

**Expression of Interest for seeking the partners for upscaling of EE technologies for promoting market transformation for energy efficiency in msme**

# Introduction

Energy Efficiency Services Limited (EESL) has been implementing the world’s largest energy efficiency portfolio across sectors like lighting, buildings, industry electric mobility, smart metering, agriculture, etc. at an enormous scale. EESL’s energy efficiency solutions have saved India over 47 billion kWh energy annually, while reducing 36.5 million tons of carbon emission. These interventions have so far avoided 12 GW of Generation Capacity in the market. EESL and her subsidiary CESL focus on solution-driven innovations to provide public value at scale and operates with the intent of creating and opening markets which have the capacity to exist but have not been able to take-off due to various constraints, a few examples being LED Bulbs, Street lights, Smart meters, Feeder level solarization, and Electric busses.

# About EESL-UNIDO-MoMSME (GEF 5) project

The Global Environment Facility funded program in India is supporting a project titled “Promoting Market Transformation for Energy Efficiency in Micro, Small & Medium Enterprises (MSME)”. This project is being implemented by United Nations Industrial Development Organization (UNIDO) and Energy Efficiency Services Ltd. (EESL), a JV of PSUs under Ministry of Power, Govt. of India, is the executing agency. Ministry of MSME, Govt. of India, is the nodal agency for overall guidance and steering of the activities.

Bureau of Energy Efficiency (BEE) is associated with the project and Small Industries Development Bank of India (SIDBI) would be the lead Financer for the project. The project involves creation of an EESL MSME Revolving fund, under which identified MSMEs shall be provided low cost concessional funding for deploying 35 (indicative) identified energy efficient (EE) technologies that would result in improving specific energy consumption or specific thermal consumption in their areas of domain. EESL also looks forward to possibilities of Grants from other Organizations to populate the fund with a view to further reduce the cost of capital.

The aim of the project is to demonstrate at scale the replicability of such technologies for adoption by MSMEs across the country. The project implementation would be in two ways:

1. For technologies that are scalable, replicable and involve low levels of customization, EESL would aggregate demand and improve the value of the project by lowering costs through demand aggregation. In such case, EESL shall provide the products through identified ESCOs to the target MSMEs along with the opportunity of obtaining funding through the Revolving fund.
2. For technologies that are not scalable, and require customization, Energy Service Companies (ESCOs) capable of doing these projects shall be identified and access to the market (here, MSMEs, identified through a basic screening process) shall be given to them through a suitable digital portal. This portal shall also enable concessional financing through the Revolving fund for such project.
3. The beneficiary MSME units are expected to pay-back to the investor from the monetized energy saving during project period. More than 400 replications of energy efficient technologies have been targeted under the replication phase of this project through creation of EESL MSME Revolving Fund (EMRF).

# Proposed Technologies

EESL has identified 35 EE technologies and also demonstrated these technologies as proof of concept. Out of these 35 technologies, EESL has selected 22 technologies which can be successfully replicated and scaled in the clusters. These technologies are divided into two categories: a) Standard technologies which can directly go for bulk procurement and b) Customized technology which need customization as per requirement of individual units. The list of technologies covered under these two categories are as below:

## Standard technologies

1. Screw air compressor with VFD and PM motor
2. PLC based automation system for Jet dyeing machine
3. Boiler automation system
4. IBR Boiler
5. Vertical Agitator system
6. Scroll chiller
7. FRP Based Fan
8. Fitch Fuel system
9. Furnace automation
10. Modulating burner
11. Withering Automation
12. Metallic Recuperator
13. IGBT based welding machine

## customized technologies

1. Automation of dyeing machine
2. Swirl burner
3. On-load tube cleaning system
4. Side stream filtration
5. Multi spindle drilling machine
6. Electric Vacuum pump
7. Integrated Billet Heater system
8. Agitated Nutsche Filter with drying (ANFD) system
9. Divided Blast Cupola (DBC)

# Intended beneficiaries

MSME units across India would be the key beneficiary along with ESCOs and technology suppliers. Reduction in the energy savings may lead to reduced carbon footprint.

# This EOI

Through this EOI, EESL intends to seek public consultation and interests from various partners for:

1. Identification of potential MSME clusters/ MSMEs Associations / Industry body organizations/ institutions that would be interested in such energy efficiency projects.
2. Identification of potential ESCO providers that can offer such services and products in relation to the 35 identified technologies.
3. Identification of Institutions that would be willing to partner with EESL and SIDBI in providing grant-based funds to lower the cost of capital of EMRF.
4. Comments and ideas, if any, on the EMRF fund and the way it should be deployed for the benefit of MSMEs, demand aggregation approach, framework for fast track procurement & technical services.

A meeting with all Stakeholders on the subject matter in the first week of May 2023.

# Response to this EOI

Donors, Technology solution providers, Start-ups, ESCOs, Energy Auditing agencies, Industrial Bodies and think tanks, Cluster associations, International Organizations, NGOs/ Not for Profit organizations/ Philanthropic organizations and other Stakeholders may submit this expression of interest along with concrete ideas/comments/proposals on email [asemwal@eesl.co.in/gshankar@eesl.co.in](mailto:asemwal@eesl.co.in/gshankar@eesl.co.in) by May 3rd, 2023.

A Stakeholders consultative meeting shall be called in the second week of May, 2023.