



Clean Energy Finance and Investment Roadmap

Workshop II: MSME Energy Efficiency – Tuesday 10 May 2022

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Unlocking capital for MSME energy efficiency: workshop summary notes

Energy efficiency has been highlighted as a key aspect of India's climate ambitions. At the 26th Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change, Prime Minister Shri Narendra Modi announced intentions to reduce India's carbon intensity by 45% over 2005 levels by 2030, significantly raising the existing target of 33-35%. Higher ambition brings immense investment potential for energy efficiency in India, and creating the enabling conditions for the flows of capital required to achieve this 2030 target will be essential.

Micro, small and medium enterprises (MSMEs) are of particular importance in this context. MSMEs constitute more than 90% of all industrial units in India, employing over 111 million people and contributing to about 29% of India's gross domestic product. Altogether, MSMEs account for a quarter of total industrial energy consumption in India. MSMEs also face substantial energy costs (as much as 35% of overall operating expenditures), which is due in part to use of by low efficiency technologies. Improving energy efficiency in MSMEs will thus not only reduce energy-related emissions but also reduce this cost burden.

Key message from Workshop I and stakeholder consultations: unlocking opportunities to scale up MSME energy efficiency finance and investment requires a mix of interventions, including awareness raising and capacity building, development of standardised documents, promotion of energy service companies, and use of tools such as payment security mechanisms that can ease financing challenges.

The Government of India is working hard to advance solutions that address these needs. The Roadmap workshop, looking at solutions to address the cost of finance, was opened with remarks by Shri Abhay Bakre, Director General of the Bureau of Energy Efficiency (BEE). He provided an overview of on-going activities, including financial programmes such as the partial risk guarantee scheme (PRSF) with the Small Industries Development Bank of India (SIDBI) and BEE's new Energy Efficiency Finance Platform (EEFP). DG Bakre highlighted the resilience of MSMEs during the COVID pandemic, and that gearing up for the economic recovery is an opportunity to ensure a cleaner, more efficient pathway forward. Enabling this requires making sure affordable finance is available for energy-efficient solutions and that efforts to support MSME efficiency uptake minimise risks for investment.

The OECD Clean Energy Finance and Investment Mobilisation (CEFIM) programme and Natural Resources Defense Council (NRDC) then presented findings from the first Roadmap workshop (see summary and presentations at <https://www.oecd.org/cefim/india/roadmap/>) where several key themes (e.g. need for improved data to address risks and transaction costs for financial institutions) emerged. One central theme was the cost of finance, and CEFIM and NRDC presented findings from consultations with financial players on this topic. A number of initiatives, such as the Credit Linked Capital Subsidy Scheme (CLCSS) and the Credit Guarantee Fund Trust for MSMEs (CGTMSE), already provide financial support to MSME technology upgradation, including energy efficiency measures. Yet, *there can be challenges, such as delays in support payments and programme costs (e.g. processing*



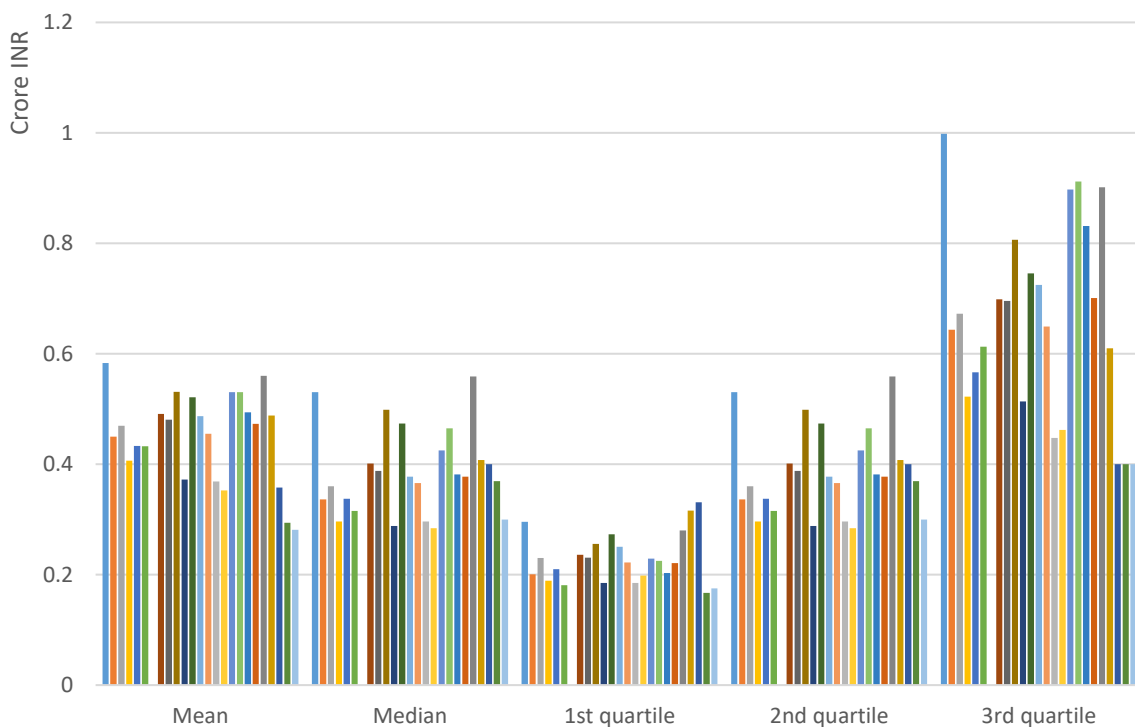
and fees) that add to the overall cost of finance. Other elements, like hedging costs, particularly for international funds, also add to the cost of finance.

Consultations also pointed to the need for more targeted support. This includes building upon existing initiatives, for example through cluster mapping and technology demonstrations, to ensure sufficient pipelines of energy efficiency data and demand. Use of tools such as blended finance can help to address project pipelines in a way that does not impact the cost of finance (i.e. by treating “hand-holding” activities separately from financial support). Potential lessons can also be extracted from international experiences with tools such as the Carbon Risk Mitigation Facility and the TCX fund for currency swaps. Tailoring such solutions, including addressing eventual regulatory barriers (e.g. limiting hedging by entities that do not hold the underlying asset) would help address costs.

Group discussion: assessing investment needs and the impacts from the cost of finance

CEFIM and NRDC opened the group discussion with a presentation considering the potential impact of the cost of finance for MSME energy efficiency upgradation. Over 16 500 projects supported by the CLCSS and Technology and Quality Upgradation (TEQUP) scheme were assessed, where the estimated project CAPEX amount (based on the distributed subsidy) typically fell between INR 0.2-0.6 crore (roughly USD 25-65 thousand). Data from MSME loan schemes offered by state banks and non-banking financial companies (NBFCs) showed that collateral requirements could often be in the range of 20-40%, suggesting that actual borrowed amounts (i.e. loans after the applied capital subsidy and collateral requirements) could be in the typical range of INR 0.1-0.35 (roughly USD 13-45 thousand). Interest rates spread from as little as 6.75% to 27%, over tenures of 1.5 to 10 years (the average being around 5). Processing fees could represent as much as 1-3% (absolute) of those interest rates.

Figure 1: Range of estimated project CAPEX under the CLCSS and TEQUP schemes, 2016-2021





While these data are not necessarily a full picture of MSME financing, and while the energy efficiency components may not represent the full project CAPEX, the spread gives a sense of magnitude and eventual implications for the cost of finance. CEFIM and NRDC presented some eventual implications for borrowing costs if measures were taken to address interest rates for such loans. For instance, reducing a five-year INR 0.2 crore loan by 1% or 2% (absolute) would reduce the overall borrowed cost by around INR 0.6-1.1 lakhs (around USD 800-1 500). Given current volumes under the CLCSS (around 8 500 projects are subsidised each year), a 1-2% interest rate reduction could represent as much as INR 350-800 crore (roughly USD 45-105 million) in eventual savings to the borrower. When considered within a wider context, for example if 2% of the roughly 10 million SMEs in India were to perform energy efficiency upgrades each year, savings from such improvements in the cost of financing could easily be in the INR 100-450 lakh crore (USD 1.5-6 billion) range over the next decade.

Participants noted, in response to these illustrative figures, that the range and typical conditions for financing were not unrealistic (e.g. one participant noted that tenure generally varies between 3 and 7 years); although, the terms of finance depend on the nature of the MSME industry. As the MSME sector is diverse (e.g. with some segments having frequent, capital-intensive equipment replacement needs), solutions (e.g. on-lending schemes with concessional finance) will need not only to address the cost of capital but also to consider ways to overcome issues with how financial institutions evaluate MSMEs. Grading of projects and technology lists can help, in terms of informational flows for evaluating project risks, but *the cost of finance is not simply about energy efficiency measures*. Additional support (e.g. through guarantees or a first-loss facility) are needed to address underlying financial risk criteria and the credit worthiness of borrowers.

Effort is needed to tackle transaction costs (e.g. due to small ticket sizes and lack of standardised documentation), which impact the overall cost of finance, as do the wider capital needs for MSMEs. Priority sector lending (PSL) requirements mean there already is a lot of lending to MSMEs, but not necessarily for efficiency measures. Additional funds for energy efficiency can thus be challenging, and PSL criteria could do more to push lenders to encourage efficiency components to borrowers.

Training and capacity building is needed to support energy efficiency lending, particularly by state and local financial actors. *Credit subsidy schemes often go through national financial institutions, but many MSMEs deal with local banks, who generally lend at higher rates (part of which is due to their lack of knowledge of energy efficiency projects and/or their perception of risk in evaluating projects).*

Market-based solutions, such as energy service companies (ESCOs), can help to lower costs and facilitate investments, for example by addressing issues such as limited MSME working capital and poor credit profiles. Yet, many ESCOs are themselves MSMEs and need financing support. Tools to address risks (e.g. if a project fails to pay) are needed, as is *support to train the ESCO market on technology procurement, installations, operation and maintenance*. This can help to address industry (including MSMEs) confidence in ESCO services (e.g. in terms of actual energy savings delivered). A BEE vetted ESCO list can help increase confidence in energy service contracts, especially if paired with financing tools like energy savings insurance or concessional finance linked to energy savings.

More broadly, the secondary market needs a “reset”, which would help with the high cost of finance and the important outstanding MSME debt held by financial institutions. This includes through capital market instruments, such as sovereign or municipal green bonds (possibly backed with support by



international partners), which have helped to lower the cost of finance for other priority segments such as solar capacity development.

Group discussion: solutions to lower the costs for energy efficiency investments

Participants noted in the second group discussion that a number of the elements impacting the cost of finance also lend to solutions that can lower the cost of energy efficiency investments. For example, *payment and default risks add to the cost of finance, but comparable risks (e.g. for solar projects) have been addressed by tools such as offtake guarantees*. Use of mechanisms such as partial risk guarantees and energy savings insurance (e.g. to mitigate any shortfalls in energy savings for ESCO financing) can increase the belief that debt will be repaid and that contracts will be honoured.

Critically, these eventual solutions need to be paired with continued efforts to raise awareness and build capacity in the market, as MSMEs are not prioritising energy efficiency investments and as there lacks an overall pipeline of efficiency projects for banks to finance. For example, the Partial Risk Guarantee for Energy Efficiency (PRGFEE) ran for seven years and did not receive a single application under the programme. This needs to be addressed through demand creation and aggregation (e.g. through cluster work by SIDBI), as well as by *measures to ensure risk guarantees are reasonably priced with terms and conditions that are practical for financial partners*. Such measures will help to move the needle on energy efficiency investments.

Awareness raising and capacity building programmes also need to prepare projects for financing (e.g. through energy audits and standardised loan documentation), whilst similar training and capacity building efforts with financial partners can address risk assessment (e.g. through project data and energy-efficient technology lists). These “hand holding” and *pipeline creation efforts, potentially working with ESCOs or local development actors, will help to reduce costs* for reaching out to MSMEs as well as the costs of finance (e.g. for transaction costs and risk evaluation).

BEE’s new facilitation centre will help to address a number of these needs, both through information and documentation on the portal as well as through training and capacity building for financial actors. Additional donor support is welcome, where *a revolving fund would help to sustain EEFP activities* (especially for “hand holding” components such as training and capacity building that will require multiple rounds). As the platform develops and improves, it should help financial institutions to assess the risks and overall logistics in lending to energy efficiency projects. This should also help to target financial support mechanisms (e.g. guarantees) and incentives (e.g. on-lending schemes) to increase participation by financial institutions. This could include use of the bond market (e.g. through sovereign green bond issuance) to help mainstream financing of energy efficiency projects.

Participants also noted that current tools such as the CLCSS and TUQEP scheme could be designed differently to encourage entities to seek out energy efficiency (e.g. through on-lending schemes with concessional terms, rather than as direct subsidies). This is underscored by current MSME energy efficiency adoption, which typically has short payback periods (and thus the capital subsidy may not be addressing market needs). In addition, *it is not entirely clear that subsidy schemes are addressing the overall cost of financing*. One suggestion was to have a nodal agency that takes up interest subsidy claims to pass on savings to financial partners on an annual basis. This would also allow for a one-year horizon to assess energy savings (e.g. as part of eligibility and verification requirements), which would also help in increasing confidence in the market.



Documentation requirements to access financial schemes can be designed differently, as they can be complicated and challenging to complete (both for MSMEs as well as for ESCOs). Simplifying the process to avail of support schemes, including for instance easily accessible support manuals, can help address this barrier, whilst equally improving transactional costs for financial institutions that have to process that information (including for eventual securitisation).

Group discussions also highlighted the role of international finance that has played an important role in developing programmatic solutions such as energy efficiency demonstrations at the cluster or sub-sector level. These initiatives are important in building awareness in the market and in demonstrating energy savings potential, but they do not necessarily lead to scale. *Future focus can look to engage/develop the business models and/or intermediary actors (e.g. ESCOs) that can continue implementation beyond programmes.* Donor funds can also look to support risks (e.g. through credit enhancement mechanisms), as use of concessional funds (when accounting for foreign currency hedging) do not necessarily address the cost of finance, nor the underlying issue of credit quality (which remains with the domestic lender).

Key highlights from the workshop discussions (with suggested potential actions):

The group discussions highlighted in multiple instances that supply of finance is not a critical issue (as evidenced by PSL to MSMEs). Rather, a key bottleneck is demand for energy efficiency and appetite for investment in those solutions. Awareness raising, training and capacity building (including with eventual market players like ESCOs) are thus critical components to support MSME energy efficiency finance. These also can help to ensure projects are ready for finance (e.g. through standardised documentation) in a way that helps to address costs.

- *MSME initiatives and support schemes should look to encourage and incentivise demand for energy efficiency. This can potentially include targeted PSL rules or incentives for efficiency measures (e.g. using empanelled energy efficiency technology lists) to encourage financial institutions and MSMEs to seek out and invest in efficiency solutions. Existing schemes (e.g. CLCSS) can likewise clearly specify and/or incentivise energy-efficient technologies under eligibility criteria. Training and capacity building programmes (e.g. through cluster initiatives to build awareness) can then help to prepare and direct partners for relevant schemes, helping to ensure support creates scale and replicability in the market (including through intermediary players, like ESCOs – see below). Importantly, support mechanisms and market initiatives should be designed in a way that does add to the cost of finance. For instance, donor finance can facilitate project preparation and documentation through separate, dedicated funds or through use of blended finance.*

The new BEE facilitation centre and EEFP can play a central role in addressing concerns about lack of data and confidence in the viability of energy efficiency projects. Expansion/evolution of this platform can help to bring in additional partners and open the door for new initiatives such as the proposed investor bazaar.

- *BEE should continue to work with partners to ensure the facilitation centre and EEFP become a central “hub” for energy efficiency, especially given the number of actors (both domestic and international) and initiatives working with MSMEs and on energy efficiency deployment. Building upon co-ordination with relevant authorities (e.g. DC MSME) is a first step to ensure data and information (including technology lists and empanelled ESCOs) are readily accessible*



and consistently used. Co-operation can also help to ensure data collected across programmes and financing schemes collects and uses comparable indicators and metrics, which will build confidence in energy efficiency finance whilst helping to streamline and simplify reporting (e.g. by participant financial institutions). This can help to reduce costs (see below on simplifying documentation) and can also help to identify where future support or evolutions in financing schemes are most needed.

Interest rate subsidies may not have the effect desired, especially given current focus on short payback periods. Financial support and financing schemes can be designed in a way that addresses risks, for instance through credit enhancement and first-loss facilities.

- *Initiatives such as the CLCSS and TUQEP schemes should consider designing support (e.g. through on-lending schemes with concessional terms) to encourage financial partners to seek out energy efficiency and pass on savings to MSME borrowers. Risk mitigation tools, such as the offtake guarantees used for renewable energy projects, should also be assessed to identify where support can help to lower the cost of finance for energy efficiency projects. Effort is additionally needed (e.g. working with partner banks) to assess where transactional costs can be reduced (e.g. through separate treatment of programme/processing fees).*

Access to finance for MSMEs is a challenge given many of them are already highly leveraged and may suffer from poor credit ratings. Support for development of market-based solutions, such as ESCO services, can help to address this barrier and get energy efficiency solutions into the market.

- *Efforts to unlock energy efficiency measures for MSMEs should consider the suitable business models and/or intermediary actors to enable deployment of these solutions at scale. For example, support for technology demonstrations (e.g. in MSME clusters) should look to identify relevant market players and provide them with any required training and capacity building (see point above) to ensure these actors have the necessary tools and capacity to prepare and continue carrying out energy efficiency services once the programme has ended. These initiatives can be complimented by financial support, for instance (results-based) concessional finance or credit enhancement mechanisms such as guarantees or contingent credit lines. BEE can also look to develop new financing mechanisms, such as energy savings insurance, with domestic partners (e.g. building upon the Partial Risk Sharing Facility under SIDBI) and with international parents, potentially through blended finance to help address project risks and lower the cost of finance for ESCOs.*

Simple is best, both in terms of documentation and in project evaluation. Effort is needed (e.g. working with NBFCs and ESCOs) to ensure documentation and guidance (e.g. on project evaluation) is simple, streamlined and standardised. At the end of the day, scaling energy efficiency finance and investment will require simple, replicable models to facilitate the lending process and lower the costs of financing.

- *BEE's facilitation centre can help to streamline the overall flow of information, standards and protocols (e.g. serving as a "one-stop shop"), including to help direct stakeholders to the appropriate support schemes. This can include working with partners, including international donors, to ensure that financial support and programmatic activities apply terms, conditions and reporting requirements that are both practical to apply and that also help to enable replication within the market.*