



GOVERNMENT OF INDIA  
MINISTRY OF POWER



## 23<sup>rd</sup> Meeting - Small and Medium Enterprises: Energy Efficiency Knowledge Sharing (SAMEEEKSHA) Platform



# Energy and Resource Efficiency Action Plan (MSME Sector)

Neeraj Naik  
Project Engineer,  
Bureau of Energy Efficiency

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## Overview of presentation



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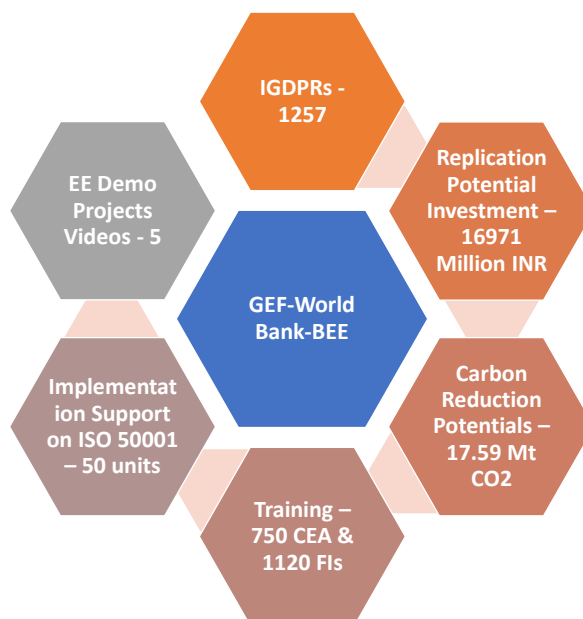
- Overview of BEE-SME Programs
- Brief about ongoing initiatives for MSMEs
- Upcoming Initiatives
- Energy Efficiency Action Plan for MSMEs

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## Achievements of GEF-World Bank-BEE Project



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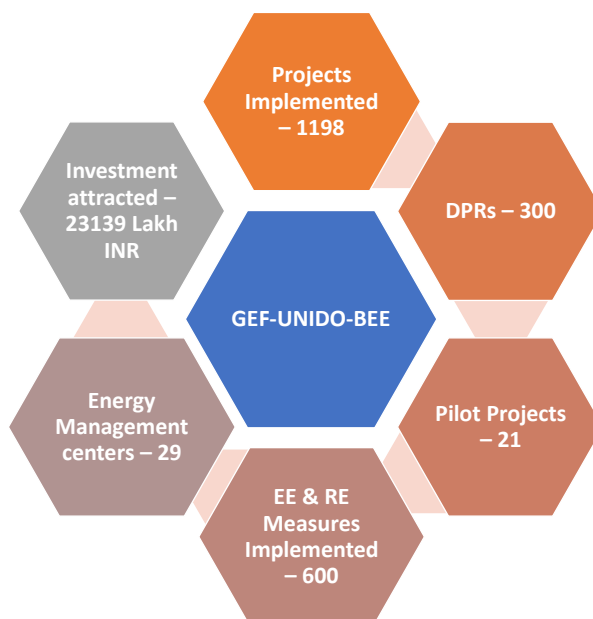


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## Achievements of GEF-UNIDO-BEE Project



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## BEE- SME Program



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# Energy and Resource Mapping Study

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## Energy and Resource Mapping Study



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- Conducted detail study in 5 clusters in each sectors
- Detailed energy audits at 10 units in each cluster (Based on selection criteria)
- Techno-Economic Analysis, Technology and Policy Recommendations
- Sectoral technology and policy roadmap
- Conduct outreach programme
  - Inception meets, Post audit workshop, outreach other similar cluster,
  - National Workshop

**11** Energy  
intensive Sectors  
**55** Clusters  
Additional 45 for  
knowledge  
sharing activities  
**550** chosen  
for detail energy  
audits

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## BEE- SME Program Journey



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### Scaling-up of EE/RE Implementation

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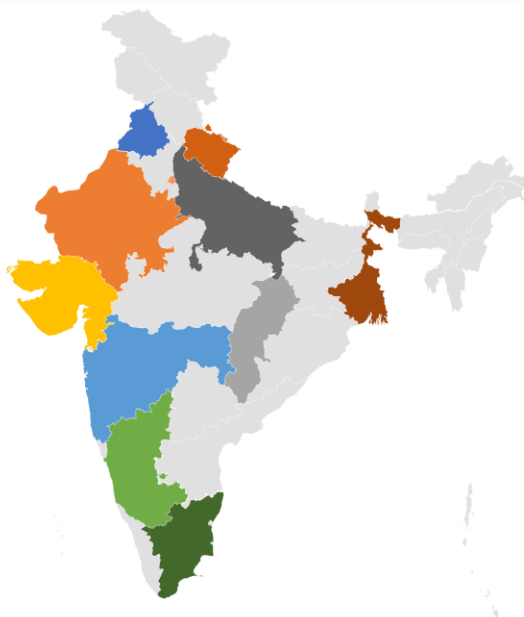
## Scaling-up of EE/RE Implementation



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Technology  
Compendiums  
consisting of  
over 50  
technologies  
for all sector



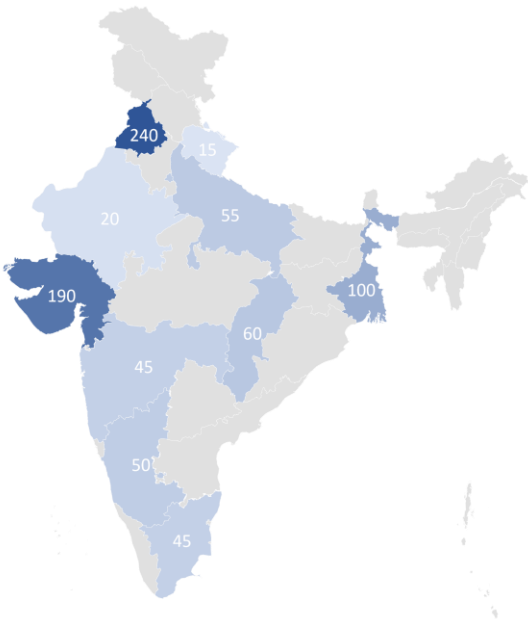
### Targeted units

Forging - 225  
Foundry - 305  
SRRM - 240  
Paper - 100

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Scaling-up of EE/RE Implementation



870 Units  
In  
4 sectors and  
20 clusters

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BEE- SME Program Journey



ADEETIE

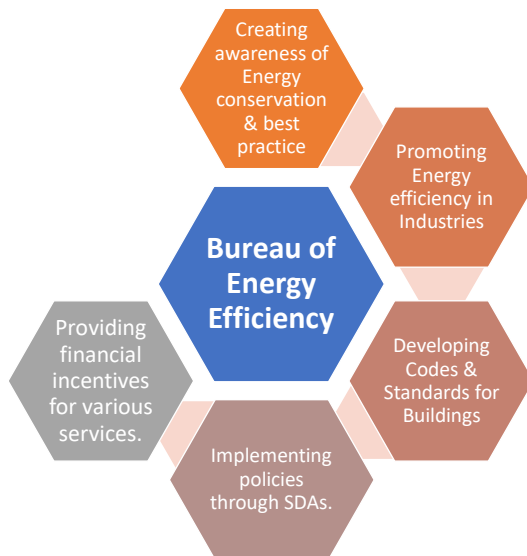
## ADEETIE



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### • Background



**Energy Savings**  
- 42 MTOE.

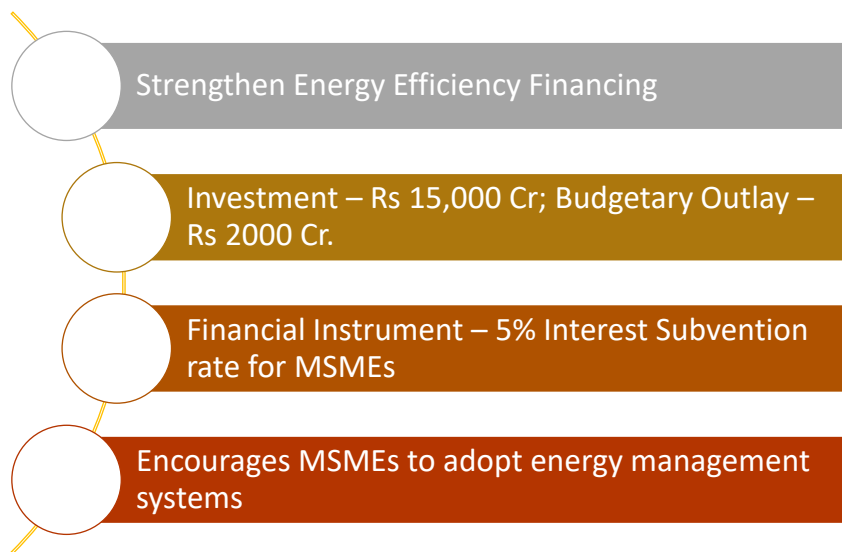
**CO2 emissions mitigated**  
- 267.98 Million tons

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## ADEETIE



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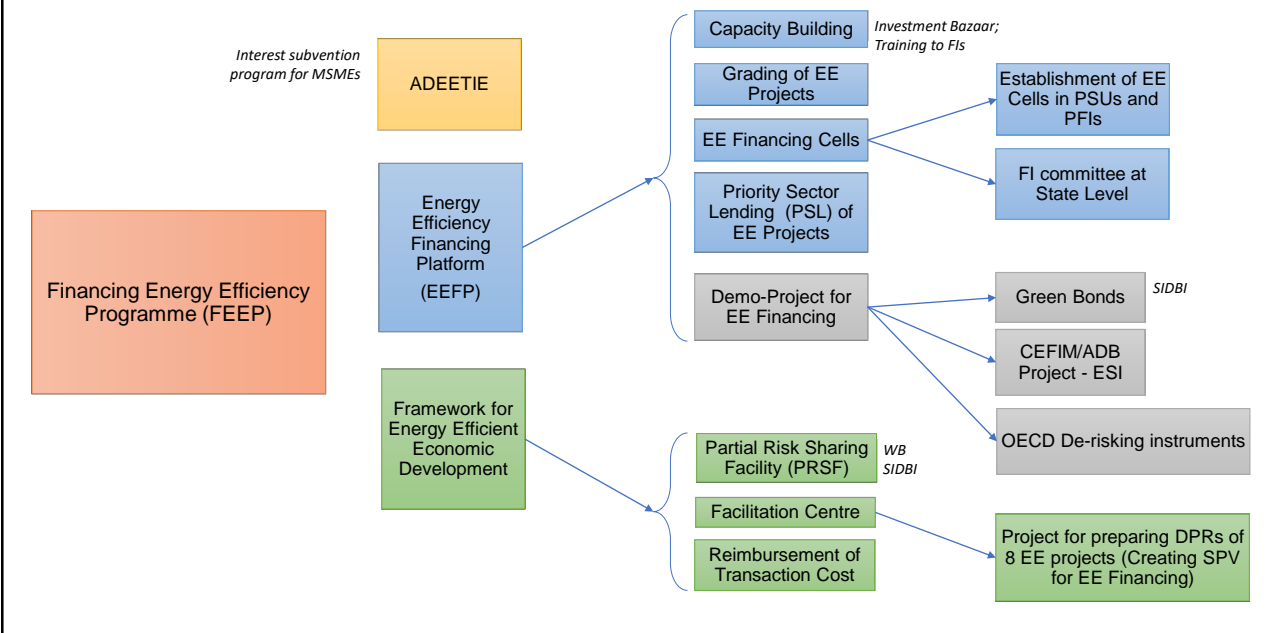


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## Financing Energy Efficiency Programme



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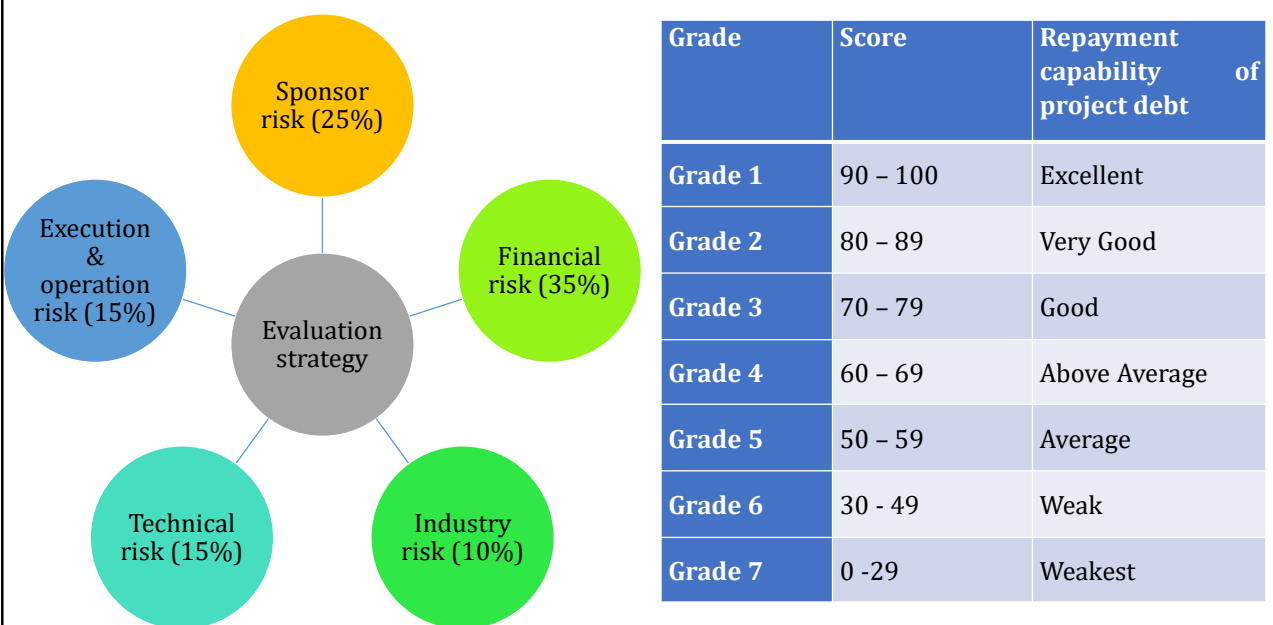


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## Grading of EE Projects - Evaluation Strategy



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## Facilitation Centre for EE Financing



BEE's dedicated IT Platform for mobilizing Energy Efficiency Financing in the country.

<https://www.adeetie.beeindia.gov.in/bee-facilitation-centre>



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[Registered FIs](#)
[EE Technologies](#)
[Partners](#)
[Workshops](#)
[Resources](#)
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[Willingness Form](#)

## BEE's Facilitation Centre

(ADEETIE - Assistance in Deploying Energy Efficient Technologies in Industries and Establishments)



133

Energy Efficient  
Technologies



144

Willingness Forms  
Received



81

TER forwarded to FIs



12

Workshops  
Conducted



22

FIs on board



130

Industrial Customer  
Registered

15

## Facilitation Centre for EE Financing



TATA CAPITAL  
Count on us



इरेडा  
IREDA



SBI



sidbi

IndusInd Bank



Karnataka Bank  
Your Family Bank Across India

YES BANK



बैंक ऑफ बड़ौदा  
Bank of Baroda



केनरा बैंक  
Canara Bank



HDFC BANK



punjab national bank  
...the name you can BANK upon!



इंडियन बैंक  
Indian Bank

Bank of India



इंडिया एक्जिम बैंक  
India Exim Bank



HSBC



kotak  
Kotak Mahindra Bank



Punjab & Sind Bank  
(A Govt. of India Undertaking)  
Where service is a way of life



ckers  
finance

FEDERAL BANK  
YOUR PERFECT BANKING PARTNER

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## IT Platform



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- 1 This IT Platform shall provide one-stop solution for energy efficiency financing.
- 2 The beneficiaries will submit their willingness request online
- 3 Financial Institutions shall also able to receive the notification and submit their comments online
- 4 The list of EE technologies shall also be uploaded on this IT Platform.
- 5 The details of existing EE financing schemes shall be available in this platform.
- 6 The details of tentative rate of interest offered and KYC documents by different FIs shall also be available

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## IT Platform



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- 1 STEP- 1 Submit the willingness form
- 2 STEP-3 Review and Screening of application
- 3 STEP – 3 Request for submission of technical details
- 4 STEP- 4 Technical evaluation of the application
- 5 STEP-5 Submit the report to FIs

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## IT Platform



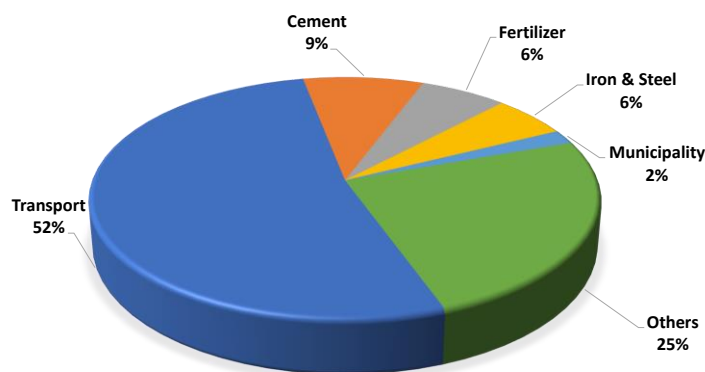
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States	Willingness forms (No.)	Total Project Cost (Rs. Lakh)
Andhra Pradesh	28	41230
Arunachal Pradesh	4	100
Assam	1	NA
Bihar	4	2432.85
Chhattisgarh	1	NA
Goa	1	60
Gujarat	7	72640
Haryana	8	6244
Telangana	7	14957
Jharkhand	1	5000
Karnataka	7	7136
Kerala	6	NA
Madhya Pradesh	5	139.9
Maharashtra	27	23135
New Delhi	1	62000
Orissa	5	8228
Punjab	6	4394
Rajasthan	2	690
Tamil Nadu	8	1873.25
Uttar Pradesh	10	27603
Uttarakhand	7	3094
West Bengal	2	165
<b>Total</b>	<b>148</b>	<b>281122.00</b>

## Summary of projects identified by Facilitation Centre

SECTOR WISE BREAK-UP OF PROJECT COST



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## BEE- SME Program Journey



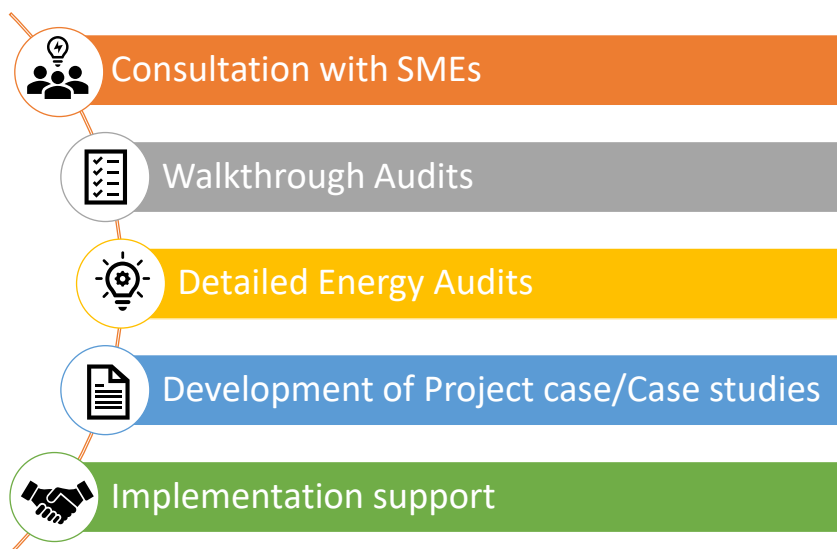
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# URJA Mitra

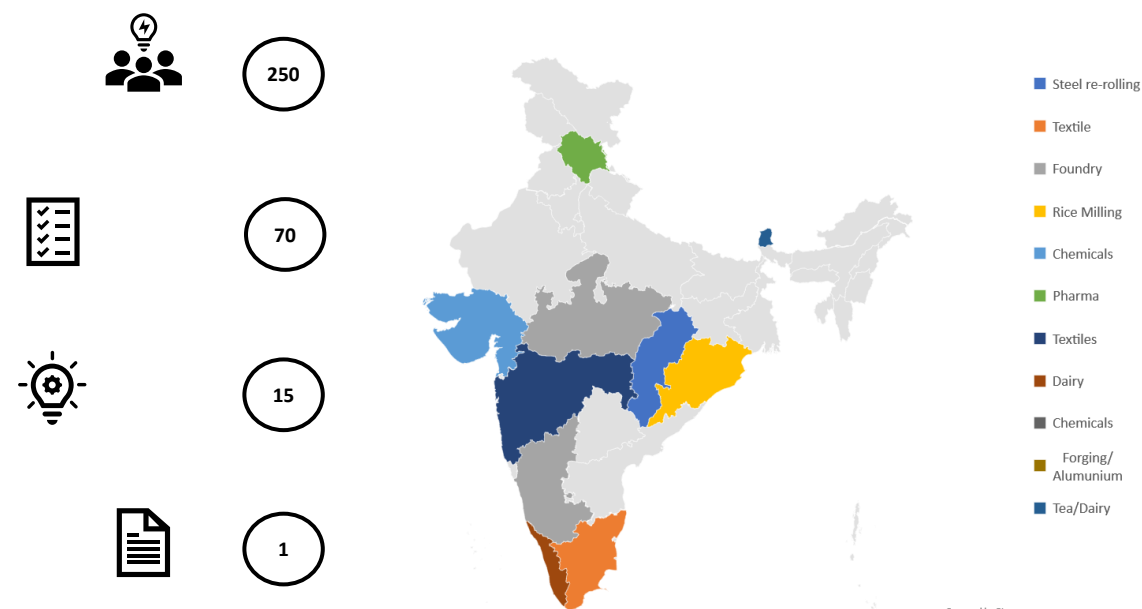
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## URJA Mitra



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## URJA Mitra



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## BEE- SME Program



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## FLCTD

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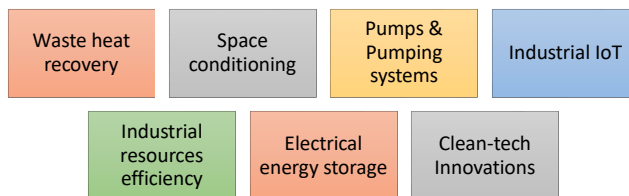
## FLCTD



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- FLCTD is an 8-year project implemented by the United Nations Industrial Development Organization (UNIDO) in collaboration with the Bureau of Energy Efficiency and is funded by the Global Environment Facility (GEF) (\$8 Million).
- FLCTD will define and conduct innovation challenges in below focus areas –



- Facilitate deployment & scaling up of technologies which –
  - Address technology gaps to improve efficiency and reduce emissions.
  - Promote the application of clean energy in selected sectors.

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## BEE- SME Program



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### Upcoming Initiatives

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## Upcoming Initiatives



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- Pilot projects demonstration.
- Scaling-up of EE/RE implementation in remaining sectors.
- Financing Mechanism ADITIEE (Assistance in Deploying Energy Efficient Technologies in Industries & Establishments) scheme.
- Empanelment of URJA Mitra
- Mapping of Local Service Providers (LSPs).
- Implementation Assistance for adoption of ISO 50001.
- Implementation of EC Guidelines.
- Setting-up KIOSKs at MSME Associations.

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## Focussed Clusters (Energy and Resource Mapping)



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Sector	Focussed Clusters				
Foundry	Shimoga	Rajkot	Batala	Howrah	Agra
Forging	Ludhiana	Pune	Bengaluru	Chennai	Delhi
SRRM	Raipur	Bhavnagar	Jalna	VKI Area/ Jaipur	Mandi Gobindgarh - Ludhiana
Paper	Muzaffarnagar, Saharanpur	Vapi	Kashipur	Erode- Coimbatore	Morbi
Chemicals	Ahmedabad	Karnal	Jamshedpur	Ernakulam	Thane
Glass & Refractory	Chirkunda	Ambala	East and West Godawari	Jaipur	Firozabad
Pharma	Margao	Ahmedabad	Ambala	Kolhar Industrial Area, Bidar	Thrissur
Bricks	Bengaluru	Begusarai	Indore	Nagpur	Tripura
Food Processing	Kochi	Pune-Mumbai	Ganjam	Kaithal + Karnal	Jalandhar
Leather	Pallavaram	Kanpur	Jalandhar	Vaniyambadi	Kolkata
Textile	Tirupur	Solapur	Surat	Panipat	Ludhiana



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## EC Guidelines for MSME Sectors



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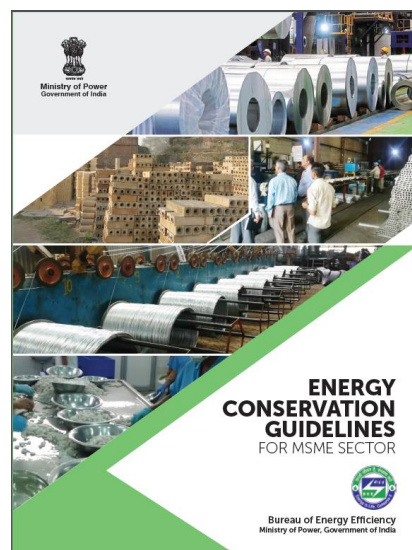


### Industry /Sector

Foundry industry  
Forging industry  
Sponge iron industry  
Aluminium industry  
Brass industry  
Machine tools industry  
Galvanizing and wire drawing industry  
Refractory industry  
Brick industry  
Clay tile industry  
Glass industry  
Chemicals and dyes industry  
Textile industry  
Paper industry  
Limestone industry  
Jaggery industry  
Oil Mill  
Tea industry  
Rice mill  
Ice making industry  
Seafood industry  
Dairy industry  
Food processing industry

### Major process equipment

Cupola, induction furnace  
Oil/gas fired furnace, induction furnace  
Rotary kiln  
Bulk / pit furnace, electrical furnace  
Pit furnace, electrical furnace  
Induction furnace  
Fuel fired furnace, induction heating furnace  
Kilns  
Firing kilns  
Firing kilns  
Melting furnace, annealing hear, reheating furnace  
Boilers, thermic fluid heaters, hot air generators  
Boilers, thermic fluid heaters  
Boilers  
Kilns  
Furnace  
Mill  
Dryer  
Boiler  
Refrigeration system  
Refrigeration system  
Boiler, refrigeration system  
Boilers, thermic fluid heater, refrigeration system



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# BEE- SME Program Journey



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National program on energy efficiency and technology upgradation of MSME  
Outreached 15000 MSMEs; 120 Clusters; 2000 Projects implemented and counting..

