



### A PLATFORM FOR PROMOTING ENERGY EFFICIENCY IN SMEs

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## Editorial

It is only natural that while the MSME sector's importance to the Indian economy continues to increase—in terms of its share in GDP and overall industrial production, employment generation and social inclusiveness—it is also becoming increasingly sensitive to changes in the market environment at both national and global levels; changes that are inevitable, and often rapid, as India progressively opens up its economy to become a major participant in the globalized market. These changes pose both opportunities and challenges for MSMEs, and their solutions must be found through engagement and dynamic interventions at policy and institutional levels.

An example is the public procurement policy announced by the government in November 2011, under which government bodies and public sector undertakings are required to source at least 20% of their annual purchases from MSMEs within a period of three years. Another example is the policy regarding Foreign Direct Investment (FDI) in single brand retail product trading, under which FDI investors are to source part of the goods purchased from MSMEs. Both these policies effectively widen the marketplace for the MSME sector. However, they also raise a slew of challenges for MSME units, such as product diversification and quality improvement to meet new clientele demands; increasing process efficiency; raising loans for acquiring new/improved technology; upgrading the skills of the workforce; and thus remaining competitive. These challenges in turn must be overcome through the creation of a supportive policy and institutional framework for MSMEs that takes into account the ground realities in which they operate.

The sheer spread, complexity and diversity of the Indian MSME sector makes it a challenging task for the government to create a framework for overall MSME sector development—one that can meet the diverse technological, financial and human development requirements of hundreds of MSME clusters, yet still be flexible enough to accommodate the ever-changing demands of the globalized market. Simply put, there is no lasting, 'one size fits all' solution for MSMEs.

In this scenario, it is also vital for MSMEs themselves to play a proactive role in terms of upgrading their production processes, utilizing energy efficient and environment friendly technologies, investing in skill development of their work force, quality improvement and other related aspects so as to remain competitive. TERI has been actively working in one such area i.e. helping MSMEs improve their energy performance. It has been seen that this has a profound impact on the profitability and sustainability of the MSMEs in many cases. As described in this issue, the recently held National Summit on Energy Efficiency in MSMEs organized under the aegis of SAMEEKSHA provided an opportunity for MSME entrepreneurs and other cluster-level stakeholders to interact with and articulate their ideas and perspectives on the issue of energy efficiency before government officials, financiers, academia and others from the highest levels of policy making.

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The Energy and Resources Institute



# NATIONAL SUMMIT ON ENERGY EFFICIENCY IN MICRO, SMALL AND MEDIUM ENTERPRISES (MSMEs)

Date: 30–31 July 2012

Place: New Delhi

The first-ever National Summit on Energy Efficiency in MSMEs was organized under the aegis of SAMEEKSHA from 30–31 July 2012 in New Delhi. The Summit was supported by Embassy of Switzerland in India, BEE, Ministry of MSME, French Development Agency (AfD), Energy Efficiency Services Limited (EESL), and German Development Agency (GIZ). The two-day conference drew more than 200 participants who represented 30 government departments, 16 bilateral/ multilateral agencies, 7 financial institutions, 9 academic institutions, 20 energy consulting firms, and 40 cluster-level industry associations from various MSME sub-sectors across India such as ceramics, engineering, refractory, dairy, textiles, brass, brick, paper, foundry, and rice mills.

The deliberations at the Summit focused on finding an answer to one key question: *How can we enable MSMEs to become more energy efficient?* In their efforts to find an answer and to define directions for further course of action in the MSME sector, the participants shared their knowledge, experiences and ideas in a series of intense and interactive sessions that spanned the three broad realms of policy, technology and finance.



Dignitaries at the inaugural session



Participants at the Summit

## Setting the theme

In his introductory remarks, the Ambassador of Switzerland in India, Dr. Linus von Castelmur highlighted the Swiss Government's 18-year-long engagement with India's MSME sector which has resulted in 700 replications of energy efficient (EE) technologies. The challenge is to increase the replication of such EE solutions. Dr R K Pachauri, Director General of TERI, pointed to the fact that the MSME sector not only contributes significantly to India's GDP numbers but also provides employment to nearly 60 million people. This makes it all the more important to find ways by which MSMEs can remain competitive. Indeed, there is enormous potential to improve the energy efficiency of MSMEs, but this potential has till recently been matched '*in the reverse*' by the low levels of attention to this important sector. Delivering the keynote address, the Director General of BEE, Dr Ajay Mathur, emphasized that the preparation of DPRs in regard to EE technologies is not





**Release of BEE-AFD report by Mr R K Mathur (L) and Mr Robert Angioletti (R)**

enough to ensure their uptake; implementation of the DPRs requires the strengthening of cluster-level support services. BEE sees the future challenge as ensuring that the '*energy efficiency business*' takes off. Mr R K Mathur, Secretary, Ministry of MSME, spoke on the challenges faced by MSMEs in accessing bank loans, and cited an assessment by CRISIL that the banking sector meets barely 10% of the credit needs of the Indian MSME sector—an indication of the sector's '*credit hungriness*'. On the other hand, funds provided by the Government of India and SIDBI under various schemes for MSME development remain under-utilized.



**Setting the theme - interactions among participants**

Setting the tone for the deliberations at the Summit, Mr Prosanto Pal, Senior Fellow from TERI summarized the learning from various energy efficiency initiatives in the MSME sector. He highlighted the importance of understanding the MSMEs' perspective on the key issues related to energy efficiency at three levels—namely, policy, technology, and finance—and of addressing these issues in a synergistic manner. The discussions that followed brought out important points related to credit rating methodologies, the reasons behind the slow replication of proven technologies, the lack of energy benchmarking, and the need to support institutionalization of local service providers (LSPs).

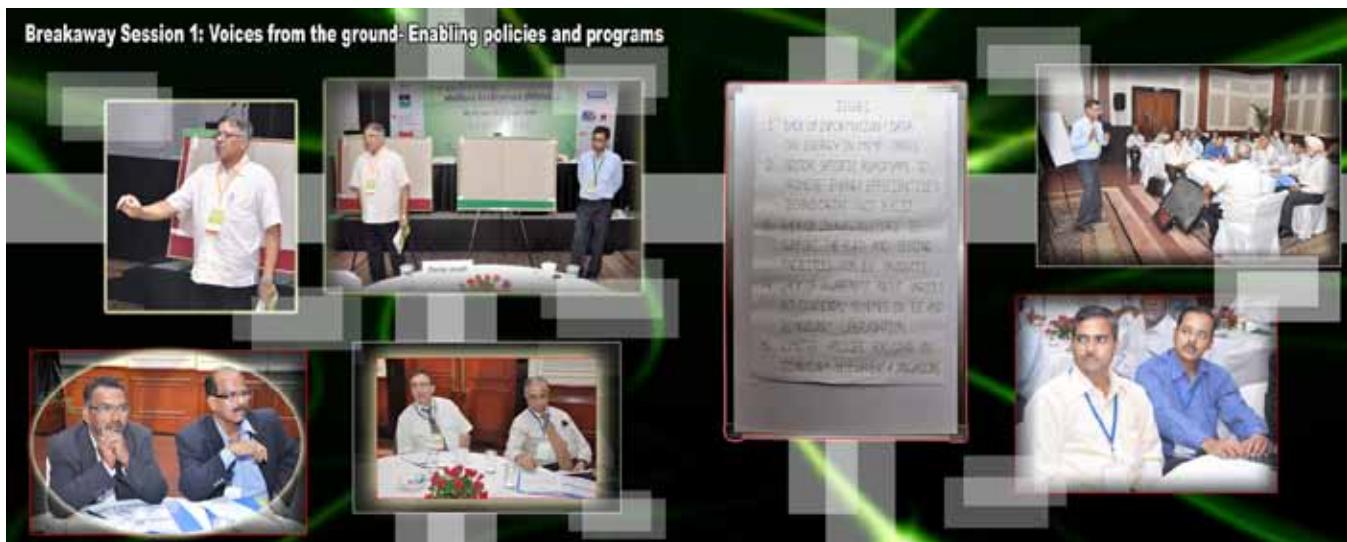
### **Hearing voices from the ground**

In order to sharpen awareness on the challenges faced by MSMEs at unit and cluster levels in regard to EE technologies, special breakaway sessions followed during which the cluster-level industry stakeholders—entrepreneurs, office bearers of industry associations, technology suppliers and LSPs—articulated their needs, concerns and suggestions. The key insights provided by these '*voices from the ground*' fed into, and formed the basis for, the deliberations in the plenary sessions on the second day of the conference. Some of the insights are summarized below.

#### **Some key insights provided by 'voices from the ground'**

Theme	Key insights
Policy	<ul style="list-style-type: none"> <li>Assured supply of quality power is a major issue</li> <li>Energy data on clusters should be collected through associations, State Designated Agencies and energy suppliers</li> </ul>
Technology	<ul style="list-style-type: none"> <li>Demonstrate model EE pilot projects at cluster level</li> <li>Strengthen knowledge platforms and industry-academia interface to spread awareness and information on success stories</li> </ul>
Finance	<ul style="list-style-type: none"> <li>MSMEs could group together and aggregate their individual loan requirements for EE technologies; as a group, they could then approach the bank for finance</li> <li>There is need for a special agency to bridge the gap between MSME entrepreneurs and banks</li> </ul>

**Breakaway Session 1: Voices from the ground- Enabling policies and programs**



**Breakaway Session 2: Voices from the ground- Adoption of energy efficient technologies**



**Breakaway Session 3: Voices from the ground- Financing energy efficiency investments**





The opening day of the Summit also saw the launching of the official website of SAMEEKSHA, namely, [www.sameeksha.org](http://www.sameeksha.org). Two books were also released during the Summit: (1) a report on benchmarking and mapping energy consumption in Indian MSMEs (a BEE–AfD–ADEME–TERI initiative); and (2) a book on DSM Action Plan for Tamil Nadu (a TERI–Shakti Foundation initiative). A presentation by GIZ showcased the activities undertaken by GIZ to promote insulation in energy-intensive MSME clusters through its ‘energy bus’ initiative.

The three plenary sessions—on the themes of Policy, Technology and Finance—were held on the second day of the Summit. Each session began with a summary of the key insights gathered on the respective theme from the ‘voices from the ground’; an expert then made a background presentation to deepen understanding on relevant issues. A panel discussion followed in order to identify steps that could be taken to resolve the issues raised by the MSMEs and other cluster-level stakeholders. The main outcomes of the Summit are summarized below:

- Creation of an enabling policy and institutional environment for energy related data collection in the MSME sector.
- Long-term hand-holding is required by capable cluster-level agencies like LSPs so as to ensure sustainable adoption of EE technologies.
- Energy intensive cluster-based approach should be followed for formulation and implementation of supportive policies. The concept of ‘Designated Consumer’ as defined by the Perform, Achieve and



Panelists at the Finance session

Trade (PAT) scheme may be extended to MSMEs as ‘Designated Clusters’ for mass impact.

- A single internet portal with details of all financial schemes for MSMEs should be available
- Quality standards should be set and implemented for fuels as well as raw materials.
- Institutionalize capacity building & training, and create common facility centres for the testing of raw materials and products.
- Ensure that new/innovative technologies are flexible enough to be compatible with different processes and products.
- Focus on Research, Development, Demonstration and Dissemination approach (RDD&D) to promote EE technology
- Establish management centres to help small-scale entrepreneurs avail financial assistance through a single-window system
- Build capacities of bankers to enhance their understanding of EE technologies as well as their ability to assess EE projects
- Set up special schemes for cluster-specific EE financing

The valedictory address was delivered by Mr Ajay Shankar, Member Secretary, National Manufacturing Competitiveness Council (NMCC). He emphasized the importance of industry stakeholders being involved in the formulation of relevant policies for MSME sector development; only then would these policies have a positive impact at the ground level. *In the era of globalization and the globalized economy, we will not succeed in the development of MSMEs unless we succeed in energy efficiency aspects.*



Valedictory session



## NATIONAL LEVEL DISSEMINATION WORKSHOP PROMOTING ENERGY EFFICIENCY IN PUMP INDUSTRY IN INDIA

Pump sets account for a significant percentage of the total electricity produced in India. Some estimates put this figure to as high as 21% of India's total electricity production. Out of an estimated 2,000 pump manufacturers in India, a large number are in the small and medium scale category. The main pump manufacturing hubs in India are Ahmedabad and Rajkot in the state of Gujarat and Coimbatore in the state of Tamil Nadu. Pilot initiatives have shown that there is considerable potential to save energy by promoting the manufacture of energy efficient pump sets and by replacing the inefficient pump sets with more energy efficient models.

TERI, in partnership with BEE and Shakti Sustainable Energy Foundation (SSEF) recently concluded a study titled '*Promoting Energy Efficiency in Pump Industry in India: Addressing the Energy and Climate Change Problem*'. A national level dissemination workshop was organized on 30 July 2012 at New Delhi to disseminate the findings of the study. A number of leading pump manufacturers from various clusters in Gujarat and Tamil Nadu participated in the workshop.

Mr S P Garnaik, Energy Economist, BEE chaired the discussions. BEE began by seeking the views of the pump manufacturers on the prospect of making the BEE Star Labelling mandatory for pump sets. This was followed by a detailed presentation of the findings of the study by TERI. All the major recommendations of the study were discussed in detail and accepted by the participants. BEE expressed its willingness to consider proposals developed by TERI, SSEF and the pump industry to implement some of the recommendations of the study.

The following specific activities were discussed and agreed upon for further investigation:

- Study on quantification of energy losses in pumps as a result of poor quality of grid supply power.

- A pilot study to test and compare the actual and design efficiency of pumps and motors of BEE labelled pump sets.
- Action research project on development and demonstration of super-efficient pumps.
- Greater awareness of the concept of life cycle energy cost and pump efficiency needs to be created. Public procurement programs can be modified to encourage lowest life cycle cost rather than lowest capital cost.
- Development of new energy efficient stainless steel pump sets requires R&D. Innovation centres should be established at cluster level to strengthen R&D and provide technical assistance to local industry.
- Material of construction directly influences the efficiency of the pump set. Presently the BIS standard for pump sets does not specify the grade/quality of the material of construction to be used for different components. This needs to be corrected.
- Possibility of strengthening BIS standards to incorporate reliability/durability (deterioration of pump efficiency with time) criteria needs to be looked into.



**Project dissemination workshop**

## ROUNDTABLE ON INDO FRENCH COOPERATION IN INDIAN MSMEs

A workshop on ‘Indo-French Cooperation in the Indian MSME sector’ was organized on the sidelines of the National Summit on Energy Efficiency in MSMEs. The participants included representatives from a number of MSME clusters/ sub-sectors, energy consultants from France, BEE, AFD, ADEME, and SDAs. A background presentation was made on energy consumption and efficiency opportunities in six MSME clusters: Morbi (ceramics), Thangarh (sanitaryware), Jamnagar (brass), Surat (textiles), Firozabad (glass) and Punjab (dairy). Thereafter, the general findings of the BEE–AfD–ADEME–TERI study on ‘*Benchmarking and Mapping energy consumption in Indian MSMEs*’ were presented, with pointers to possible cooperation areas with different ‘Centres of Excellence’ in France. Some of the major points that emerged for taking forward the Indo French Cooperation in this field are summarized below.

### ***Facilitate R&D for technology development and customization***

For a number of clusters in which off-the-shelf technological options are not readily available, research and development (R&D) must be initiated to promote the development of customized technological solutions for MSME units.

### ***Support pilot technology demonstration projects***

The new technologies need to be demonstrated at cluster level; for, this would help in building the confidence levels of entrepreneurs and in fine-tuning/ customizing the developed solutions to suit the local needs and conditions.

### ***Establish ‘technology excellence centres’***

‘Technology excellence centres’, similar to those established in France, may be promoted at cluster

level. This would help the units at cluster level to find and adopt technical solutions that meet their needs. Such centres must be modelled on the principle of ‘self-sustenance’.

### ***Introduce energy audits in MSME units***

Energy audits at unit level would help individual MSME units in (i) knowing their energy consumption, (ii) identifying energy efficiency options, and (iii) benchmarking their performance parameters with similar types of units.

### ***Visit of French experts to the identified clusters***

A visit to the identified clusters by experts and representatives from technical centres of excellence in France, e.g. CETIAT (French Technology Centre), would help in (i) deepening the understanding of the technologies and practices at cluster level, (ii) identifying areas for performance improvements and (iii) developing strategies for interventions.



Promoting Indo-French cooperation among MSMEs

## ABOUT SAMEEKSHA

SAMEEKSHA 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.

SAMEEKSHA 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.

## ABOUT TERI

A dynamic and flexible not-for-profit organization with a global vision and a local focus, TERI is deeply committed to every aspect of sustainable development. From providing environment friendly solutions to rural energy problems to tackling issues of global climate change across many continents and advancing solutions to growing urban transport and air pollution problems, TERI's activities range from formulating local and national level strategies to suggesting global solutions to critical energy and environmental issues.

With staff of over 900 employees drawn from diverse disciplines, the institute's work is supported by ministries and departments of the government, various bilateral and multilateral organizations, and corporations of repute.

## VISION OF SAMEEKSHA

*SAMEEKSHA 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.*

### FOR MORE DETAILS, PLEASE CONTACT

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