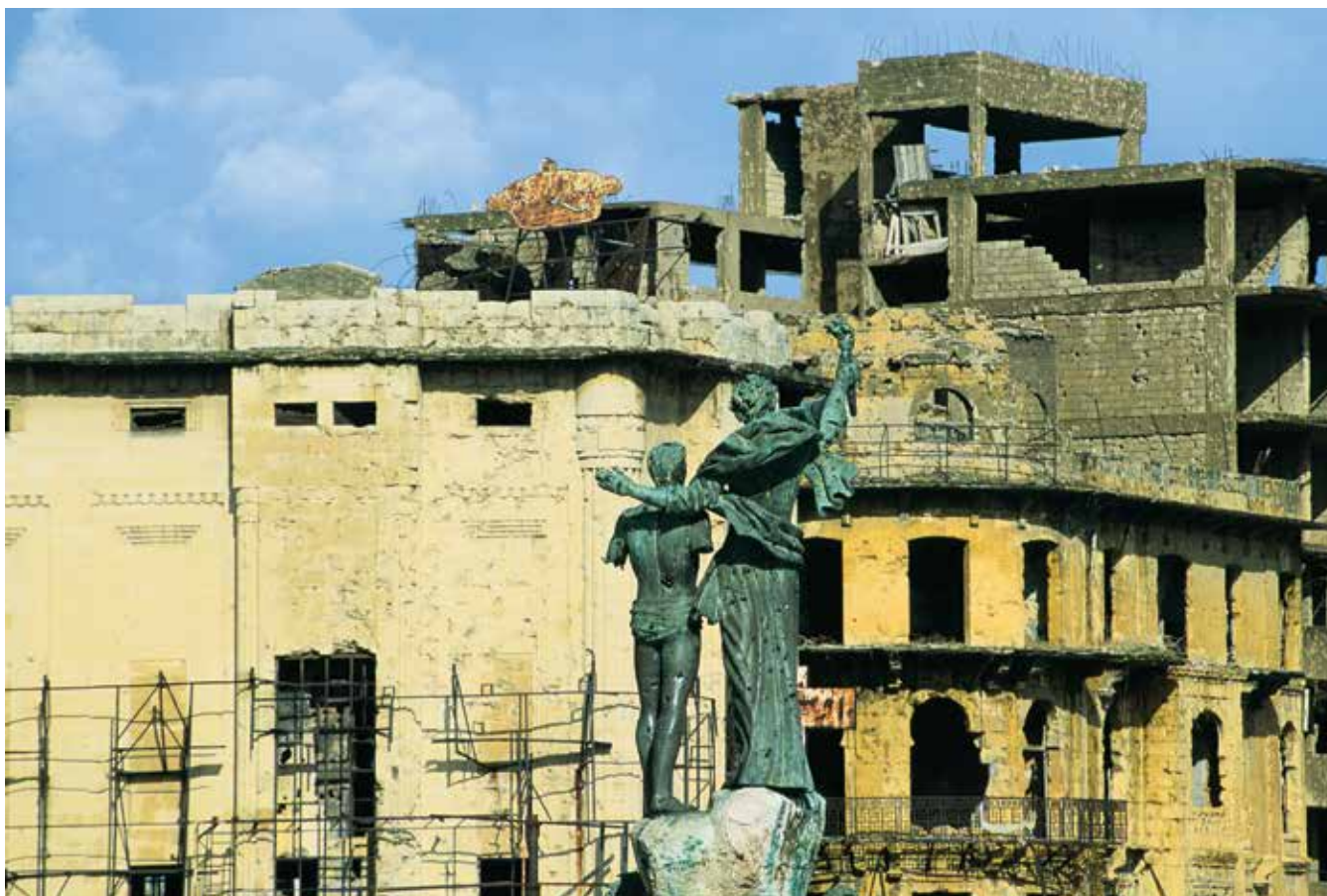
Sagesse High School in Beirut faced daunting electricity bills from diesel

generators due to increasing levels of blackouts from the state electricity supplier. Seeking a long-term strategy to conserve energy, Sagesse implemented major energy conservation measures. The investment yielded 50 percent savings in annual energy costs. The school was so pleased with the results that it selected BLF as its lending partner for a future expansion.

Like Sagesse, Arab Printing Press, a Beirut print house with 130 workers, faced expensive and unpredictable energy service. BLF's long-standing client was not fully aware of energy-efficient solutions available, so BLF partnered with consultants to conduct an energy audit of Arab Printing Press' facility. Discovering the potential benefits, Arab Printing Press borrowed \$500,000 from BLF for energy efficiency improvements, cut costs by 35 percent, and expects to repay the investment in less than two years.

"The (BLF initiative) gave us great insights into our operational activities, showing us how to reduce our energy bill by implementing energy saving measures that are good for us and good for the environment," said CEO Elie Raphael.

The IFC team provided technical expertise and trained BLF staff



■ Banque Libano-Française (BLF) is one of Lebanon's most active banks in post-war reconstruction efforts.

to identify entrepreneurs ready to switch to modern technologies. As Iskandar explains it, sustainable energy lending made it possible for BLF to advance its sustainability strategy and “better serve our clients.” Since entering the sustainable energy finance sector, BLF has provided 10 loans to Lebanese businesses totaling over \$30 million.

BLF was the first commercial bank in the region to participate in IFC's sustainable energy finance program and learned from early mistakes. The bank trained over 100 staff but initially did not set targets, so loan officers

had no incentive to promote sustainable energy finance even though they understood the commercial rationale. However, due to the efforts of a core team, three out of five energy audits led to a financed project, and several others were booked.

Going forward, BLF will appoint an internal manager and dedicate more staff to its sustainable energy practice. Two years after introducing sustainable energy finance as part of its product offering, BLF views it as a valid business proposition, and can back its vision with convincing numbers.



# Sustaining Entrepreneurs for the Long Haul

## Transcapitalbank Helps SMEs Go the Distance with Green Financing

**Leverage your network.** Transcapitalbank's national reach and substantial investment of time, staff, and resources magnified the potential of sustainable energy finance.

Russia's small business owners consider saving money a top priority, while the country's cities see mitigating climate change as a top priority. Looking at these micro and macroeconomic objectives side-by-side, Transcapitalbank saw a win-win opportunity for its national clientele with sustainable energy finance.

"Opportunities exist and these opportunities are ample," said Marina Domareva, Transcapitalbank's VP for sustainable energy finance. "But for implementation of such projects the existing long-term financing in the market is insufficient, and short-term loans cannot be used for energy efficiency projects."

With loans in 2011 and again in 2013, IFC supported Transcapitalbank with close to \$70 million to help finance energy efficiency improvements for SMEs across Russia. IFC also mobilized a \$25 million loan earmarked for energy-efficient SME projects from International Investment Bank (IIB). As a result of this support, Transcapitalbank is able to offer longer-term financing for energy efficiency projects.

"Transcapital Bank always strives to create opportunities for its clients," said Olga Gryadovaya, Chairperson of the Management Board of Transcapitalbank. Local business owners are tapping these opportunities in sectors ranging from

car engines and construction materials to wheat production. Investing in energy-efficient technologies helps business owners reduce risks connected with rising energy costs by modernizing power equipment such as pumps, boilers, and processing equipment.

Transcapitalbank's portfolio includes 42 energy efficiency projects, and its clients can expect to reduce \$15.9 million in energy costs and 107,810 tons of carbon dioxide emissions annually.

The national footprint of Transcapitalbank, whose 17 branches and 59 local offices cover nearly three-fourths of the Russian Federation, presented possibilities and challenges for a sustainable energy loan product. How do you create space for it among more established offerings, and how do you communicate the benefits to so many different branches?

The Transcapitalbank team and IFC responded with a hands-on approach. "We actively reached out to branches, offering to work with their clientele on developing energy efficiency projects," said Gregory Kazaryan, Operations Officer in IFC's Moscow office.

Loan officers started by spreading the message through client lunches and presentations at branch locations. These typically generated up to twenty





■ Transcapital client, Agroland, reduced its energy costs when it replaced a conventional gas boiler with one that runs on buckwheat and grain shells.

potential projects in various stages of readiness. An average of five advanced to the bank's credit committee, and one to three projects per branch were approved for financing.

To help loan officers close the deal, Transcapitalbank followed up with training and promotional materials. Using an easily identifiable name such as "energy efficient credit" helped the product find its place in the market, as did a dedicated page on the bank's website

for posting product presentations and showcasing client success stories.

"Our top management is paying a great deal of attention to development of this product in ways that will appeal to current clients, and potentially new clients, like project developers and energy service companies," says Domareva. To stay ahead of the competition, Transcapitalbank is always ready to collaborate with other market players.

# Growing Loyalty from the Inside Out

**BDO Unibank Sparks the Sustainable Energy Finance Market from its Back Yard**

**Change the mindset of bank staff through intensive training and knowledge sharing.** BDO Unibank created a stand-alone unit dedicated to educating employees about opportunities within sustainable energy finance. By end of 2013, its loan portfolio reached \$112 million.

When Typhoon Yolanda struck Southeast Asia on November 8, 2013, it became the deadliest Philippine typhoon on record. As climate change escalates the intensity and frequency of storms, island nations are racing to prepare and adapt. Fortunately, the largest commercial bank in the Philippines has a promising response to the country's greatest threat. In 2010, BDO Unibank established a sustainable energy finance program to help its clients invest in climate-resilient solutions.

"Rising power costs and climate change highlight an urgent need for businesses to be engaged in sustainable development," said Walter Wassmer, Senior Executive Vice President of BDO. "As the country's leading bank, our decisions can impact society for the better.

"Industry giants and leaders should take this one step further and set the standard for investments in energy efficiency and renewable energy technologies," said Wassmer. "Every business can be more efficient and green. We are sharing IFC's global expertise and knowledge to our clients to help them make informed decisions that will

increase their bottom lines and social responsibility."

With 733 branches nationwide, 1,300 ATMs, and over 4 million customers, BDO's sustainability message has an extensive reach that starts with top-level leaders.

"We began by getting the buy-in of the Board of Directors," said Edward G. Wenceslao, Senior Vice President and Head of BDO's Wholesale Lending and International Desk. "The fact that IFC has a Board seat paved the way for support of the sustainable energy finance program to be cascaded down to management as an advocacy."

BDO created a separate unit to focus on the program's implementation. To bolster internal capacity, the bank is training employees to appreciate the spectrum of sustainable energy opportunities from building improvements and modernization of manufacturing equipment to renewable energy technologies such as mini-hydro and biomass power plants.

"Training bank personnel to embrace sustainable energy finance opportunities is the key to moving forward," said Eunjoo Park-Minc, Senior Advisor, Multilaterals and ECA Desk and Head,



■ BDO created a separate unit under its Institutional Banking Group to focus on sustainable energy finance training across a range of sectors, such as leasing, pictured here.

BDO Sustainable Energy Finance Program. “Creating market awareness begins in our own backyard.”

“We are educating our account officers about the benefits of sustainable energy finance, such as its relatively short payback period (for energy efficiency projects) and improved operational efficiency so they can become sustainable energy finance ambassadors to their clients,” said Park-Minc. Most clients are convinced of the need to upgrade to energy-efficient equipment after walk-through energy audits.

As local companies struggle with the highest power costs in Asia, BDO Unibank aims to build a diversified sustainable energy project portfolio that cuts across all industries.

“Energy efficiency opportunities are everywhere,” said Park-Minc. “Eventually, I would like to see the public and the government work together to develop and promote sustainable energy. That to me will be my main indicator for success.”

# Maximizing Profits for Micro-Enterprise

## Tamweelcom Follows its Clients to a New Market Opportunity

**Listen to your customers.** Tamweelcom's borrowers needed a solar water heater loan that could be repaid in easy installments, while helping them to manage electricity bills. The bank redesigned its financing product to meet their needs by aligning payments as closely as possible with actual energy savings for a maximum period of 3 years.

When the largest microcredit company in Jordan introduced the environment to its mission in 2007, its objective was to include profits, and the planet, in its bottom line. What it did not expect was that market forces would play a defining, yet unpredictable, part in reaching its goal.

A leader in microfinance, Tamweelcom pioneered an affordable financing plan for solar water heaters in 2007. The product's longer payment period made affordable energy a reality for low-income residential customers and micro-enterprise clients, market segments that were generally underserved in a country whose energy needs were outpacing supply.

But soon after Tamweelcom launched the solar loan, the government introduced energy subsidies that reduced the cost of electricity and adversely affected customer perception of the product's affordability. One year later, the government removed those subsidies—forcing customers to think once more about ways to reduce electricity costs and find alternatives to consumption.

To help its customers respond to these macro-economic shifts, Tamweelcom

partnered with IFC in 2010 and developed a new approach for its product. With a \$3 million credit line combined with advisory services for capacity building, Tamweelcom successfully relaunched the solar water heater product within a year, becoming the first in the market to offer a repayment plan aligned with a customer's electricity bills.

"Before Tamweelcom, no one had introduced a financing product based on easy installments, but now things are different," said Ziad Al-Refai, Executive Director of Tamweelcom. Drawing on guidance from IFC, Tamweelcom designed a financing system that delivered energy and cost savings to a much larger market than it initially anticipated.

Tamweelcom's approach was simple for customers, yet ground-breaking for the market at the time. The new payment formula was based on electricity consumption, with installments set as close to actual energy savings as possible for a maximum period of 3 years.

Tamweelcom launched its product as a pilot and demand soon followed. It adjusted its pricing and expanded its





■ Tamweelcom's solar water heater loan made affordable energy a reality for low-income residential customers and micro-enterprise clients, market segments that are generally underserved in Jordan.

prototype to include products from global vendors. The revamped product was a success, and the company is expanding into other sustainable energy finance offerings.

"IFC radically simplified the formula for financing solar," said Al-Refai. "It has been a very positive experience for Tamweelcom to enter the climate financing sector and still work with its target market and network of lower-income clients," said Al-Refai.

Tamweelcom's solar water heater business continues to grow steadily, attesting to the success of the financing

approach and the commercial viability of the technology. Since introducing the product, the bank has seen its portfolio of disbursed loans grow from 17 loans with a value of about \$14,000, to nearly 1,000 loans ranging from \$500 to \$1,400.

As prices for other energy-saving equipment come down, Tamweelcom plans to expand its offering of products that have short payback periods. Going forward, the company will continue to include profits, and the planet, in its mission.



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## Cover Photo:

Russian grain processor, Agroland, captured cost and energy savings when it replaced conventional machinery with equipment that runs on buckwheat and grain shells.

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