



RISK MITIGATION INSTRUMENTS **PERFORMANCE GUARANTEES AND** **INSURANCE FOR ENERGY EFFICIENCY**

Presented by
Sanjay Dube

5th March 2026

Risk Stands in the Way of Energy Efficiency Financing

- Energy efficiency financing is still hindered by perceived high risks by lenders, despite being cost-effective in the long run. The risks stands in the way of credit and performance of EE projects are:
 - Small project size
 - High initial capital requirements
 - Transaction costs
 - Long payback periods
 - Lack of data leading to risks for lenders
 - Lack of technical knowledge
 - Policy frameworks are evolving but inconsistencies remains
 - Performance of technologies
 - Split incentives



High Time for Increased Adoption of Financial De-Risking Instruments for Energy Efficiency

Unlocking energy efficiency market is critical. Common financial de-risking instruments already in use include:

- **Partial Risk/Credit Guarantees:** Provided by public/private agencies to reduce default risks for lenders.
- **Energy Service Companies (ESCO) Models:** Performance contracts where the provider guarantees savings, shifting performance risk from the building owner.
- **Green Bonds and Loans:** Targeted financing for energy efficiency projects, often offering lower interest rates.
- **Contingent Grants:** Funds provided only when specific, pre-defined risks materialize.
- **Technical Assistance/Project Validation:** Independent validation of energy savings, which reduces lender uncertainty.

The Emerging Financial De-Risking Instruments can Accelerate the Transformation of EE Markets

Out of various available instruments, the emerging EE financing instruments are:



Performance Guarantees

that are used to support insurance financing models



Insurance

that are to cover the losses if the anticipated energy savings are not delivered

Performance Guarantees – Energy Saving Insurance (ESI)

A standardized surety insurance contract is at the core of the energy saving insurance, with energy savings guaranteed, which can be an efficient instrument used by MSMEs and ESCOs, made up of four main components :

- **A standardized contract** to lower transaction costs, including a provision passing some of the risk of poor performance to the technology provider.
- **Energy savings insurance by a third-party insurer** to provide risk coverage for the businesses if the energy savings promised by the technology provider do not materialize.
- **A validation process** by an independent validation entity with experience in energy project compliance; and
- **A competitive financing structure** which may include credit lines from development banks for concessional loans, grants, and other incentives.



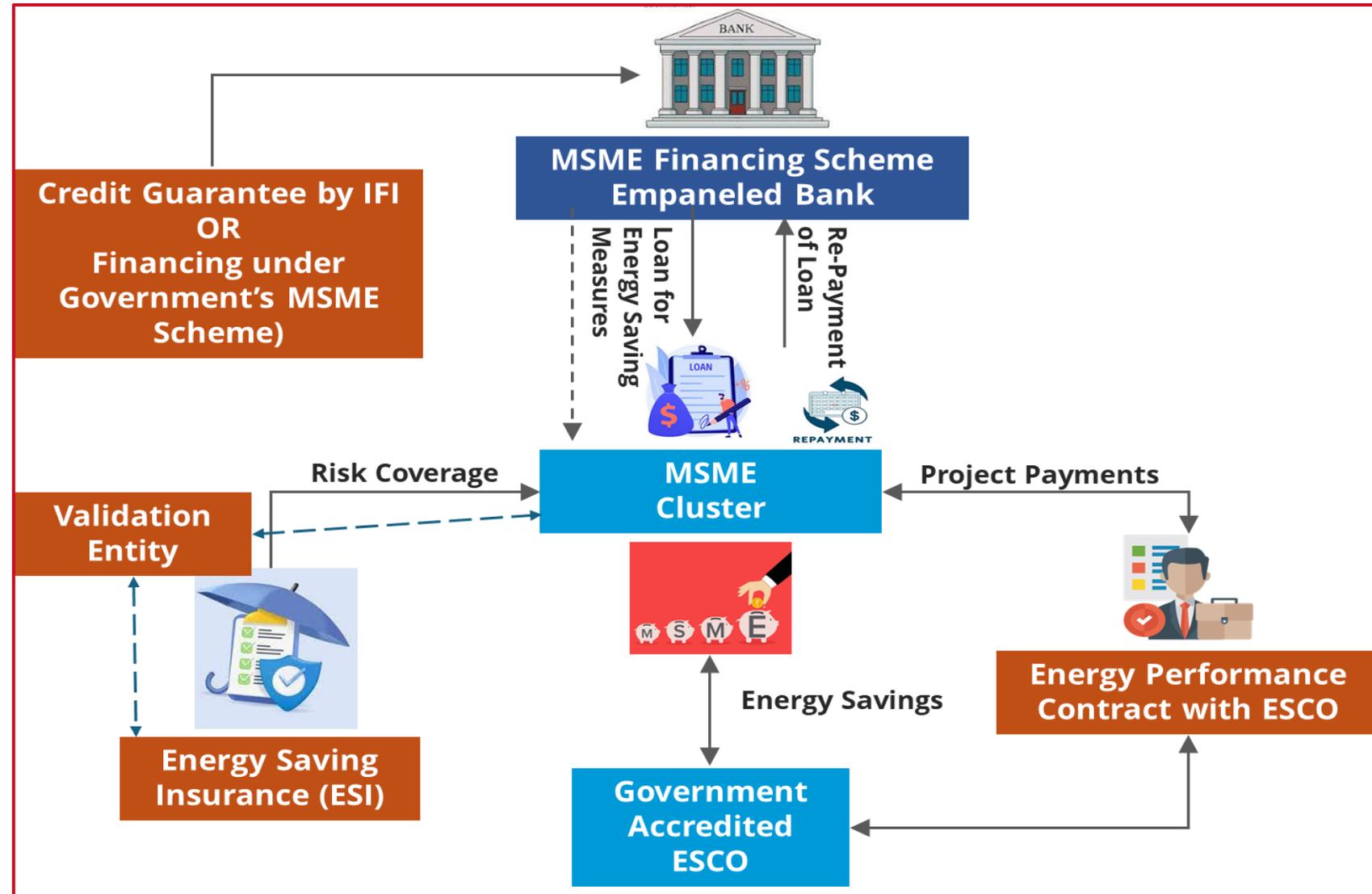
Energy efficiency insurance has been developed by **HSB**, a member of Munich Re Group, **to provide up to five years of protection for all aspects of the EE** projects, ranging from material damage (equipment breakdown) to business interruption (protecting against loss of revenue in the event of equipment failure).



- Energy Efficiency Insurance mainly to support the credit **enhancement of ESCOs.**
- The element which makes energy efficiency insurance unique is the asset performance insurance **covering a shortfall in energy savings.**
- Energy Efficiency Insurance is aimed mainly at **ESCOs who create a Special Purpose Vehicle (SPV)** for the implementation of energy efficiency project.
- To date, EEI has been written in **UK, Ireland, Spain, US, Canada.**

Financial De-Risking Instruments are gaining Popularity – A Case of ESI Roadmap in India

- India is working on the design of an ESI pilot.
- The stakeholders in India have already designed the ESI implementation structure.
- The technical support is being provided by OECD and ADB. IIEC is working on ground and coordinating with the key stakeholders.



How Insurance can De-Risk Energy Efficiency Financing



Insurance can mitigate the two key barriers: risk of under-realization of savings and aversion to disputes over savings.

- Insurance provides coverage for stipulated energy savings in exchange for a premium.
- Lower costs compared to traditional savings guarantees.
- Improved measurement, verification, and maintenance of energy-saving systems.
- Improved credit-worthiness of ESCOs.
- Enhanced competition by enabling smaller firms to bid on projects, where it would otherwise be impossible due to the inability to self-guarantee savings and performance.
- Reduced financial risks for facilities, MSMEs, ESCOs, and lenders.
- Enhanced competition by enabling smaller firms to bid on projects, where it would otherwise be impossible due to the inability to self-guarantee savings and performance.
- Lower costs of financing due to transfer of performance risk off the project balance sheet of borrower. Off-balance-sheet financing enables the owner to increase the budget for EEMs.

Few Hurdles are Still to be Removed

- **The supportive regulatory and policy environment for energy efficiency is still emerging in many developing countries.**

This delays the decision making at various stages.

- **In most of the emerging economies, ESCO markets are not very well developed.**

The emerging economies are very suitable candidates for the implementation of financial risk management instruments.

- **SME sector in emerging economies does not have sufficient access to finance for implementation of structured EE projects.**

SMEs interest in energy efficiency investments are limited to those which can be paid for without going to the bank or financed under any public or donor agency scheme.

- **The banks and insurance service providers are reluctant to engage in the new market.**

Their existing capacity and understanding of the benefits of energy efficiency project is limited.

- **Insuring energy savings is still outside the comfort zone of local insurers.**

The insurance service providers in developing countries are more comfortable insuring the equipment, rather than complex programs.

- **The stakeholders in emerging economies need targeted capacity building.**

Local financing institutions and insurance service providers need to improve their understanding of the energy efficiency market.

Thank you very much for your attention!

Contacts:

sdube@iiec.org

