

SMALL AND MEDIUM ENTERPRISES: ENERGY EFFICIENCY KNOWLEDGE SHARING

VOLUME 7 | ISSUE 4 | DECEMBER 2016

SAMEEEKSHA

www.sameeksha.org

NEWSLETTER

Inside...

- International experience in financing energy efficiency in SME sector: challenges and solutions
- SIDBI schemes and products to finance energy efficiency in SMEs
- YES BANK schemes and products to finance energy efficiency in SMEs



VISION

SAMEEEKSHA envisages a robust and competitive SME sector built on strong foundations of knowledge and capabilities in the development, application, and promotion of energy-efficient and environment-friendly technologies.



A PLATFORM FOR PROMOTING ENERGY EFFICIENCY IN SMEs

IN THIS ISSUE...

This issue has, as its theme, the financing of energy efficiency (EE) in the SME sector. Major challenges continue to be faced by SMEs in raising loans for adoption of EE technologies (EETs) and best operating practices (BOP). These challenges are non-financial (low awareness about EETs and BOPs; non-availability of customized technological options at the local level; lack of skilled factory-floor personnel and/or LSPs; and so on) as well as financial (high up-front costs of EETs in many cases; lack of capacities among SMEs to meet the norms/requirements of banks in regard to credit history, accounting practices, documentation, and so on). On the other hand, banks and financial institutions too face challenges in evaluating and approving EE loan applications from SMEs (overcoming the 'risks' associated with financing future energy and cost savings; lack of technical expertise to evaluate EETs/BOPs; the relatively small ticket size of EE loans to SMEs; and so on) and in monitoring the EE loans after they are sanctioned.

In order to throw more light on the challenges faced by both sides, and on the solutions that are being devised and implemented to overcome them, this issue features interviews with senior functionaries from two Indian financial institutions that are playing a prominent role in financing EE in the Indian SME sector through innovative schemes and financial products: Small Industries Development Bank of India (SIDBI), and YES BANK. Also presented in this issue are highlights of a few international initiatives to finance EE among SMEs, which could provide useful insights and lessons for Indian stakeholders.

SAMEEEKSHA Secretariat



INTERNATIONAL EXPERIENCE IN FINANCING ENERGY EFFICIENCY IN SME SECTOR: CHALLENGES AND SOLUTIONS

The financing of energy efficiency (EE) in the SME sector presents many barriers and challenges: to the SME entrepreneurs who wish to adopt EE technologies (EETs) and seek loans to support the adoption process, as well as to the banks and financial institutions (FIs) that have to appraise the EE loan applications and monitor the loans post-sanction. A few international initiatives aimed at financing EE among SMEs are highlighted below. The experiences and lessons from these initiatives could provide useful insights for Indian stakeholders.

Sustainable Energy Financing Facilities (SEFFs) of the European Bank for Reconstruction and Development (EBRD)

The European Bank for Reconstruction and Development (EBRD) extends credit lines to local FIs through Sustainable Energy Financing Facilities (SEFFs). The FIs on-lend the funds to SMEs and other clientele for EE and RE projects. Each SEFF is implemented along two concurrent tracks:

- FIs learn how to assess the feasibility of EE and RE projects and how to develop suitable financial products
- Clients receive access to a new line of financial products and learn how sustainable energy investments can improve productivity and increase profits.

Since launching the first SEFF in Bulgaria in 2004, EBRD is implementing SEFFs in 15 countries including Armenia, Georgia, Hungary, Romania, Turkey and Slovak Republic.

[More information at <http://www.ebrd.com/downloads/research/factsheets/seff.pdf>]

IFC's Hungary Energy Efficiency Co-Financing Programme

The GEF-funded Hungary Energy Efficiency Co-Financing Programme (HEECP) was implemented

TurSEFF

The SEFF project implemented by EBRD in Turkey, called Turkey Sustainable Energy Finance Facility (TurSEFF), has successfully gone into its third phase. Some highlights:

- Borrowers are eligible for loans up to EUR 5 million to implement projects that include a substantial EE component.
- TurSEFF includes a comprehensive technical assistance package. A team of local and international experts provide support to help prospective borrowers identify and develop sustainable energy projects, and prepare successful loan applications.
- The team of experts also trains loan officers at participating banks in the assessment of sustainable large and small-scale energy investments.
- Since its launch in 2010, TurSEFF has seen over EUR 465 million invested in over 870 sustainable energy projects. These are avoiding over 1.98 million tonnes of CO₂ emissions per year.

[More information at <http://www.turseff.org>]

by the World Bank and executed by International Finance Corporation (IFC). The objective of HECEP was to reduce the credit risk and transaction costs of EE financing. The primary financing tool under the programme was partial risk guarantee to the FIs. Because only partial guarantees were used and project financing derived from the FIs' own funds, the FIs had incentives to originate sound transactions and pursue all collection remedies. The guarantees were originally targeted at a variety of clients of the FIs. It turned out, however, that the preferred borrowers were project developers: ESCOs, leasing companies, and SMEs involved in delivering EE equipment, projects, and services. By using the guarantees for





developing new financial products, FIs were able to avoid the transaction costs of having to deal with a multitude of small projects proposed by individual borrowers. This also eased the problem of collateral, and of securing the savings ('negative cash') stream associated with EE projects by using energy supply agreements between project developers and end-users or performance guarantees provided by the ESCOs.

[More information at <https://www.thegef.org/project/energy-efficiency-co-financing-programme>]

World Bank Loan Financing to the Energy Efficiency Project in China

The World Bank provided a loan to Minsheng Bank in China for lending to industrial enterprises—particularly SMEs— or energy service companies (ESCOs) for EE investments. The following major categories of EE projects were eligible for financing under the project:

- Replacement of inefficient industrial technologies with energy saving technologies such as EE industrial boilers, kilns, and heat exchange systems
- Recovery and utilization of by-product gas, waste heat and pressure
- Installation of highly efficient mechanical and electrical equipment, including motors, pumps, heating and ventilation equipment
- Industrial system optimization to reduce energy use

[More information at <http://www.worldbank.org/projects/P084874?lang=en&tab=overview>]

GEF-World Bank Energy Efficiency Project in Poland

This project includes two modes of financing EE projects: partial risk guarantee and capital grant. A partial guarantee facility was established with GEF funds as a risk-sharing mechanism to provide commercial banks partial coverage of risk exposure against loans made for EE projects for buildings in Poland. A percentage of the GEF grant was used for

providing capital grant for EE projects consisting of 'high cost measures', i. e., measures with paybacks in excess of 6 years. A flat partial grant, equivalent to 30% of total project cost, is payable to an ESCO upon completion of the project. Higher-payback projects (over 10 years) require end-user co-financing in order to make the project economically attractive for ESCO and lenders.

[More information at <http://documents.worldbank.org/curated/en/528141468776041640/Poland-Krakow-Energy-Efficiency-GEF-Project>]

Key lessons from international experience

- Technical experts play an important role in identification, evaluation and implementation of EE loan applications received under different credit lines (CLs).
- Most of the international CLs target retrofitting of existing technology with EE technology in SMEs; they are not greenfield projects. Exceptions are made mainly for technology demonstration.
- Financing for expansion projects is restricted. For instance, TurSEFF procedures say:

If new production capacity resulting from the proposed investment exceeds twice the pre-investment production capacity, the amount of loan eligible for financing from the Facility Loan will be limited as follows:

(2 x pre-investment production capacity)	x Investment Cost of the Project
Post-investment production capacity	

This means, for example, that for a project leading to an increase in production by 500%, only 40% of the costs are eligible.

- International CLs for EE introduce eligibility criteria like payback period or IRR, which correlate cost of investment and energy savings.
- Many of the CLs mention typical EE technologies; however, the listing is only indicative. The SMEs have to demonstrate that they meet the eligibility criteria. ●●●



SIDBI SCHEMES AND PRODUCTS TO FINANCE ENERGY EFFICIENCY IN SMEs



The Small Industries Development Bank of India (SIDBI) is India's main financial institution for the development of the SME sector. **Mr Ajay K Kapur**, Deputy Managing Director, SME Development Centre, SIDBI, Mumbai, elaborates on SIDBI's initiatives to support SMEs in adopting EE technologies.

Q: Please highlight some of your major products to promote the financing of EE among SMEs?

SIDBI is the apex financial institution for the promotion, financing and development of micro, small & medium enterprises (MSMEs) and for coordination of the functions of the institutions engaged in similar activities in India. SIDBI offers innovative financing products, and extends technical support and handholding in implementing EE projects through various programmes and schemes like 4E solutions, multilateral line of credits for EE projects, promoting ESCOs by way of providing financial assistance and risk-sharing mechanism. These schemes and programmes have supported Indian MSMEs to enhance competitiveness, improve the bottom line, and achieve organic growth while maintaining sustainability development goals. Some of the SIDBI schemes and programmes are:

End-to-End Energy Efficiency (4 E) Solutions Programme

SIDBI is promoting End-to-End-Energy-Efficiency Solutions (4E) programme to provide technical backstopping and support MSME clients. The 4E programme helps MSMEs improve bottom line through energy savings, by availing the services of Technical Consultants at a reasonable cost with assurance on the quality of services and assured savings. A back-to-back financing product support is provided with the help of the World Bank to provide loans for EE projects to MSMEs. Under the scheme, term loans are provided at concessional interest rates and on softer terms. The 4E programme is



being implemented by SIDBI in association with India SME Technology Services Limited (ISTSL), an associate concern of SIDBI.

JICA Line of Credit for Energy Efficiency Projects

Through a JICA line of credit, SIDBI promoted energy saving in MSMEs in India, by providing concessional financial assistance. An innovative approach was adopted, based on an 'Energy Efficient Equipment List'.

Scheme for Assistance to Energy Service Companies (ESCOs)

In another EE promotional initiative, SIDBI has extended financial assistance to ESCOs in the MSME sector for implementing EE projects through Performance Guarantee Contract. The financial assistance under the scheme is provided with concessional interest rate and at soft terms under





'SIDBI Make in India Soft Loan Fund' (SMILE) scheme, exclusively developed for MSMEs.

Partial Risk Sharing Facility (PRSF) for Energy Efficiency

SIDBI is promoting Partial Risk Sharing Facility (PRSF) project along with Energy Efficiency Services Limited (EESL) to transform the EE market in India, particularly through Energy Saving Performance Contracting (ESPC) delivered through ESCOs. The project intends to provide partial risk cover to banks/FIs for the loans given by them to ESCO-implemented EE projects. A dedicated project website (<http://prsf.sidbi.in>) is available for information dissemination about the PRSF project.

Q: What are the major challenges faced by banks in providing EE loans to SMEs?

From our long experience on implementing EE loans products, SIDBI has come across numerous challenges; but suitable strategies have helped us in overcoming or reducing the degree of the challenges. A few major challenges are:

- Lack of awareness/information on EE best practices and EE technologies among MSMEs
- Lack of sufficient expertise in banks to assess EE loans
- Lack of in-house engineering and technical manpower to implement EE projects at MSMEs
- Lack of a sufficient number of projects in this (EE) space to make banks look at this sector as an attractive business domain.

Generally, EE financing requires cash flow-based financing, which is still not very popular with banks which predominantly prefer asset-based financing.

Q: What can be done to overcome these challenges?

SIDBI has overcome the challenges by developing suitable strategies and products such as:

- Awareness & capacity building in EE for all the stakeholders: MSMEs, industrial associations, technology service providers, original equipment manufacturers, lead banking and financial institutions, other financial intermediaries, etc.



- Information dissemination on EE through case studies, video documentaries, road shows, etc.
- Handholding support for implementation of EE measures in terms of retrofits or new projects, to overcome the limited institutional, technical and financial capacities of the MSMEs.
- Capacity building and training of factory-floor personnel to implement and monitor the EE projects/technologies.
- Matchmaking of MSMEs with EE service providers to understand and assess the scope of work, energy savings potential in their units, etc.
- Risk sharing and dispute resolution mechanism for the ESCO projects through performance contracting.

Q: What has been your experience of lending to ESCOs?

SIDBI is executing PRSF to promote and enhance implementation of the ESCO model and transform the EE market. PRSF is being implemented through Energy Savings Performance Contract (ESPC), and the EE market in India is slowly picking up as all the stakeholders in the ESPC ecosystems are now able to comprehend the EE market dynamics. Although SIDBI has a few years of experience in ESCO financing, we find there are few ESCO projects coming up for financing. It is felt that a lot of awareness creation is needed among various stakeholders, namely, ESCOs, hosts and FIs, to appreciate the opportunities available in this segment.

Q: What is needed to promote the ESCO model for EE lending to MSMEs?

To promote the ESCO model for EE lending, there is need for awareness creation, resolving M&V issues, adequate regulatory direction (except for selected PAT members), financing options for the sector, and a legal framework to help ESCOs enter into shared saving model.

The PRSF project is expected to provide partial risk cover to more than 500 ESCO-implemented EE projects which would mobilize financing to the tune of around ₹864 crores (USD 127 million). Further, the PRSF project is expected to result in energy savings to the tune of 1000 GWh and reduction in CO₂ emissions to the tune of 0.734 million tons. The project has a dedicated website <http://prsf.sidbi.in>. As a part of the ESCO market development, an interactive platform has been developed on the PRSF website, wherein ESCOs, various FIs and hosts can participate.

One of the important objectives of the project is to create a bouquet of banks/NBFCs that are active in ESCO financing. As of now, five MoUs have been signed with interested and eligible banks/NBFCs to participate under PRSF, i.e., ESCO financing with PRSF guarantee support. The project till date has supported ESCO-based EE projects with a total project cost of ₹11.7 crores. These projects will result in annual energy savings of around 11,600 MWh and reduce around 13,150 tons CO₂ emissions annually. ●●●



YES BANK SCHEMES AND PRODUCTS TO FINANCE ENERGY EFFICIENCY IN SMEs



YES BANK is India's fifth largest private sector bank, with its operations extending across corporate, retail and SME banking. **Ms Namita Vikas**, Group President & Global Head, Climate Strategy & Responsible Banking, YES BANK, outlines the bank's initiatives and products to promote EE in the Indian SME sector.

Q: What are the major EE-related products that YES BANK has been working on? As a bank active in the climate finance space, what are the key initiatives for promoting EE in SMEs?

MSMEs have always been a focus sector for YES BANK. The bank has been offering a complete range of products for the sector including current account, cash management service, trade finance, and term loans. Given our strong experience with the sector, it was realized that there is a significant potential in improving sustainability practices amongst MSMEs thus improving the sector's productivity and profitability. YES BANK has initiated a unique multidimensional approach to support MSMEs across India, through its programme 'Say YES to Sustainable MSMEs in India'. This programme aims to promote environmental sustainability through EE and occupational health and safety (OHS) within the Indian MSME sector. The programme's major focus is on EE, in view of the significant costs incurred by MSMEs on energy consumption, and the scope for EE optimization and overall energy intensity reduction. Under the programme, MSMEs are supported in enhancing EE and improving their business practices through multifaceted interventions including sensitization workshops, energy audits, capacity building on EE, health camps, training on safety and first aid, etc., and provision of drinking water facilities.

Since inception, the programme has impacted

over 1000 MSMEs; benefitted more than 12,500 workers across 9 states, 18 locations and 7 sectors; and reduced 6000 metric tons of CO₂ emissions. In FY 2016–17, YES BANK aims to bring the benefits of EE to 2000 MSMEs in 11 states covering more than 13 industrial sectors including foundry, dyeing, rubber, plastic, general engineering, textile, rice mills, auto ancillaries, industrial tools and pumps, sports goods, handicrafts, railway vendors, etc.

YES BANK has joined hands with SIDBI for financing EE projects with a focus on MSMEs under the Partial Risk Sharing Facility (PRSF). YES BANK is the first bank to be empanelled as a Participating Financial Institution (PFI) under this facility. The bank is closely working with BEE towards its empanelment as the PFI in making ESCOs bankable, which will in turn lead to the uptake of EE projects.

The Bank has also been strengthening awareness and promoting EE among all its stakeholders, through targeted research with clear recommendations for channelizing finance in the SME sector. Two knowledge reports which present specific EE opportunities for MSMEs have been released by the Bank in this context .

Q: Having worked with MSMEs and also specifically in the EE domain, what according to you are major challenges which banks face while providing loans to SMEs??

EE financing has huge potential in India; especially in the MSME sector, where the technology upgrade takes a longer time owing to relatively higher capital



investments. However, the practice is still at a nascent stage and some of the challenges include:

- *Limited documentation and monitoring:* Given the nature of industry with limited systems and processes in place, it becomes difficult to monitor the improvement in terms of energy and monetary benefits arising out of EE projects. Without clear and quantified benefits, it becomes difficult to identify financing opportunities in such projects, thus impacting the ultimate outcome of realizing energy saving potential
- *EE not being a priority:* Even though EE is a source of quick and risk free returns, it is much lower down the priority list, given the pressures for business development, compliance and production numbers. This is compounded by the limited knowledge and exposure of MSMEs to EE projects and opportunities
- *Small ticket size:* EE interventions come at much lower cost with respect to the total assets of the company, making it difficult to evaluate as a stand-alone project for financing
- *Challenges in implementing process modifications:* EE implementation may require a few process changes/technical modifications. MSMEs may require capacity building on their technical expertise to bring about such changes.

Q: What do you think can be done to overcome these challenges?

At YES BANK, we believe that EE is a sunrise sector for financing, given its clear business case. The bank has developed extensive experience in working with leading ESCOs in the country to provide EE financing. The bank has engaged with SIDBI to provide partial risk guarantee for the loans given to ESCOs this year. Various EE projects have already been evaluated by the bank and loans have been sanctioned in areas

like energy use efficiency in buildings, equipment replacement in hospitals, and street lighting.

However, to fast track the EE agenda among MSMEs, I think the following steps would be critical:

- *Increasing awareness on EE among MSMEs:* EE should be propagated among the MSMEs as a cost-saving mechanism based on payback periods, increasing its priority among other available investment options
- *Guaranteed savings to ESCOs:* Guaranteed monetary saving from EE projects would help attract debt capital towards them. Funds from government, multilateral agencies can be leveraged to provide minimum guaranteed payment to the ESCOs as part of the off-taker contracts in addition to the guarantees available to financial institutions for ESCO financing
- *Creating MSME groups:* Individual MSMEs may have limited capacity for investment in technology; however, coherent groups of MSMEs or clusters may avail loans for cutting-edge technologies to enable higher energy saving at affordable rates
- *Value chain support from the large companies:* There has been a great push towards greening supply chains of large corporations. Such corporations may handhold the MSMEs in their supply chain to use EE technology by giving them technical support and providing guarantees to increase the financing potential of such projects

YES BANK is committed to being a one-stop solution provider for the MSME sector by catering to all their banking requirements as well as enhancing their environmental sustainability through energy efficiency, to help them become globally competitive, both in terms of output and efficiency, and contribute towards achieving the Prime Minister's vision of 'Zero Defect, Zero Effect'.

SAMEEEKSHA is a collaborative platform aimed at pooling the knowledge and synergizing the efforts of various organizations and institutions—Indian and international, public and private—that are working towards the common goal of facilitating the development of the Small and Medium Enterprise (SME) sector in India, through the promotion and adoption of clean, energy-efficient technologies and practices.

SAMEEEKSHA provides a unique forum where industry may interface with funding agencies, research and development (R&D) institutions, technology development specialists, government bodies, training institutes, and academia to facilitate this process.

For more details, please contact

Mr Sachin Kumar
 Secretary—SAMEEEKSHA
 Industrial Energy Efficiency Division
 TERI, Darbari Seth Block
 IHC Complex, Lodhi Road
 New Delhi – 110 003, India
 Tel: +91 11 2468 2100, 2468 2111,
 Fax: +91 11 2468 2144, 2468 2145
 Email: sachink@teri.res.in
 Website: <http://sameeeksha.org>