Creating Innovative Solutions for a Sustainable Future

Enabling Finance for Scaling up Energy Efficiency in MSMEs

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Outline

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- ✓ Institutional finance for SMEs
- ✓ Learning from recent studies on EE financing
- ✓ Government support for MSME Financing
- ✓ Technology environment and major EE initiatives
- ✓ FIs perspective on EE Financing
- ✓ Understanding Financing of Energy Efficiency
- ✓ Recommendations for EE financing

Institutional finance for MSMEs

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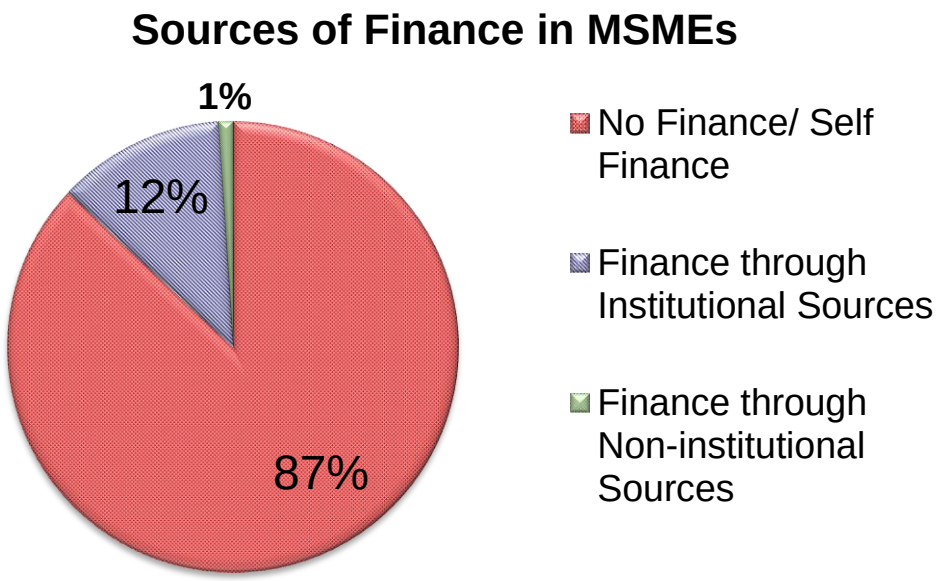
- MSME- a priority sector for banks
- Only 12% MSMEs (**only about 2 lakh units**) availed institutional finance*
- 1% from non-institutional sources*
- **About 87% did not avail external finance***



** Source- Fourth census of MSME sector for registered units*

Learning from Recent Studies

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- Bankers lack the capacities to evaluate EE projects
- Banks have substantial NPAs in the MSME sector
- No simple EE assessment tool for bankers
- Credit lines do not directly promote energy efficiency technologies
- Concerns on real savings compared to BAU scenario
- Higher transaction cost for individual EE loans to MSMEs
- Adoption of collateral based lending for MSMEs rather than cash-flow based

Government support for MSME Financing

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- ***Technology and Quality Up-gradation Support to MSMEs (TEQUP)***
  - technical assistance for energy audits, DPRs
  - capital subsidies (25% of the project cost, maximum of Rs. 10 lakh) on EETs having energy saving of over 15%.
- ***Credit Linked Capital Subsidy Scheme (CLSS)***
  - 15% capital subsidy, subject to a maximum of Rs.15 lakh for adoption of selected technologies listed under the scheme.
- ***Credit Guarantee Fund Scheme for MSEs***
  - collateral free loans up to Rs 1 crores
- ***Technology Up-gradation Fund Scheme (TUFS)***
  - Ministry of Textiles provides interest reimbursement (2-5%) and capital subsidy (10-30%) for investment upto Rs 5 croreS.

Government support for MSME Financing

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- ***Venture Capital*** — Equity support by SIDBI Venture Capital Limited through various funds
- ***India SME Technology Services Limited*** —
  - Associate organization of SIDBI
  - Large computerized database on EETs
  - Assists MSME for finance syndication through FIs
  - Developmental loan through FI for pre-technology absorption stage
  - 4E (End to End Energy Efficiency) Solutions
- ***Tax Incentives***
  - Accelerated depreciation (up to 80%) on selected EETs

Technology Environment

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- **Energy efficient technologies are in different stages of commercialization**

Pre commercial technologies	Semi-commercial technologies	Fully commercial technologies
• Readymade energy efficient technological solutions not commercially available • R&D of new EE solutions necessary • Eg- melting furnaces, WHR systems for sectors like aluminium, brass, textiles, iron & steel etc.	• Newly developed EETs • Demonstrated in few units, but not yet 'taken-off' • Eg- Divided Blast Cupola melting furnace, biomass-gasifiers, hi-EE boilers • Need to be supported by awareness creation and replicating pilots	• Already available commercially in the market • But, yet to reach saturation level • egs- IE3/IE4 electric motors, LEDs, EE pumps, invertor air compressors, recuperative burners • Provide concessional loans

Each stage requires different type of financial intervention

Major EE initiatives in the MSME sector

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- **BEE-SME Program** in 29 MSME clusters
- **TERI–SDC Partnership project** in the foundry, glass, and brick sectors (1994-ongoing)
- **World Bank–GEF Project**: Financing Energy Efficiency at MSMEs (2010-2014)
- **TERI–IGES Research Partnership** for application of low-carbon technologies (2010-2014)
- **JICA–SIDBI Financing Scheme** for Energy Saving Projects in MSME Sector (2008-ongoing)
- **KfW–SIDBI Scheme**: Financing Energy Efficiency Projects in the MSME Sector (2009-ongoing)
- **GIZ: Indo German Energy Programme** (IGEN) (2003-2014)

FIs perspective on EE financing

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- Limited demand from the MSMEs
- Lack of concessional financing schemes
- Concept of EE itself remains very confusing to the Fis
- Lack of customized banking products
- Small ticket size for EE interventions
- New risks other than financial risk
    - Technical risk
    - Commissioning risk
    - Performance risk

Understanding Financing of Energy Efficiency

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- Important to distinguish between investments made for modernization/expansion with investment decision based on EE criteria

Particulars	Unit	CNC machine	Air compressor
Capital Cost	Rs	40,00,000	14,00,000
Energy consumption	kWh/yr	25,000	150,000
Cost of electricity	Rs/kWh	6	6
Annual energy cost	Rs./year	1,50,000	900,000
Energy savings (current criteria)	%	60	30
Monetary energy savings	Rs/year	90,000	270,000
Payback period (recommended criteria)	Years	45	5.2

- Using energy savings based payback period rather than %age of energy savings

EE financing- common criteria

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Criteria normally used by international energy efficiency credit lines for providing grants and low interest loans:

- IRR (on energy savings only): around 10%
- Payback period (on energy savings only): between 7–8 years

Proposed approach for EE loans

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- List based approach for small ticket investments to reduce transaction costs (like JICA list)
  - Only for technologies where energy savings is certain
- Evaluate larger projects on a case to case basis
  - Only correlate energy saving and investment instead of % of energy savings
  - Seek technical assistance from skilled energy auditors for evaluating energy savings in relation to baseline
  - Verify assumptions and source of baseline data like supplier documentation

Recommendations- Enabling Finance for EE

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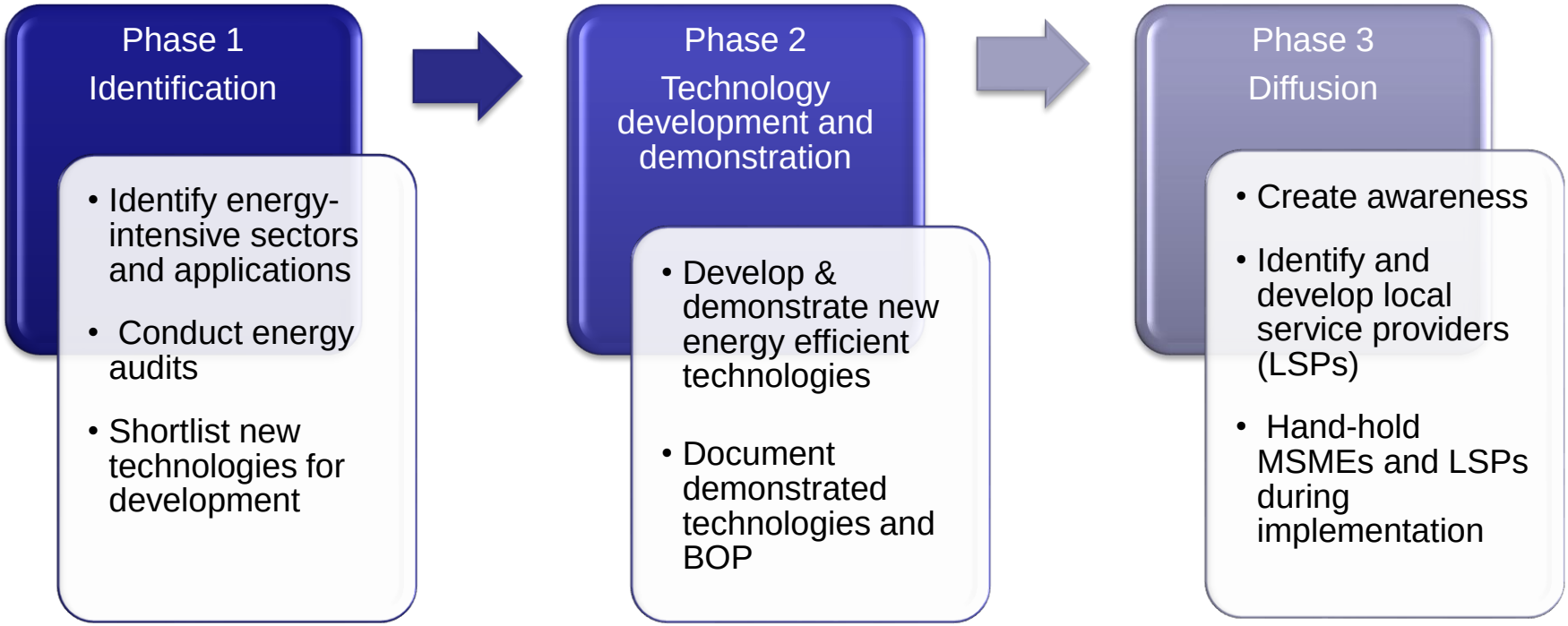
1. *Financing of pre-commercial technologies*

- **Public finance** through government for R&D
- Low cost finance from bilateral/multilateral agencies
- Funding as grant support or venture capital
- RDD&D in a phased manner



Recommendations- Enabling Finance for EE

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2. *Financing of semi-commercial technologies*

- Higher upfront costs, poor awareness, high perceived risks
- Require financial support for a no. of years after development
- **Provide capital subsidies and concessional interest rates** for new technologies
- Making the choice attractive in contract to conventional inefficient technologies

3. *Financing of commercial technologies*

- Push through **ESCO mode and concessional lines of credit**
- Better guidelines to evaluate technologies
- Focus on IRR and payback period calculated purely on energy savings alone

Recommendations- Enabling Finance for EE

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- ***Leveraging MSME-Banking partner relationship***
  - Government schemes for EETs should be channelized through **all commercial banks** engaged in MSME financing
  - MSME can obtain finance from own banking partner
  - Avoiding conflicts of hypothecation of assets among multiple banks
- ***Role of Government***
  - **Consultative process** for policy formulation
  - Promotion & Marketing of EE schemes in energy intensive clusters
  - Deepen the list of technologies eligible for subsidy- include semi commercial technologies
  - Strengthen local institutions

Energy Efficiency in SMEs-
A Cost Saving as well as carbon saving imperative

Thank you for your attention!

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