



# Promoting Market Transformation for Energy Efficiency

**in Micro, Small & Medium Enterprises**

## STAKE HOLDERS



Implementing Agency



सत्यमेव जयते  
MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISE  
GOVERNMENT OF INDIA

Executing Agency



ENERGY EFFICIENCY SERVICES LIMITED  
A JV of PSUs under the Ministry of Power

Implementing Partner



Donor Agency



Bureau of Energy Efficiency

Guiding Agency



Financing Guide and Partner

**MSME Units/  
Cluster  
Associations**

Private Sector Stakeholders

## BACKGROUND

In order to overcome the existing barriers for implementation of energy efficiency in the Indian MSMEs, the project, "Promoting market transformation for energy efficiency in Micro, Small & Medium Enterprises," a joint initiative conceptualized by United Nations Industrial Development Organization (UNIDO) and office of the DC MSME, targets to create and sustain a revolving fund mechanism as a mode to ensure replication of energy efficiency measures in selected 10 industrial clusters. The key executing agency of the Project is Energy Efficiency Services Ltd (EESL). Small Industrial Development Bank of India and Bureau of Energy Efficiency are the other important stakeholders of the project.

## PROJECT OBJECTIVES

The project aims to:



To promote, implementation of energy efficiency in the MSME sector by addressing technical and financing barriers, including through creation of a revolving fund mechanism



Replication of standardised energy efficient technologies in the sector through aggregation of demand to reduce the transaction cost and thereby promote a cleaner and more competitive MSME industry in India





## BENEFITS

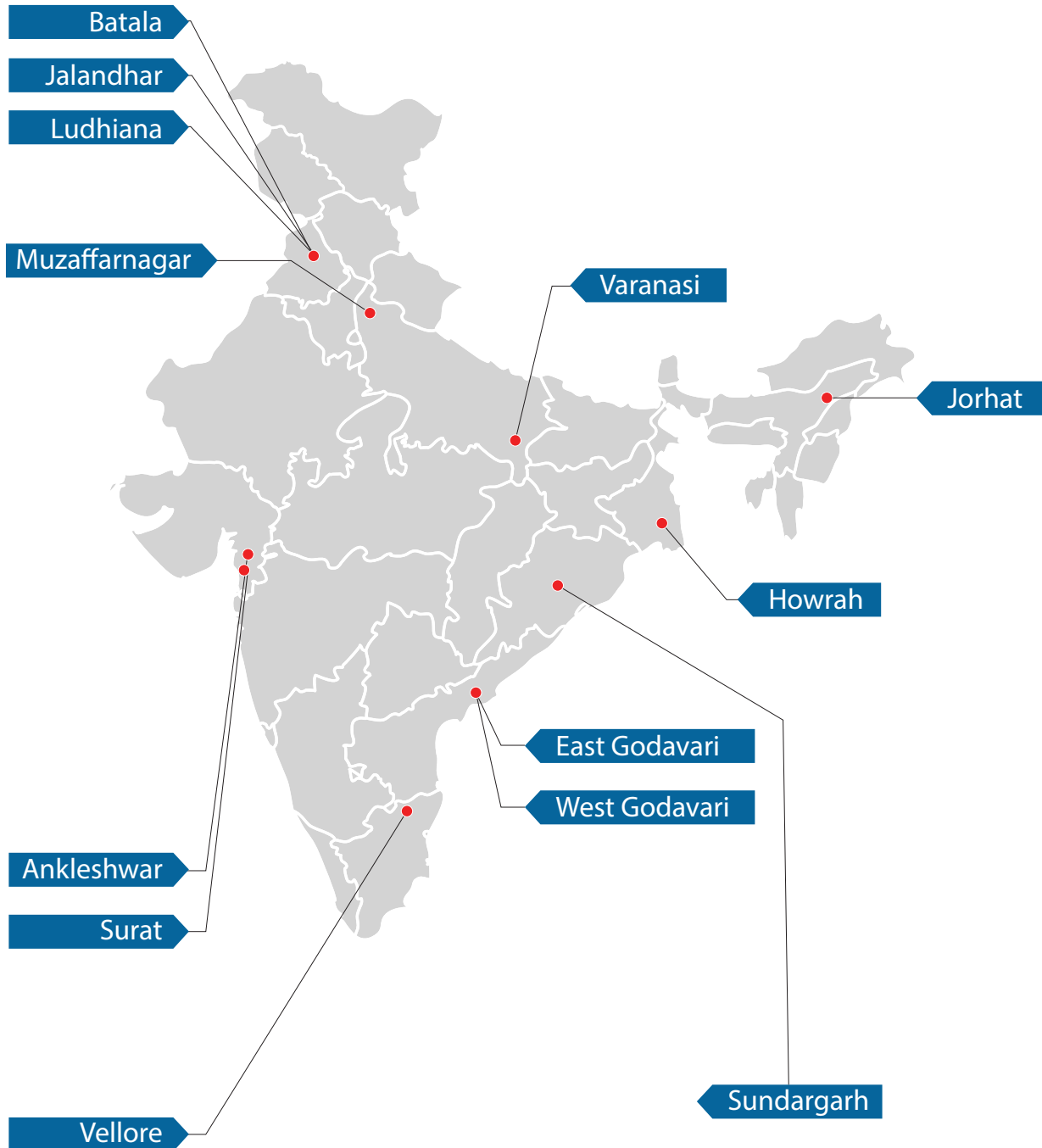
- ↓ Low Capital Investment
- 🔗 Monetary Savings Up-to 10-20%
- 💡 Innovative Business Model
- ⑤ Cost Effective Procurement
- ↔ Capacity Building
- 🔧 Technical Assistance
- ✓ Performance Guarantee
- 📅 Annual Maintenance Contract

## PROJECT COMPONENTS

1. Programme to identify energy intensive clusters and replicable technologies
2. Pilot implementation of the identified technologies
3. Aggregation of demand for demonstrated technologies in the clusters
4. Financial models to support replication of energy efficiency projects in MSME

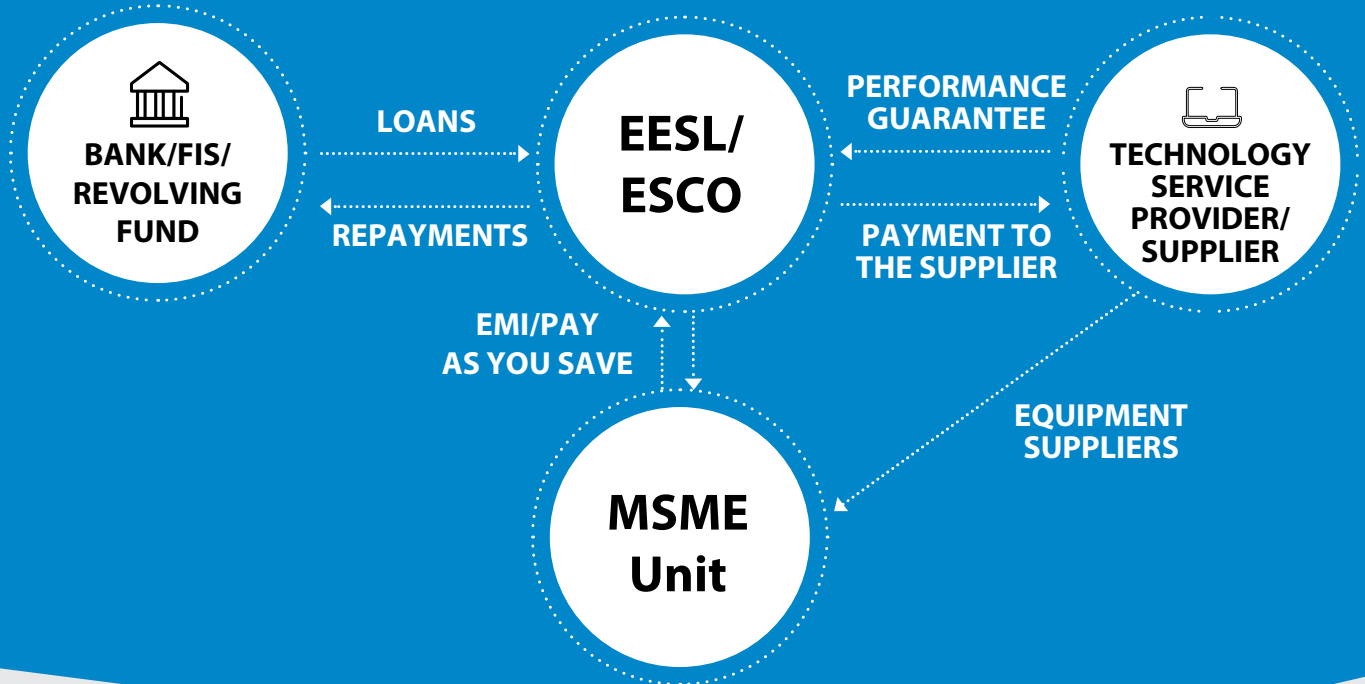
## CLUSTERS IN FOCUS

## & IDENTIFIED TECHNOLOGIES

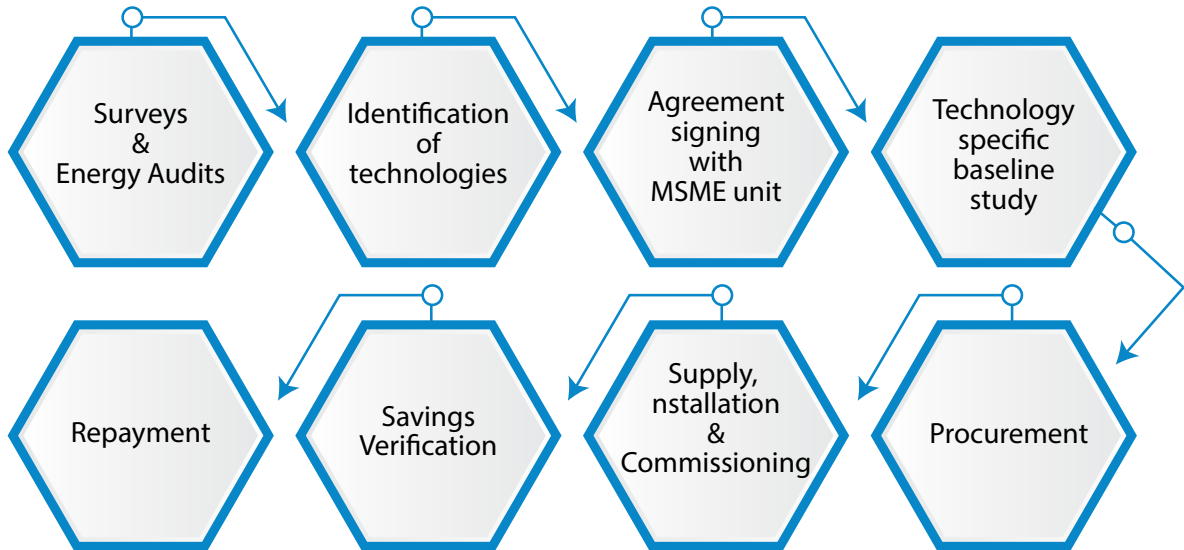


Batala Jalandhar Ludhiana	<ol style="list-style-type: none"> <li>1. Induction billet heaters</li> <li>2. Special purpose machines</li> </ol>
Muzaffarnagar	<ol style="list-style-type: none"> <li>1. Energy Efficient Vacuum pumps</li> </ol>
Ankleshwar Surat	<ol style="list-style-type: none"> <li>1. VFD enabled screw compressors with permanent magnet motor</li> <li>2. 100% flash steam and condensate recovery system</li> <li>3. PLC based automation &amp; control system for Jet Dyeing Machine</li> <li>4. Combustion automation system for Boilers</li> <li>5. Micro-Turbines for power generation</li> </ol>
Vellore	<ol style="list-style-type: none"> <li>1. LSU Dryer</li> <li>2. IBR boilers</li> </ol>
Varanasi	<ol style="list-style-type: none"> <li>1. Combustion Control System for boiler/ thermo-pack</li> </ol>
Jorhat	<ol style="list-style-type: none"> <li>1. Automation &amp; control system for withering process</li> <li>2. FRP Blades in Withering Fan</li> <li>3. Energy Efficient Modulating Burners with temperature based control system in Natural Gas Fired Dryer</li> <li>4. Automation in dryer system</li> </ol>
Howrah	<ol style="list-style-type: none"> <li>1. High-efficiency metallic recuperator with steel reheating furnaces</li> <li>2. Automation and control system in steel reheating furnaces</li> <li>3. Energy Efficient divided blast cupola</li> </ol>
Sundargarh	<ol style="list-style-type: none"> <li>1. Multi shell VFD</li> <li>2. Energy efficient screw compressors</li> </ol>

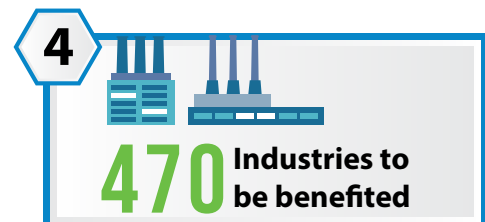
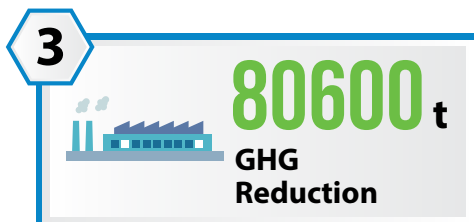
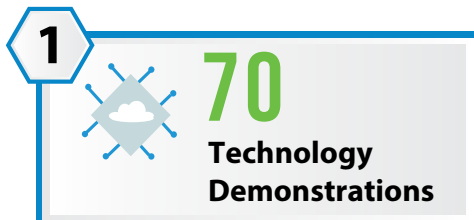
# FRAMEWORK OF THE REVOLVING FINANCING MECHANISM



## IMPLEMENTATION PROCESS



## PROJECT OUTCOMES








For further information, please contact us:

Chief General Manager [Tech]  
Energy Efficiency Services Limited [EESL]  
5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> floor, CORE III  
SCOPE Complex, 7 Lodhi Road  
New Delhi - 110003

 [gef5@eesl.co.in](mailto:gef5@eesl.co.in)

 +91-11- 45801260

 [www.gef5.eeslindia.org](http://www.gef5.eeslindia.org)

National Project Coordinator  
United Nations Industrial  
Development Organisation [UNIDO]  
UN House, 55 Lodhi Estate  
New Delhi - 110003

 [D.Das@unido.org](mailto:D.Das@unido.org)

 +91-11-24643484