UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

SUSTAINABLE DEVELOPMENT GOALS

Project Implementation Report

(1 July 2022 – 30 June 2023)

Project Title:	*Promoting Market Transformation for Energy Efficiency in Micro, Small and Medium Enterprises*
GEF ID:	*4893*
UNIDO ID:	*120262*
GEF Replenishment Cycle:	*GEF-5*
Country(ies):	*India*
Region:	*SA - Southeast Asia*
GEF Focal Area:	*Climate Change Mitigation (CCM)*
Integrated Approach Pilot (IAP) Programs[1]:	*IF applicable, please select:* *IAP – Commodities, IAP – Cities or IAP – Food Security*
Stand-alone / Child Project:	*Stand-Alone*
Implementing Department/Division:	*ENE / ETI*
Co-Implementing Agency:	*NA*
Executing Agency(ies):	*Ministry of Micro, Small and Medium Enterprises (MSME)*
Project Type:	*Full-Sized Project (FSP)*
Project Duration:	*60 Months*
Extension(s):	*2*
GEF Project Financing:	*USD: 4,465,455*
Agency Fee:	*USD: 446,545*
Co-financing Amount:	*Total US$: 26,860,000*
Date of CEO Endorsement/Approval:	7//2015
UNIDO Approval Date:	12/18/2013
Actual Implementation Start:	8/28/2015
Cumulative disbursement as of 30 June 2023:	*3,931,934.39*
Mid-term Review (MTR) Date:	11/10/2022

[1] Only for **GEF-6 projects**, if applicable

Original Project Completion Date:	8/31/2020
Project Completion Date as reported in FY22:	6/30/2024
Current SAP Completion Date:	6/30/2024
Expected Project Completion Date:	6/30/2024
Expected Terminal Evaluation (TE) Date:	9/30/2024
Expected Financial Closure Date:	3/31/2025
UNIDO Project Manager[2]:	*Mr. Sanjaya Shrestha*

I. Brief description of project and status overview

Project Objective

The project 'Promoting Market Transformation for Energy Efficiency in MSMEs' aims to promote the implementation of energy efficiency in the MSME sector; to create and sustain a revolving fund mechanism to ensure replication of energy efficiency measures in the sector; and to address the identified barriers for scaling-up energy efficiency measures and consequently promote a cleaner and more competitive MSME industry in India. The project has the following objectives:

i) Promote implementation of energy efficiency in the MSME sector, particularly targeting the micro units that constitutes more than 90% and need support for technology induction;
ii) Create and sustain a mechanism that would ensure replication of energy efficiency measures in the sector;
iii) Create a revolving fund by apportioning a part of the revenues from the aggregator (EESL) that would sustain the activities beyond the life of this project; and
iv) Address the identified barriers for scaling-up energy efficiency measures and consequently promote a cleaner and more competitive MSME industry in India. The project is built around 4 substantive components:

- *Component 1: Programme to identify energy intensive clusters and replicable technologies*
- *Component 2: Implementation of Technology Demonstration projects*
- *Component 3: Aggregation of demand for demonstrated technologies in the clusters*
- *Component 4: Financial models to support replication of energy efficiency projects in MSME*

Project Core Indicators		*Expected at Endorsement/Approval stage*
6	*Greenhouse Gas Emissions Mitigated (metric tons of CO2e)*	*806,000*
11	*Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment*	*470*

[2] Person responsible for report content

Baseline
India is the fourth-largest economy in the world in terms of purchasing power parity. The economy is diverse in nature; encompassing modern and traditional agriculture, a wide range of industries, and an ensemble of services. India's GDP figure crossed the $1.8 trillion mark in 2012 and almost 30% of this was generated through industry. While a significant share of this came from large industries, the micro, small and medium enterprise (MSME) sector was equally important in terms of economic contribution towards the economy. On average, the sector contributed around 45% of manufacturing output, 40% of exports, and employed more than 69 million people. The Indian economy has witnessed impressive growth since liberation of the economy in 1991, ranging between 4% and 9.8% up until 2007. *The economy slowed down during the global financial crisis, but has since recovered to around the 8% mark. In 2011-12, real GDP growth fell to a low of 6.5% (Figure 1), with the slowdown being most pronounced in the industrial sector, which has been instrumental in leading the recovery after the global financial slump. The slowdown in GDP growth witnessed over the past year could continue if investment remains weak. Slow growth in the core OECD countries and concern about another global recession could also weigh down growth. However, recent macroeconomic policy decisions, encouraging foreign direct investments and privatizations, and lowering fuel subsidies could boost investment demand and consequently economic growth in 2013-2014 and beyond.* *The 4th census of the Ministry of Micro, Small and Medium Enterprises (2006–07) reveals that there are 26.1 million MSMEs in the country, of which 7.3 million are manufacturing units and 18.8 million are service enterprises. At present, more than 36 million MSMEs are contributing 8% of GDP, 45% of manufacturing and 40% of the country. Most of the enterprises are micro (95%) and small (4.7%), with medium-sized enterprises representing only 0.3% of total units. The MSME sector in India is generally still using first era technologies/processes, resulting in higher energy intensity. In light of the fact that the MSME sector has functioned for five decades within an overly protective economic and industrial framework, a large proportion of Indian MSMEs remain isolated from modern technological developments. They use obsolete, inefficient technologies to utilize commercial energy sources like coal, oil, gas and electricity, leading to wastage of energy, as well as release of high volumes of greenhouse gases and particulate emissions that are harmful to health and damage the atmosphere. Many MSME sub-sectors are energy-intensive, with fuel costs making up 20-40% of the total cost of production. Interventions from multi- and bilateral agencies have supplemented the efforts of the government, particularly in the area of energy efficiency, innovations in technology, information dissemination, outreach, capacity building and training. The MSMEs are also reluctant to buy energy efficient appliances, which are generally more expensive than less efficient options*.

Please refer to the explanatory note at the end of the document and select corresponding ratings for the current reporting period, i.e. FY22. Please also provide a short justification for the selected ratings for FY22.

In view of the GEF Secretariat's intent to start following the ability of projects to adopt the concept of adaptive management[3], Agencies are expected to closely monitor changes that occur from year to year and demonstrate that they are not simply implementing plans but modifying them in response to developments and circumstances or understanding. In order to facilitate with this assessment, please introduce the ratings as reported in the previous reporting cycle, i.e. FY21, in the last column.

Overall Ratings[4]	**FY23**	**FY22**
Global Environmental Objectives **(GEOs)** /	*Satisfactory (S)*	*Satisfactory (S)*

[3] Adaptive management in the context of an intentional approach to decision-making and adjustments in response to new available information, evidence gathered from monitoring, evaluation or research, and experience acquired from implementation, to ensure that the goals of the activity are being reached efficiently

[4] Please refer to the explanatory note at the end of the document and assure that the indicated ratings correspond to the narrative of the report

Development Objectives **(DOs)** Rating		

The progress is considered 'SATISFACTORY' since in spite of the negative impacts that the MSMEs had due to COVID pandemic, following achievements were achieved:-

- The project has successfully identified 12 clusters where significant progress has been made. A comprehensive survey was conducted, resulting in 840 surveys, 83 energy audits, and 80 baseline energy audits completed in these selected clusters. This detailed assessment forms the foundation for further interventions.
- Within these clusters, more than 70 Local Service Providers (LSPs) have been identified for the implementation of the cutting-edge screed out technology under this project. Currently, 25 LSPs are already on board, and implementation is actively underway to leverage this technology's benefits.
- A comprehensive list of 36 energy-efficient (EE) technologies has been identified for implementation across various sectors. In tandem with this, 32 Excel-based Quick Estimation Tools (QETs) have been developed to facilitate the assessment and evaluation of energy-saving potential. Of these, 11 QETs are available online, enabling easy access and utilization.
- To further support the implementation of these technologies, a toolkit has been prepared for 22 specific technologies. This toolkit serves as a comprehensive guide for MSMEs, offering valuable insights and practical information to enhance their understanding and adoption of the identified EE technologies.
- Building upon the findings of the baseline energy audits conducted at demonstration units, technology specifications have been finalized for 60 demo units. This step ensures that the selected EE technologies are tailored to meet the unique requirements and characteristics of the MSMEs.
- Progressing towards implementation, installation for 19 EE technologies has been successfully completed in 33 MSME units. This tangible progress showcases the project's commitment to driving real change and energy efficiency improvements at the ground level.
- These achievements highlight the project's robust efforts in identifying, preparing, and implementing a range of EE technologies across diverse sectors. By leveraging the knowledge gained through comprehensive surveys, energy audits, and technology assessments, the project aims to achieve substantial energy savings and foster a sustainable future for MSMEs.

Implementation Progress **(IP)** Rating	*Moderately Satisfactory (MS)*	*Moderately Satisfactory (MS)*

Implementation Progress is MODERATELY SATISFACTORY since more than 52% of the implementation work has been accomplished and ground for the up-scaling and EMRF has been prepared

Overall **Risk** Rating	*Moderate Risk (M)*	*Moderate Risk (M)*

MODERATE RISK stands of implementation in view of the newly designed EMRF modalities and in view of SIDBI being proposed to take up the steering of the EMRF

II. Targeted results and progress to-date

Please describe the progress made in achieving the outputs against key performance indicator's targets in the project's **M&E Plan/Log-Frame at the time of CEO Endorsement/Approval**. Please expand the table as needed.

Please fill in the below table or make a reference to any supporting documents that may be submitted as annexes to this report.

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
Component 1 – Programme to identify energy intensive clusters and replicable technologies				
Outcome 1: Identification of Energy Intensive Clusters				
Output 1.1: Objective and transparent mechanism for cluster level technology benchmarking established	Study capturing the best practices, incentive structures, implementation process, guidelines and industry feedback.	0 – Lack of study.	Study complete and available for decision-makers for investment	Progress in previous reporting periods: • 12 cluster identified on PAN India basis • 840 survey, 83 energy audits and 80 baselines energy studies at demo units were completed in the selected cluster. • Cluster level benchmarking report have been prepared • Gap Assessment study completed Progress in this reporting period: - Completed
Output 1.2: Increase ability of Local LSPs (EE Products and Service Providers) to Provide Assistance and Advice to MSMEs within the sectors	Existence of a comprehensive tool kit for the identified technologies to help the implementation process.	Lack of a tool kit for the identified technologies.	1 tool kit prepared and disseminated; Identified commonly replicable technical interventions through equipment audits; Developed technical specifications of the identified interventions.	• Progress in previous reporting periods: • More than 70 LSP were identified for the screed out technology under this project. • 25 of them are already on board and implementation is on progress in this regard • More than 36 EE technologies have been identified and proposed to the WTG and PSC • 32 excel based QET have been prepared, 11 QET is available online ad 17 other technologies are in process of uploading online • Toolkit prepared for 22 technologies • As per the baseline energy audit conducted at Demo units, technology specifications at 60 Demo units have been finalised Progress in this reporting period: • 30 LSP were identified for the screened-out technologies under this project.

				• 17 QET have been upgraded for online portal and are available on the dedicated website. • Toolkits prepared for 10 technologies • Bidding process with the finalised specifications have been demonstrated and procurement carried out for 21 technologies in 38 demo units.
Component 2 – Demonstration projects and aggregation of demand for demonstrated technologies in the clusters.				
Outcome 1: 1. Demonstration of Energy Consumption Reduction at the Cluster Level 2. Capacity built and awareness raised as a result of the demonstration projects.				
Output 1.1: Thirty-Five (35) energy efficient technologies demonstrated in industrial enterprises (minimum 2 units to be covered for each technology);	MSME units implementing technology demonstration of the identified technologies.	No demonstration of selected technologies provided and thus minimal/ practically non-existent replacing of energy inefficient systems with efficient ones.	35 energy efficient technologies demonstrated (2 units for each technology).	• Progress in previous reporting periods: • More than 45 technologies were identified in the selected cluster where in PSC has approved 36 technologies till June 2022. • Installation for 19 EE technologies completed in 33 MSME units • More than 110 EE equipment are operational in the MSME units • Demonstration of another 11 technologies are under progress Progress in this reporting period: • 2 EE technologies have been identified and approved by the WTG and PSC.. • Procurement of 9 technologies with finalised specifications are underway • Demo for 2 EE technologies completed in 5 MSME units • Upscaling of two technologies have also been demonstrated and completed in two clusters.
Output 1.2: 100 Local Service Providers (LSPs) and technical personnel of MSME units trained	Training of LSPs and technical personnel of MSMEs.	0 – Lack of training for technical personnel and LSPs in these clusters.	100 LSPs and technical personnel of MSMEs trained.	• Progress in previous reporting periods: • Survey of more than 840 MSME units were covered and more than 100 LSP were surveyed. • Multiple vendor meets were conducted during this time and during the on-ground implementation of the technologies-assistance and handholding to the MSME units are been provided. • Report on LSP survey and gap assessment for eight cluster have been prepared Progress in this reporting period:

				• Additionally, multiple vendor meets were conducted during the on-ground implementation of the technologies- assistance and handholding of plant operators have also been carried out for the MSME units. • Exhibition cum workshops have also been completed in four clusters.
Component 3 – Financing models to support replication of energy efficiency projects in MSMEs.				
Outcome 1: Establishment of sustainable and effective financial mechanisms.				
Output 1.1: Officials from government and private banks/ financial institutions sensitized on promoting EE equipment and trained on evaluating and investing in industrial EE projects;	Number of officials trained from government and private banks/ financial institutions (FIs).	No officials trained.	Officials from both government and private banks are sensitized on promotion of EE equipment and evaluating and investing in industrial EE projects.	• Progress in previous reporting periods: • Various consultation meetings held on structure and modalities of EESL MSME Revolving Fund (EMRF) with financial institutions, Banks MoMSME and other stakeholders • A detailed document on EMRF have been prepared covering various options for creation of EMRF fund & submitted to UNIDO • Draft Training manual for imparting training to Govt officials have been prepared. Progress in this reporting period: • 10 Nos consultation meetings, round tables are held on finalisation of structure and modalities of EESL MSME Revolving Fund (EMRF) with financial institutions, Banks, MoMSME and other stakeholders. EESL hired services of SBI Capital Markets Limited for structuring of EMRF and legal, commercial compliance requirement • A detailed term sheet has also been prepared by SBICAP on partnership modalities between EESL and SIDBI on EMRF. • EESL held meetings with SIDBI, NSIC and other financial institutions. Energy Service Companies (ESCOs) on EMRF. • A detailed document on EMRF has been prepared for creation of EMRF fund & submitted to UNIDO •

Output 1.2: A tailored portfolio of innovative financial products for MSMEs' investment in energy efficiency projects facilitated;	Establishment of the EESL MSME Revolving Fund with successful repayments occurring; Portfolio of financial products.	No Revolving Fund exists; No tailored portfolio of financial products for MSMEs to allow for ESCO model financing.	Fund established and operating with repayments; Tailored portfolio of financial products existing.	• Progress in previous reporting periods: • Innovative business model for demo and replication has been implemented successfully • Repayment from participating MSME unit have been started. • Progress in this reporting period: • More than 350,000 USD of payment has been received from MSME units against DEMO projects and replication of EE projects of two technologies. implemented. • Energy saving of about 1989 tonne of oil equivalent has been achieved through DEMO projects.

III. Project Risk Management

1. Please indicate the overall project-level risks and the related risk management measures: (i) as identified in the CEO Endorsement document, and (ii) progress to-date. Please expand the table as needed.

Describe in tabular form the risks observed and priority mitigation activities undertaken during the reporting period in line with the project document. Note that risks, risk level and mitigations measures should be consistent with the ones identified in the CEO Endorsement/Approval document. Please also consider the project's ability to adopt the adaptive management approach in remediating any of the risks that had been sub-optimally rated (H, S) in the previous reporting cycle.

	(i) Risks at CEO stage	(i) Risk level FY 22	(i) Risk level FY 23	(i) Mitigation measures	(ii) Progress to-date	New defined risk[5]
1	Political Risk: Changes in government priorities resulting in reduced support for the project, delays in activities and overall ineffectiveness of the interventions	Low risk (L)	Low risk (L)	The project seeks to transform the market for deployment of efficient technologies in the MSME sector. The MSME sector interventions are considered a high priority of the Government as spelled out in the XII Five Year Plan and articulated in the policy and planning of the Ministry of MSME and BEE. Thus, the risk of a drastic change is unlikely. To mitigate this risk the Project Steering Committee will be closely involved in the project's activities, giving guidance and advice throughout the identification, selection, and intervention processes.	The progress of the project has been closely monitored and supervised through the timely intervention of the Working Technical Group (WTG) and the Project Steering Committee (PSC). Both entities have played crucial roles in ensuring the smooth advancement of the project. To maintain transparency and facilitate effective decision-making, two PSC meetings and one WTG meeting were conducted within the specified time frame. These meetings served as important platforms for reviewing the project's progress, discussing challenges, and	☐

[5] New risk added in reporting period. Check only if applicable.

					providing necessary guidance and directions. Recognizing the significance of on-ground observations, a visit by personnel from the Ministry of Micro, Small, and Medium Enterprises (Mo-MSME) to the demonstration project site was arranged. This visit allowed for firsthand assessment and evaluation of the project's implementation and its impact on the MSME units. The COVID-19 pandemic has had a severe impact on MSME units, and the PSC has acknowledged and taken cognizance of this impact on the clusters. Understanding the challenges faced by the MSMEs due to the pandemic, the PSC has incorporated measures to address and mitigate the adverse effects of COVID-19 on the project's implementation. Through the combined efforts of the WTG, PSC, on-site visits, and consideration of the pandemic's impact, the project has demonstrated its commitment to effective project management, adaptability, and ensuring the well-being of the MSME units involved. These interventions have played a vital role in monitoring the project's progress and ensuring that it continues to move forward despite the challenges posed by COVID-19.	
2	Technical risk: Lack of energy savings from deployment of efficient technologies	Low risk (L)	Low risk (L)	The project builds upon the work done in the past where such technologies have been identified based on field studies and cluster level energy audits. Moreover, the demonstration projects to be conducted using the GEF grant will ensure that only those technologies where the technical performance risk is minimal are taken up. UNIDO and EESL will ensure this by leveraging technical expertise from all stakeholders, including industry, government and others.	The project has accomplished a successful demonstration of 19 energy-efficient (EE) technologies in 33 MSME units. The implementation of these technologies has yielded positive results, with measured energy savings surpassing the initially proposed savings in several demonstration units. This outcome highlights the effectiveness and reliability of the selected EE technologies. Furthermore, the project has successfully replicated two of the demonstrated technologies through bulk procurement. The	☐

					MSME associations have readily accepted these replicated technologies, acknowledging their potential benefits and cost-effectiveness. This positive reception from the associations further validates the project's efforts in promoting and implementing energy-efficient solutions. Following the installation of the EE technologies, comprehensive monitoring and verification (M&V) procedures were carried out. These M&V activities aimed to evaluate the performance of the technologies and measure the achieved energy savings. Encouragingly, all cases yielded positive results, confirming the successful implementation and effectiveness of the EE technologies in delivering the anticipated energy savings. The combined accomplishments of the successful technology demonstrations, replication efforts, and favorable M&V results signify significant progress and success for the project. These achievements demonstrate the project's ability to identify and deploy efficient technologies that can yield tangible energy savings in MSME units.	
3	Sustainability risk: The risks envisaged here include inability to scale up implementation and lack of financing beyond the project period.	Low risk (L)	Low risk (L)	EESL has committed financial resources to ensure that replication occurs beyond the project's implementation period. The EMRF to be established will also ensure that the best practices of project design and implementation are replicated in other clusters. To this end, the project proposes to use a combination of risk mitigation measures, such as opening of irrevocable revolving Letters of Credit, ESCROW arrangements, and/or taking advance post-dated cheques to ensure that the SME unit which avails of the scheme, does not default on payment.	The project has achieved significant cost reduction through the execution of two bulk procurements. Specifically, 500 PLCs based automation systems have been acquired for jet dying machines, while 600 FRP fans have been procured. These large-scale procurements have effectively reduced costs and contributed to the overall efficiency of the project. To ensure comprehensive stakeholder involvement and garner valuable insights, the project team has conducted multiple consultation meetings on the Energy Management and Resource Framework (EMRF). These meetings have served as platforms for engaging with	☐

				In addition, the Partial Risk Sharing Facility (PRSF) and Partial Risk Guarantee Fund (PRGF) are being set up by the World Bank and BEE, respectively; these funds would provide risk cover of up to 50% of the loan value and would therefore provide mitigation for financial risks. EESL is the transaction advisor to the World Bank, as well as BEE for the two funds. Thus, EESL is well placed to ensure that the above outlined payment security mechanisms are put in place so that the risks associated with EMRF re-payment are duly mitigated.	various stakeholders, allowing for their valuable inputs and suggestions to be incorporated into the framework's development. Furthermore, the team has diligently worked on the draft structure of the EMRF, outlining the key components and mechanisms necessary for its effective implementation. This draft serves as a blueprint for the subsequent stages of the framework's establishment, ensuring a clear direction for the project's replication phase. Recognizing the importance of risk mitigation and financial security, the project team has engaged in discussions with the PRSF (Project Risk Sharing Facility) team. The objective of these discussions has been to explore the inclusion of PRSF guarantees into the replication phase of the project. By incorporating PRSF guarantees, the project aims to enhance financial stability and provide a solid foundation for successful replication efforts.	
4	Financial risk: The risk of non-payment for investments made by EESL/ESCOs	Medium	Medium	UNIDO and EESL will not only provide training to industries for building their capacity on the long-term financial benefits of investing in energy efficiency, but the project will also leverage risk mitigation measures that are being set up by BEE, such as the Partial Risk Guarantee Fund under NMEEE. In addition, BEE and the World Bank, using GEF and Clean Technology Fund resources, is creating a Partial Risk Sharing Facility that will be managed by SIDBI with a focus on the MSME sector. By leveraging these instruments, the proposed project will reduce the financial risk of investment.	The project team has made persistent efforts to develop an innovative business model that would streamline and expedite the up-scaling process. In this regard, UNIDO, EESL, and SIDBI have engaged in multiple discussions and collaborated closely to devise an effective plan. Through these collaborative efforts, the team has successfully drafted the structure of the fund flow for the Energy Management and Resource Framework (EMRF). This draft outlines the financial mechanism that will facilitate the allocation and distribution of funds within the framework, enabling the smooth progression of the project's up-scaling activities.	☐
5	Climate change risk: The project	None	None	While no climate changes risks are foreseen, the project will	Despite the adverse impact of the COVID-19 pandemic on the	☐

	is not subject to any climate change risks.			mitigate any potential risks to project demonstration sites by include criteria related to such risks in the cluster surveys, and if a risk is identified, develop a mitigation strategy before implementation begins.	project's progress, the dedicated project team has managed to maintain constant communication with various units involved. This continued interaction and coordination have been instrumental in overcoming the challenges posed by the earlier COVID-19 situation. As a result, the team has successfully completed the procurement of several crucial technologies and ensured their supply even during the challenging period of lockdown.	

2. If the project received a sub-optimal risk rating (H, S) in the previous reporting period, please state the actions taken since then to mitigate the relevant risks and improve the related risk rating. Please also elaborate on reasons that may have impeded any of the sub-optimal risk ratings from improving in the current reporting cycle; please indicate actions planned for the next reporting cycle to remediate this.

Not Applicable

3. Please indicate any implication of the **COVID-19** pandemic on the progress of the project.

- ✓ Despite facing execution challenges, UNIDO and EESL team has made significant progress in the cluster by conducting remote surveys and maintaining regular communication with the units. A robust screening process is in place to identify suitable health units for implementation, ensuring effective utilization of resources.
- ✓ Field-level activities were temporarily halted due to the impact of the COVID-19 pandemic. However, with MSME units gradually recovering, there is a positive outlook for the project's progress. The resumption of business activities signals a renewed momentum for the project.
- ✓ The Demo Project, which had initially experienced setbacks due to revenue loss, workforce unavailability, low demand, and disruptions in the supply chain, is now witnessing the gradual revival of new units. This development is an encouraging sign for the project, showcasing the resilience and adaptability of MSMEs.
- ✓ While some confirmed units have withdrawn their participation or requested a delay due to the prevailing situation, the project team has been engaging in fresh discussions with other units to explore alternative partnerships. This proactive approach ensures the steady progress of the project and maintains the momentum.
- ✓ Considering the current circumstances, many units are hesitant to make significant investments. However, the project's business model, with its low initial capital requirements and potential for manpower reduction through technology adoption, instills confidence in the MSMEs. This factor enables units to consider adopting energy-efficient technologies, even during challenging times.
- ✓ Some units are facing severe challenges in sustaining their businesses during the pandemic, and the prolonged impact of COVID-19 may lead to closures. As a result, the project team is diligently filtering and identifying the most viable and resilient units for implementation, ensuring optimal outcomes despite potential reductions in cluster size.
- ✓ Travel restrictions during COVID-19 lockdowns have caused delays in equipment delivery and installation. However, the project team remains vigilant and continuously develops strategies to mitigate these challenges. Their persistent efforts have resulted in the successful installation of over 100 equipment units during this pandemic situation.

- ✓ The execution of DEMO projects is critical for replication and market transformation. While delays have been experienced, the gradual recovery indicates positive progress. However, the severity of a potential third wave will influence the execution of demand aggregation and technology replication efforts, necessitating continuous monitoring and adaptation.
- ✓ Despite the obstacles posed by the pandemic, the project team's resilience, adaptability, and proactive measures have allowed for continued progress. By navigating challenges and leveraging opportunities, the project remains committed to achieving its objectives of promoting energy efficiency and supporting the recovery and growth of MSMEs in the cluster.

4. Please clarify if the project is facing delays and is expected to request an **extension**.

The GEF-5 Project team, consisting of EESL, UNIDO, and the MoMSME team, has brought attention to the challenges faced in extending the project due to the profound impact of the COVID-19 pandemic on project activities over the past two years. During the 9th Meeting of the PSC committee, it was highlighted that the project suffered a setback of over 18 months in critical implementation time due to delays in procurement and technology implementation. Consequently, UNIDO requested a project extension of 22 months, until June 30th, 2024, in order to ensure the completion of all affected project deliverables in light of the pandemic. The PSC committee approved the no-cost extension, allowing the project to continue until the specified date.

One of the vital tasks crucial for the expansion of energy-efficient technology is the finalization of the EMRF (EESL MSME Revolving fund) structure. The project team has successfully completed the EMRF structure and presented it to the PSC for guidance during the 10th PSC meeting. However, in order to make the business model more competitive and attractive it is now proposed that SIDBI takes the lead in running the EMRF. In view of the higher cost of financing from EESL, the Chair of the PSC has proposed certain changes to the proposed structure and has requested revisions. Following the approval of the revised EMRF, EESL and SIDBI will seek internal Board Approval for the EMRF and proceed to institutionalize the framework for up-scaling phase activities which is demanding additional to work out the modalities.

Given the delay in obtaining approval for the EMRF structure, it is recommended to extend the project for an additional period **of 14 months, until August 2025**. This extension will facilitate the completion of the up-scaling of demonstrated technologies in 400 MSME units, as planned and to be presented at the upcoming PSC meeting.

5. Please provide the **main findings and recommendations of completed MTR**, and elaborate on any actions taken towards the recommendations included in the report.

- **Project design assessment**

1. Project Design

Original design ('one of a kind') is highly relevant to the country context and has the potential to create awareness and capacity for market transformation. It seems that India has the perfect preconditions for such a challenging project. First of all, India has the size (number of clusters and MSMEs in these clusters) to become an attractive market for suppliers of EE products and technologies. EESL is a well-known and robust procurement expert with a proven track record for market development (energy-efficient lightning) and has already showcased the success of 'bulk procurement procedures'. With this specific design, there are no known examples for such an EMRF.

The project outputs and activities are in line with GOI and MoMSME priorities as well as with UNIDO's focus on SDG 9 and GEF strategies on GHG reduction. All interviewed stakeholders have stressed the need for this kind of project and that outcomes will be used by MoMSME, BEE, SIDBI to be included in their respective finance mechanisms. There are several funding schemes for MSMEs in place, but none of them is transforming the market for EE technologies.

The idea of an EMRF and the following market transformation is highly relevant for MSMEs, though not fully recognized yet. The majority of MSMEs sees only the first investment (purchase cost) when looking for new equipment and technologies. The idea of considering running and lifetime costs is not a common practice. The purpose of a given performance guarantee, including an AMC and link the fulfilment to the repayment is new to the market and could drive the change. Most of the equipment suppliers also do not have their focus on selling performance and do not utilize the life cycle costs as a USP.

On the other hand, highly energy-efficient equipment has not a big market yet in India. Therefore project design to foster market transformation is also highly relevant for suppliers of high quality (and more expensive) equipment.

Project components and activities are well-targeted, clear and consistent, but not all components are fully visible yet. Monitoring of the savings as an outcome of the EE equipment implementations is part of the whole scheme and already included in procurement procedures and contracts. Therefore the real savings as per project objectives can be easily monitored. The project has also shown flexibility and several components and activities have been adapted to actual needs.

2. Project Results Framework

Project components and activities are well-targeted, clear and consistent, but not all components are fully visible yet. The Project Results Framework, which includes OVIs at the outcome level, is well designed. Feasible indicators are provided for outputs; most of the targets provided are consistent with the activities described. The resulting chain from outputs, outcomes to impact is logical and SMART.

For a few activities, proper indicators are missing, and means for verifications are not clear. For example, for output "2.1.2 Peer to peer network established" a SMART target is not given. For output 2.1 "100 local service providers … trained" it is not clear how monitoring can be done, as not all the activities planned here are under control of project management. The same-s will be the case for Output 2.3.1 "Investments… facilitated". If the project is successful, many investments will happen without knowing of project team.

- **Project performance and progress towards results**

1. Relevance

The project is very much relevant to the target group MSMEs and – as explained in the country context – MSME is the appropriate target group. Once the business model is established, it has the capacity to solve several issues that hinder a stronger utilization of EE technologies in Indian MSMEs.

The main problem that MSMEs are facing is a lack of capacity to handle new technology. They usually do not have enough time and technical knowledge to actively search for EE technologies and to finance it. Secondly, there is mistrust not known/not established equipment and third locally credible vendors and suppliers are not available in most clusters.

The Project is addressing all those issues and can drive the change.

The original objectives have not been revised and are still very much valid in today's context, RT sees no need for changes in those objectives itself, but a need to refocus on the given Project Result framework.

The project has a strong focus on the energy-intensive cluster; those clusters have been well selected, including those with little or no previous similar activities. At the project start, much effort was put into cluster selection itself and to develop a proper cluster selection matrix. This was discussed and agreed during PSC meetings, as sufficient information about those clusters did not exist. The original project document did not include this component assuming that stakeholders (MoMSME and BEE) have information at hand.

The actual status shows clearly that one of the main criteria for success in a specific cluster is to identify cluster leaders and influencers. Those clusters with proactive associations and forthcoming industries are more likely to adopt new business models.

2. Effectiveness and progress towards expected results

The cluster studies and the energy audits have been done. 13 technology adapted to the suitable clusters have been selected and jointly agreed during the PSC meetings. The criteria for the selection of technologies to be adapted to be suitable for future EMRF. There are no toolkits available for the technologies identified. However, only the compressors are in the testing phase, and the remaining toolkit development is not cleared among the stakeholders. Training of local service providers (LSP) and technical personnel of MSMEs are in the early stages, and proper planning will be required to achieve the target. M&V protocols have been finalised and various activities have been started, but a structured approach to develop peer-to-peer network is not visible and not institutionalized' yet. Only two pilots have been implemented. Through these pilots, it is evident that the technical specification and performance guarantee will push proven technologies to a new limit.

Upscaling of the project is not yet started, and it is unlikely that 400 MSMEs will invest in the given project period. Project components and activities are well-targeted, clear and consistent, but not all components are fully visible yet. It is not clear how all the required information will be compiled and documented.

The projects focus on energy-intensive cluster and clusters have been well selected, including those with little or no previous similar activities is appropriate. MSMEs in those clusters are definitively the correct target group, outreach to MSMEs is yet to start.

Profile of the service providers represents various sizes and types of services, and connects various service providers and creates business opportunities for all beneficiaries. The project looks in proven technologies only but sets new standards (performance-based) for these technologies. Only those suppliers who are capable and willing to undergo the EESL bidding procedures will benefit. But in the long run – once this concept is proven – it can be expected that more suppliers understand the value and see the market the project is providing and will join the programme

MSME and LSP actively participating in project activities are benefiting from programme components. However, presently, outreach has to be extended to a large number of members of industries.

3. Conclusion

The project has seen a drastic delay in the starting phase (contract with executing partner and PMCs), once this was solved the work could pick up a good momentum and much progress has been made in the last 18 months. Even though the project is almost two years behind schedule and is suffering from some flaws in the cooperation (internal communication and accounting rules) that are hampering efficient project execution. Several changes at output level (e.g. cluster level and video graphic-studies, energy audits) have been discussed between stakeholders and jointly agreed in PSC. With this project, management has shown flexibility to meet stakeholder needs, but also bonded resources, which are not directly contributing towards the main project objectives. For instance, 60 audits have been conducted, which is not part of the project objectives. It has been conducted for the demand from one of the stakeholders.

It is visible that the brilliant concept for the creation of '...an innovative Business Model…' with its multiple aspects (see chapter V) is not fully understood by all stakeholders, nor is the framework for this model clear and mutually agreed. So, it needs some extra effort and time to develop the model, make sure it is understood by all involved parties. Only then, it can be tested, approved and professionally marketed to become a real market changer.

At the current stage, the project has built up a good base to become successful at the end and to be able to achieve most Objectively Verifiable Indicators (OVI) by utilizing the remaining budget efficiently. It is strongly recommended to refocus on the major outcome of the project, i.e. promote market transformation towards energy efficiency in the MSME sector by creating and sustaining a revolving fund mechanism to ensure replication. It is needed to streamline all activities towards this objective. Testing, final design, and promotion of the business model is core to achieve the market transformation. Therefore, more time is needed. In this context, a no-cost project extension can be strongly recommended by the review team. For full upscaling, testing and promotion of the business model 1,5 to 2 years will be necessary.. This finding is backed up by the feedback given by all stakeholders.

4. Rec*ommendations*

Presently, there is a need for the project partners to have a planning meeting at the earliest to refocus on main project objectives and for a joint decision on:

- efficient utilization of remaining funds within the given time limits, without being able to achieve all outcomes or
- 'redesigning' of the project with realistic and appropriate timeframe and efficient utilization of the remaining budget and asking for a project extension.

After a joint decision is made a discussion with GEF focal point will be initiated.

Few actions towards MTR recommendations were undertaken in the form of the following during this reporting period-

- The Workplan has been reviewed and adjusted to align with the current situation, with a particular focus on the remaining project timeline. Special efforts have been made to expedite the pilot project and refine the financial model.
- Resources are now concentrated on the most promising clusters and technologies to establish credible pilot projects. The primary emphasis is on swift on-ground implementation and the dissemination of best practices and pilot projects.
- The creation and publication of easily replicable pilot projects are expected to encourage adoption across various industries, clusters, and sectors.
- A full-cycle test of the business model has been conducted to gain insights into the operational costs of the EMRF, allowing for the refinement of modalities.
- Marketing materials for the project have been professionally prepared to effectively showcase results and raise awareness.
- Project stakeholders are coordinated effectively and PSC meetings are planned accordingly

IV. Environmental and Social Safeguards (ESS)

1. As part of the requirements for **projects from GEF-6 onwards**, and based on the screening as per the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), which category is the project?

☐ Category A project

☐ Category B project

☐ Category C project

(By selecting Category C, I confirm that the E&S risks of the project have not escalated to Category A or B).

Notes on new risks:

- *If new risks have been identified during implementation due to changes in, i.e. project design or context, these should also be listed in (ii) below.*
- *If these new/additional risks are related to Operational Safeguards # 2, 3, 5, 6, or 8, please consult with UNIDO GEF Coordination to discuss next steps.*
- *Please refer to the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP) on how to report on E&S issues.*

Please expand the table as needed.

	E&S risk	Mitigation measures undertaken during the reporting period	Monitoring methods and procedures used in the reporting period
(i) Risks identified in ESMP at time of CEO Endorsement	NA	NA	NA
(ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box)	NA	NA	NA

V. Stakeholder Engagement

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes** regarding engagement of stakeholders in the project (based on the Stakeholder Engagement Plan or equivalent document submitted at CEO Endorsement/Approval).

Project Steering Committee (PSC) Stakeholders:
UNIDO as Implementing Agency, Ministry of MSME (MoMSME) as Lead Executing Agency, Bureau of Energy Efficiency (BEE) as Guiding Agency, Energy Efficiency Services Limited (EESL) as Executing Partner, GEF Operational Focal Point-MoEFCC, Small Industries Development Bank (SIDBI)

10th Meetings of Project Steering Committee were held under the Chairmanship of AS&DC-Mo-MSME to review the project progress and approve the energy efficient technologies to be demonstrated. The committee approved 02 technologies in the 10th PSC meeting. **(Annexure V 1.1)**

Working Technical Group (WTG) Stakeholders:
(Ministry of MSME (Mo-MSME), Bureau of Energy Efficiency (BEE), Energy Efficiency Services Limited (EESL), Small Industries Development Bank (SIDBI) and other National Experts approved by PSC)

8th meetings of Working Technical Group (WTG) under were also held to review and endorse the prospective energy efficient technologies. In 8th WTG meeting, 3 technologies were presented before the WTG; and 2 technologies were endorsed for the further consideration of PSC.

Private Sector Stakeholders:
(Industrial Associations, MSME Industries, technology suppliers, other local experts)
Multiple meetings held with cluster level stakeholders (Industrial Associations, MSME units, technology suppliers etc.) for their effective engagement and speed up the ground level activities. Additionally, meetings held with Energy Service Companies (ESCOs) for finalize the role of ESCOs during upscaling of activities. Roundtable conference has also conducted with cluster associations and ESCOs on EMRF structure. Minutes of meetings are annexed for the reference. **(Annexure V 1.2)**

2. Please provide any feedback submitted by national counterparts, GEF OFP, co-financiers, and other partners/stakeholders of the project (e.g. private sector, CSOs, NGOs, etc.).

Following are the summary of feedback from national counterparts, project management consultants, other partners and beneficiary industries which has emerged from various consultation and discussion sessions-.

- The procurement process, including technical requirements, warranty, and maintenance contracts, has been designed to achieve several project objectives, such as training of technical staff by local service providers and development of more reliable and durable equipment. This approach is likely to contribute to project sustainability.
- The project has shown flexibility and the ability to adapt to the actual and local needs of beneficiaries. For example, the payment and repayment modalities have been adapted to enable MSMEs to gain advantage from the taxation system.
- By creating demand in specific clusters, local service stations become viable for vendors (economy of scales), which ensures sustainability. This also leads to local market demand creation by capacitating vendors and creating locally available service providers.
- Different MSMEs in different clusters and sectors rate the business model and its benefits in a very diverse manner. Therefore, it has to be explained and marketed in a specific way to fit local MSMEs needs.
- The project plan should be reviewed and adapted to the actual situation, especially focusing on the remaining time for project work and the main objective of the project.
- Creation and publication of "easy to copy" demonstration projects will foster uptake in other industries, clusters, and sectors.
- More visibility should be given to the innovative business model. Therefore, enough time for testing and improving the planned model is needed. Once all benefits are clear, and viability can be proven, an easy-to-understand information brochure should be prepared to ensure up-scaling.
- Focus on professional marketing of project results to create more awareness.
- Payment guarantee, i.e., bank guarantee, has been highlighted as one of the major challenges by the cluster level stakeholders.
- EESL is collaborating with SIDBI for providing financial support on up-scaling the project in 400 MSME units.
- The Project Logical Framework and Workplan should be reviewed and adapted to the actual situation especially focusing on the remaining time for project work and the main objective of the project
- GEF-OFP representative, while making visits to two representative clusters in Surat Textile and Jorhat Tea cluster during the month of November 2022 has expressed satisfaction on the overall progress and achievements of the projects. This is reflected in the mission report shared by them which is annexed in **(Annexure V 2.1 & 2.2)**

3. Please provide any **relevant stakeholder consultation** documents.

- *10th Draft Project Steering Committee Minutes* **(Annexure V 1.1)**
- *Association/ Technology suppliers meeting.* **(Annexure V 1.2)**

VI. Gender Mainstreaming

1. Using the previous reporting period as a basis, please report on the **progress** achieved **on implementing gender-responsive measures** and **using gender-sensitive indicators,** as documented at CEO Endorsement/Approval (in the project results framework, gender action plan or equivalent),.

The project is dedicated to upholding gender equality at every stage of its implementation. It actively promotes the inclusion and participation of women by encouraging their involvement in the selection of experts and consultants for training and capacity building activities. Project stakeholders are urged to nominate women employees to actively participate in the project. Additionally, efforts are made to include gender focal points from relevant ministries in Project Steering Committee meetings whenever feasible. The progress made in implementing gender-responsive measures is evident in the following instances:

a) Although the MSME sector in India has limited female representation, there are active women office bearers in industrial associations and women entrepreneurs who play significant roles within this project, contributing their expertise and perspective.

b) The EESL PMU recruitment drive was conducted in a gender-neutral manner, resulting in the appointment of a woman as a cluster lead in the Surat Textile Sector

c) The EESL PMU team has received invaluable support from women holding managerial positions in various MSME units and EESL's vendor partners. Several vendor partners of EESL boast capable women who excel in commissioning technology on-site and providing training to MSME staff.

d) The commercial aspects of the project are exclusively supported by women in EESL's finance and commercial team, highlighting their integral role in ensuring the project's success.

d) A dedicated official vehicle has been arranged to ensure the safety and security of our female team member, demonstrating our commitment to creating a conducive work environment.

e) Notably, one of the selected clusters, the Assam tea cluster, predominantly comprises a workforce of women, emphasizing the project's impact on empowering women in traditionally male-dominated sectors.

Through these visible instances of progress, overall the project endeavours to create an inclusive environment that empowers and supports women, promoting their active participation and leadership across various sectors and functions.

VII. Knowledge Management

1. Using the previous reporting period as a basis, please elaborate on any **knowledge management activities / products**, as documented at CEO Endorsement / Approval.

Following knowledge product has been produced and activities has been carried out during the specified period-

a) **Pamphlet:**
Pamphlets depicting the key features of the technology (ADM, Combustion control and LGHR has been formulated and submitted. **(Pamphlet in Annexure VII 1.1 & VII 1.2 & 1.3)**

b) **Case Study:**
ADM and Combustion control **(All Case Study in Annexure VII 1.4 & 1.5)**

c) **Training Manuals:**
Training manuals for following technologies have been formulated.
- ADM

- Combustion control
- LGHR

(All Training Manuals in Annexure VII 1.6)

d) **Post Implementation Reports:**

- ADM **(Annexure VII 1.7)**
- Combustion Control **(Annexure VII 1.8)**

e) **DPR:**

- ADM **(Annexure VII 1.9)**
- Combustion Control **(Annexure VII 1.10)**

- EESL has developed a dedicated website (https://msme.eeslindia.org/) covering cluster details, technology details, case studies, project progress dashboard.
- Workshop on sustainability was held by Schneider Electric through EESL in Lucknow for the units and vendors of Varanasi cluster. The project's specifics as well as information on technologies, financial models, etc., were shared.
- Technology toolkit prepared for 32 technologies and encompassing technology brief, business model, energy saving templates, cost benefits
- Installation, Commissioning and M&V completed for 21 technologies at 38 demo unit. Agreement for demonstration signed with 64 MSME units and procurement is under progress for 9 technologies.
- Social media based P2P network created for exchange of knowledge and information related to the project.
- Technology flyers have been created on the identified technology and shared to EESL regional offices for dissemination of information.

2. Please list any **relevant knowledge management mechanisms / tools** that the project has generated.

Annexed. V

Annexure V 1.1_10th Draft PSC Minutes

Annexure V 1.2_Association/ Technology suppliers meeting

Annexure V 2.1_GEF OFP BTOMR Dibrugarh

Annexure V2.2_GEF OFP BTOMR Surat

Annexed. VII

Pamphlet:
Annexure VII 1.1_ADM Technology
Annexure VII 1.2_Combustion Control Technology
Annexure Vii 1.3_LGHR Technology

Case Study:
Annexure VII 1.4_ADM Technology
Annexure VII 1.5_Combustion Control Technology

Training Manuals:
Annexure VII 1.6_Training Manuals

Post Implementation Reports:

Annexure VII 1.7_ADM Technology
Annexure VII 1.8_Combustion Control Technology

DPR:
Annexure VII 1.9_ADM Technology
Annexure VII 1.10_Combustion Control Technology

VIII. Implementation progress

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes achieved/observed** with regards to project implementation.

Outcome: The project has accomplished the following milestones thus far and is now at a critical stage for undertaking the up-scaling tasks of the demonstrated technologies:

- Survey Report: The survey has been completed for 12 clusters, involving 841 surveys.
- Detailed Energy Audit: Energy audits have been completed for 12 clusters, comprising 81 detailed energy audits.
- LSP Survey: The survey has been completed for 9 clusters, and it is in progress for 1 new cluster.
- Quick Estimator Tool: A quick estimator tool has been developed, consisting of 32 Excel-based and 28 web-based tools.
- Technology Specific Baseline Studies: Baseline studies for demonstration purposes have been completed for 82 units.
- Detailed Project Reports: A total of 50 detailed project reports have been completed.
- Memorandum of Agreement (MoA) Signed for Demo Units: MoAs have been signed for 65 units for demonstration purposes.
- Vendor Meetings: Meetings with vendors have been conducted for 36 technologies.
- Procurement for Demo Units: Procurement for 54 units has been initiated, with 37 units completed.
- Comprehensive Technology Toolkit: The toolkit has been completed, totalling 30 tools.
- Demonstration of Pilot Technologies: 21 technologies have been demonstrated across 37 units.
- Cluster Package Offers: Offers for cluster packages have been completed for 10 clusters.
- Awareness/Knowledge Dissemination Workshops: A total of 17+ workshops have been conducted.
- Bulk Procurement: Bulk procurement has been initiated for 2 technologies.

Challenges: However, three critical non-deliverables are causing concern for the project's future:

1. Rolling out of EMRF (Electronic Market Ready Framework).
2. Pending demonstrations for 15 technologies.
3. Execution of 396 up-scaling tasks, with eight already completed and agreements signed for two units.

EESL has expressed intentions to expedite procurement in the next two months, but repeated assurances in the past have not been met, creating scepticism, especially regarding financial and training components.

Regarding UNIDO's concerns, EESL mentioned that their internal team is engaging with MSME units and arranging vendor visits to finalize technical specifications and technology costs. Replication activities in clusters are contingent on EMRF approval by UNIDO/MoMSME.

UNIDO has expressed frustration over project delays and calls for discussions to assess EESL's commitments and recommend expedited actions. UNIDO believes that the lack of clarity on procurement plans has eroded industry trust, rendering the reported 100 EOI (Expressions of Interest) meaningless. The focus appears to be on pilot accomplishments, with little correlation to replication numbers initially promised by the PMCs (Project Management Consultants) when selecting technologies.

Progresses: In terms of achievements during the specified period, here is a summary of progress in various clusters:

- Ankleshwar: Approval received for five technologies, with MoAs signed for nine MSME demo units. LoAs issued for nine technology demonstrations. Successful installation and M&V processes completed for all technologies.

- Batala-Jalandar-Ludhiana: Four technologies approved, with MoAs signed for eight demo units. LoAs issued for one technology, and procurement underway for two others. Installation and commissioning completed for one technology, IBH, with successful M&V.
- Howrah: Four technologies approved, with MoAs signed for seven units and LoAs for five units. DBC procurement in progress, and installation and commissioning done for three technologies with successful M&V.
- Jorhat: Four technologies approved, with MoAs signed for eight demo units. Successful installation, commissioning, and M&V processes for all eight units.
- Muzaffarnagar: Approval for three technologies, MoAs for two demo units. Baseline study for Vacuum Pump at eight units. RfP preparation for two demo units. Comprehensive M&V protocol for both technologies.
- Medak: Four technologies approved, MoAs for four demo units, and procurement in progress. Baseline studies conducted for six units, indicating commitment to technology implementation.

Regarding the financial model, EESL has raised concerns about the adverse impact of its financing costs on the overall financial model's strength. To address this, we propose a shift in responsibilities, with SIDBI taking the lead in overseeing the EMRF component. In this revised approach, EESL's role would primarily be as a market aggregator and for conducting technical due diligence.

It's noteworthy that SIDBI has shown its commitment by pledging approximately 18 million in funding for the initial phase of this initiative.

2. Please briefly elaborate on any **minor amendments**[6] to the approved project that may have been introduced during the implementation period or indicate as not applicable (NA).

Please tick each category for which a change has occurred and provide a description of the change in the related textbox. You may attach supporting documentation, as appropriate.

☐	Results Framework	
☐	Components and Cost	
✓	Institutional and Implementation Arrangements	The original CEO endorsement document plan was to create a trust to scale up energy-efficient technologies. However, it was later decided that this was not a workable solution because trusts and special purpose vehicles (SPVs) are not sustainable or commercially viable. After multiple stakeholder meetings and review meetings at the Ministry of MSME, it was agreed to create a joint arrangement with SIDBI called the EESL-SIDBI Revolving Fund (ESMRF). EESL will provide technical services and SIDBI will provide financial services. Two methodologies are proposed used to implement the technologies: EESL will implement standard technologies, and ESCO/EESL will implement customized technologies. A fund of ₹150 crore will be created to implement the technologies in around 400 MSME units.

[6] As described in Annex 9 of the *GEF Project and Program Cycle Policy Guidelines*, **minor amendments** are changes to the project design or implementation that do not have significant impact on the project objectives or scope, or an increase of the GEF project financing up to 5%.

☐	Financial Management	
X	Implementation Schedule	*An extension will be requested.*
☐	Executing Entity	
☐	Executing Entity Category	
☐	Minor Project Objective Change	
☐	Safeguards	
☐	Risk Analysis	
☐	Increase of GEF Project Financing Up to 5%	
☐	Co-Financing	
☐	Location of Project Activities	
☐	Others	

3. Please provide progress related to the **financial implementation** of the project.

PROJECT DELIVERY REPORT

Project:	120262 - PROMOTING MARKET TRANSFORMATION FOR ENERGY EFFICIENCY IN MICRO, SMALL & MEDIUM ENTERPRISES	**Project Manager:**	Sanjaya Shrestha	**Project Validity: Status:**	01.09.2015 - 30.06.2024 Implement		
Reporting Period:	**28.08.2015 - 06.09.2023**	**Project Theme:**	Energy and Environment	**Country:**	India	**Region**	Asia and Pacific

Sponsor Nr.	Sponsor	Grant	Grant Description	Fund	Currency	Grant Status	Grant Validity
400150	GEF - Global Environment Facility	2000003174	4893_IND	GF	USD	Authority to implement	28.08.2015 - 30.06.2024

	Description	Released Budget Current Year (a)	Obligations Current Year (b)	Disbursements Current Year (c)	Expenditures Current Year (d=b+c)	Total Agreement Budget (e)	Released Budget (f)	Obligations + Disbursements (g)	Funds Available* (h=f-g)	Support Cost (i)	Total Expenditures (j=g+i)
2000003174		**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**
1100	Staff & Intern Consultants	50,314.64	0.00	0.00	0.00	145,509.81	145,509.81	70,195.17	75,314.64	0.00	70,195.17
1500	Local Travel	21,117.50	(1,702.22)	9,401.38	7,699.16	98,991.52	98,991.52	70,573.18	28,418.34	0.00	70,573.18
1700	Nat.Consult./Staff	82,129.28	10,319.54	59,969.27	70,288.81	545,781.16	545,781.16	520,940.69	24,840.47	0.00	520,940.69
2100	Contractual Services	209,095.12	0.00	(120,738.67)	(120,738.67)	3,503,267.06	3,503,267.06	3,102,433.27	400,833.79	0.00	3,102,433.27
3000	Train/Fellowship/Study	29,718.65	(431.67)	800.04	368.37	52,370.90	52,370.90	10,020.62	42,350.28	0.00	10,020.62
3500	International Meetings	0.00	0.00	0.00	0.00	2,148.10	2,148.10	2,148.10	0.00	0.00	2,148.10
4300	Premises	15,059.92	0.00	0.00	0.00	15,100.00	15,100.00	40.08	15,059.92	0.00	40.08
4500	Equipment	22,148.90	2,313.37	799.30	3,112.67	38,493.29	38,493.29	17,457.06	21,036.23	0.00	17,457.06
5100	Other Direct Costs	35,269.06	(683.86)	2,983.48	2,299.62	63,793.16	63,793.16	26,323.72	37,469.44	0.00	26,323.72
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	382,013.83	382,013.83
2000003174	**Total**	**464,853.07**	**9,815.16**	**(46,785.20)**	**(36,970.04)**	**4,465,455.00**	**4,465,455.00**	**3,820,131.89**	**645,323.11**	**382,013.83**	**4,202,145.72**
120262	**USD Total**	**464,853.07**	**9,815.16**	**(46,785.20)**	**(36,970.04)**	**4,465,455.00**	**4,465,455.00**	**3,820,131.89**	**645,323.11**	**382,013.83**	**4,202,145.72**

*** Does not include Unapproved Obligations**

Financial management and co-finance

The Market Transformation project aims to create a sustainable financing model for the replication of energy efficiency technologies in a large number of MSME units. One of the key components of this model is the creation of a revolving fund.

The revolving fund will provide loans to MSME units for the implementation of energy efficiency projects. The loans will be repaid from the savings that the MSME units generate from the reduced energy consumption. This will ensure that the fund is self-sustaining and can continue to provide loans to other MSME units.

The initial structure of the revolving fund was to be a trust. However, after further discussions, it was decided that a special purpose vehicle (SPV) or a non-banking financial company (NBFC) would be a more suitable option. This is because an SPV or NBFC would have the expertise and resources to manage the fund effectively.

As per the new proposal, Domain expertise of EESL and SIDBI will be leveraged to develop and successful implementation of EMRF, especially risk assessment of MSME units by SIDBI with their vast experience and technical risk assessment by EESL. Also, local expertise with support of ESCOs/empanelled agencies will be availed to provide value added services to MSME units. EMRF will also attempt to bring doorstep delivery of financial and technical solutions to MSME units. EMRF will have flexibility to adopt and modify the modalities as per prevailing market situation. Even through it will be loan from SIDBI, the arrangement of financing/implementation will be through performance contracting. EESL will ensure the performance warrantee of the equipment and technology suppliers to ensure the performance of the equipment throughout the project period. In case of non-performance of the equipment, provision of M&V has been kept at latter part of the project if deemed.

EESL will empanel the technology suppliers through open empanelment process. The technology suppliers empanelled through this process will participate in the limited tender process to reduce the time and complexity. EESL will aggregate the demand through different channels and based on the inputs received through demand aggregation, bulk procurement procedure will be initiated. The bulk procurement will be done for selected technologies at the initial stage and based on the demand and ease of implementation of technologies, bulk procurement of remaining technologies will be initiated. As per the past learnings from the project, bulk procurement has resulted reduction in price up to 40% from the existing market. Considering the learning, minimum 15% reduction in price is expected if number of quantities in bulk procurement is more than 10.

SIDBI will bring simplified approval process for financing of energy efficient projects and robust payment security mechanism. SIDBI will also attempt to provide 100 percent financing to MSME units on Quick Dispensation Mode with Minimum Cash Collateral of 20% in form of SIDBI FDR. Upon sanction, loan agreement and other security documents shall be executed by MSME units to ensure payment security.

EMRF will attempt to provide benefits of the state government schemes/ risk sharing scheme/ other ongoing schemes available for energy efficiency projects in MSME units. SIDBI through EMRF will process loan up to 100% of the technology cost. UNIDO has highlighted the following concerns on the proposed EMRF structure-

- The execution plan submitted by EESL keeping in mind of the track record is very ambitious and proper resource allocation needs to be ensured by EESL and resource planning submitted by EESL was not found satisfactory
- Concrete exit plan would be needed at the end of the project period which needs lots of clarity
- There is not enough clarity as to how the business model will be competitive and what exactly is on offer for the prospective participating industries

- EESL's proposal to utilise the seed money for interest compensation not acceptable from GEF point of view as the seed money is primarily meant for risk coverage
- One of the suggestion was to look at the feasibility of entrusting SIDBI to have full-fledged role in the financing component to bring competitive value in the business by addressing the comparative high rate of interest of EESL capital.
- Clarity on 20 million USD investment commitment from EESL needs to be looped in before freezing the EMRF component

IX. Work Plan and Budget

1. Please provide **an updated project work plan and budget** for the remaining duration of the project, as per last approved project extension. Please expand/modify the table as needed.

Outputs by Project Component	Year 4				Year 5				Year 6				GEF Grant Budget Available (US$)
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Component 1 – Component 1: Identifying energy intensive clusters													
Outcome 1: Identification of Energy Intensive Clusters													
Output 1.1: Objective & Transparent Mechanism for cluster level technology benchmarking.													27,737.30
Output 1.2: Identification of Technologies that have maximum impact on the cluster as a whole													
Component 2 – Component 2: Demonstration of Energy Consumption Reduction at the Cluster Level													
Outcome 2: 1. Demonstration of Energy Consumption Reduction at the Cluster Level 2. Capacity built and awareness raised as a result of the demonstration projects													
Output 2.1: 35 Energy Efficient Technologies Demonstrated in MSMEs (Each technology to be demonstrated in at least two units)													301,301.94
Output 2.2: 100 Local Service Providers (LSPs) and Technical Personnel of MSME units Trained													
Output 2.3: Peer to Peer network established and results of demonstration projects disseminated through cluster level workshops, M&V Protocols finalized													
Output 2.4: Investments undertaken by other MSME units as a result of the other demonstration activities facilitated													
Output 2.5: Identification, documentation and finalization of specific needs and technical performance requirements of enrolled units and technology vendors													
Component 3 – Establishment of Sustainable and Effective Financial Mechanism													
Outcome 3: Establishment of sustainable and effective financial mechanisms.													
Output 3.1: Officials from government agencies & private banks/financial institutions													176,671.25

sensitized on promoting EE equipment & trained on evaluating & investing in industrial EE projects.													
Output 3.2: A tailored portfolio of innovative financial products of MSME's investment in energy efficiency projects facilitated	-	-	-	-	-	-	-	-	-	-	-	-	
Output 3.3: Industrial enterprises appraised of the existing financing schemes and national experts trained in the preparation of innovative EE financial proposals	-	-	-	-	-	-	-	-	-	-	-	-	
Output 3.4: Contracts for EESL/ESCOs with MSME units and technology providers standardized	-	-	-	-	-	-	-	-	-	-	-	-	
Output 3.5: Institutional and Governance Structure and Working Methodology of the EMRF finalized, options for seeking additional funds for the EMRF defines	-	-	-	-	-	-	-	-	-	-	-	-	
Component 4 – Monitoring and Evaluation Mechanisms													
Output 4.1: Regular Monitoring Exercise conducted	-	-	-	-	-	-	-	-	-	-	-	-	10,714.23
Output 4.2: Medium & Final Evaluation Conducted	-	-	-	-	-	-	-	-	-	-	-	-	123,893.45

X. Synergies

1. **Synergies** achieved:

The National Mission for Enhanced Energy Efficiency (NMEEE) aims to improve energy efficiency in all sectors of the economy. The UNIDO MoMSME GEF-5 Project is supplementing the efforts of the mission in market transformation of energy efficient technologies identified under the project in 12 clusters by clubbing technical and financing services for energy efficiency projects in MSMEs. The project also supports schemes of ministry of MSME and state government related to technology upgradation and energy audit works.

The Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is a government of India skill development program that aims to train 100 million people in different skills. The GEF-5 Project is supporting the PMKVY by providing training and capacity building to plant operators and technical solution providers on energy efficiency technologies.

State government have capital subsidy and interest subvention schemes for MSMEs on technology upgradation. The GEF-5 Project can leverage these schemes to provide financing for energy efficiency projects in MSMEs.

These are few examples of the synergies between the GEF-5 Project and other government of India projects. By working together, these projects can help to improve energy efficiency in the MSME sector and contribute to India's clean energy goals.

In addition to this government of India projects, the GEF-5 Project is also working with other stakeholders, such as industry associations, financial institutions, and technology providers, to promote energy efficiency in MSMEs. By working together with these stakeholders is helping to create a more enabling environment for energy efficiency in the MSME sector.

3. Stories to be shared (Optional)

NA

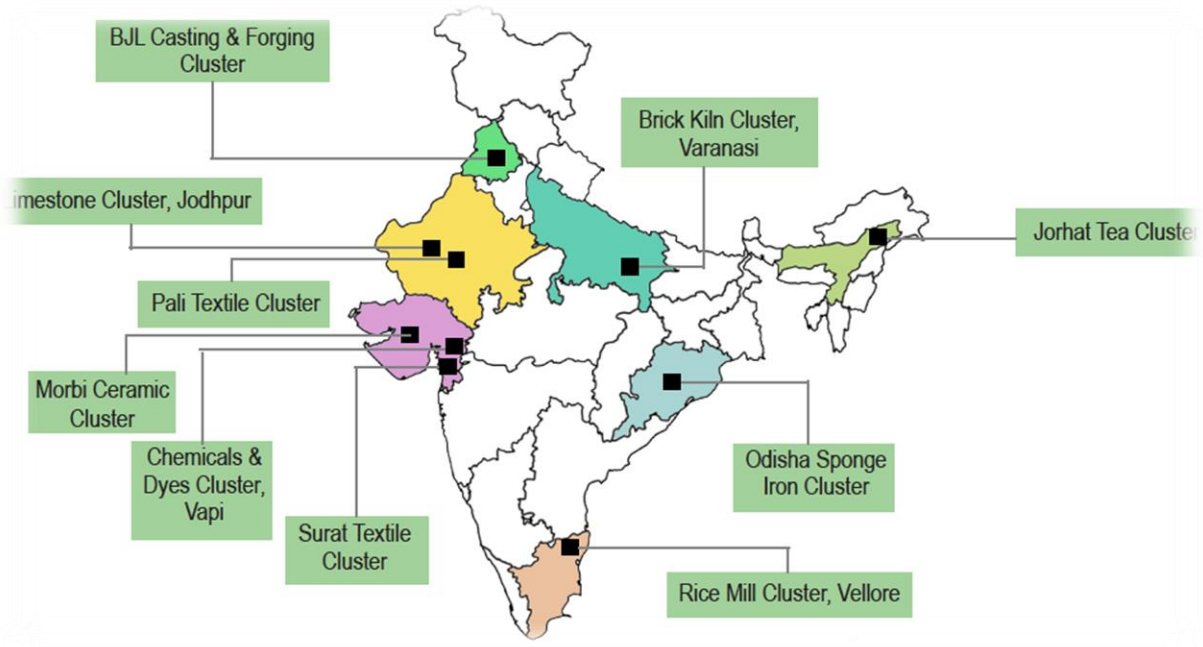
XI. GEO LOCATION INFORMATION

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate.

Web mapping applications such as OpenStreetMap or GeoNames use this format. Consider using a conversion tool as needed, such as: https://coordinates-converter.com
Please see the Geocoding User Guide by clicking here

Location Name	Latitude	Longitude	Geo Name ID	Location and Activity Description
Vellore	N 12° 55' 6"	E 79° 7' 57"	1253286	Vellore, Tamilnadu Pilot demonstration in rice mill cluster
Surat	N 21°11′45″	E 72°49′49″	1255364	Surat, Gujarat Pilot demonstration & Up-scaling in textile cluster
Muzaffarnagar	N 29°28′15″	E 77°42′12″	1262332	Muzaffarnagar, Uttar Pradesh Pilot demonstration & Up-scaling in pulp and paper cluster
Varanasi	N 25°19′00″	E 83°00′37″	1253405	Varanasi, Uttar Pradesh Pilot demonstration & Up-scaling in textile cluster
Batala Jalandhar Ludhiana	N 31° 48' 33" N 31°19′32″ N 30°54′43″	E 75° 12' 10" E 75°34′45″ E 75°51′14″	1276720 1268782 1264728	BJL, Punjab Pilot demonstration & Up-scaling in forging and foundry cluster
Ankleshwar	N 21° 37' 56"	E 72° 59' 24"	1278553	Ankleshwar, Gujarat Pilot demonstration & Up-scaling in chemical cluster
Jorhat	N 26° 45' 27"	E 94° 12' 11"	1268820	Jorhat, Assam Pilot demonstration & Up-scaling in Tea cluster
Aurangabad	N 19°52′39″	E 75°20′32″	1278149	Aurangabad, Maharashtra Pilot demonstration & Up-scaling in mixed cluster
Medak	N 18°02′43″	E 78°15′39″	1263230	Medak, Telangana Pilot demonstration & Up-scaling in pharmaceutical cluster
Howrah	N 22°34′37″	E 88°19′07″	1270396	Howrah, West Bengal Pilot demonstration & Up-scaling in mixed cluster
East Godavari	N 17°50′00″	E 81°50′00″	1272123	East Godavari, Andhra Pradesh Feasibility studies in ceramic cluster
West Godavari	N 17°00′00″	E 81°10′00″	1252873	West Godavari, Andhra Pradesh Feasibility studies in ceramic cluster
Sundargarh	N 22°15′00″	E 84°30′00″	1255438	Sundergarh, Odisha - Feasibility Studies Sponge Iron Cluster

Please provide any further geo-referenced information and map where the project interventions is taking place as appropriate.



EXPLANATORY NOTE

1. **Timing & duration:** Each report covers a twelve-month period, i.e. 1 July 2022 – 30 June 2023.

2. **Responsibility:** The responsibility for preparing the report lies with the project manager in consultation with the Division Chief and Director.

3. **Evaluation:** For the report to be used effectively as a tool for annual self-evaluation, project counterparts need to be fully involved. The (main) counterpart can provide any additional information considered essential, including a simple rating of project progress.

4. **Results-based management**: The annual project/programme progress reports are required by the RBM programme component focal points to obtain information on outcomes observed.

Global Environmental Objectives (GEOs) / Development Objectives (DOs) ratings	
Highly Satisfactory (HS)	Project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice".
Satisfactory (S)	Project is expected to achieve most of its major global environmental objectives, and yields satisfactory global environmental benefits, with only minor shortcomings.
Moderately Satisfactory (MS)	Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modes overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environmental benefits.
Moderately Unsatisfactory (MU)	Project is expected to achieve some of its major global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives.

Unsatisfactory (U)	Project is expected not to achieve most of its major global environmental objectives or to yield any satisfactory global environmental benefits.
Highly Unsatisfactory (HU)	The project has failed to achieve, and is not expected to achieve, any of its major global environmental objectives with no worthwhile benefits.

Implementation Progress (IP)	
Highly Satisfactory (HS)	Implementation of all components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as "good practice".
Satisfactory (S)	Implementation of most components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action.
Moderately Satisfactory (MS)	Implementation of some components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
Moderately Unsatisfactory (MU)	Implementation of some components is not in substantial compliance with the original/formally revised plan with most components requiring remedial action.
Unsatisfactory (U)	Implementation of most components in not in substantial compliance with the original/formally revised plan.
Highly Unsatisfactory (HU)	Implementation of none of the components is in substantial compliance with the original/formally revised plan.

Risk ratings	
Risk ratings will access the overall risk of factors internal or external to the project which may affect implementation or prospects for achieving project objectives. Risk of projects should be rated on the following scale:	
High Risk (H)	There is a probability of greater than **75%** that assumptions may fail to hold or materialize, and/or the project may face high risks.
Substantial Risk (S)	There is a probability of between **51%** and **75%** that assumptions may fail to hold or materialize, and/or the project may face substantial risks.
Moderate Risk (M)	There is a probability of between **26%** and **50%** that assumptions may fail to hold or materialize, and/or the project may face only moderate risk.
Low Risk (L)	There is a probability of up to **25%** that assumptions may fail to hold or materialize, and/or the project may face only low risks.