

*Risk mitigation instruments
Experience with guarantees
and insurance for energy
efficiency*

Energy Savings Insurance Programme Indonesia

5 March 2026



This project is funded by the UK Partnering for Accelerated Climate Transitions (UK PACT) programme under Grant Reference Number PACT - 681.





Consortium Partners



BASE is a Swiss not-for-profit foundation and a Specialized Partner of UN Environment, founded in 2001. BASE has already successfully implemented the ESI model in over 12 countries.



BASE is partnering with ACE in Indonesia to implement and adapt the ESI framework to the local context.

This initiative is part of the UK PACT programme's broader effort to catalyze low-carbon development across the country.

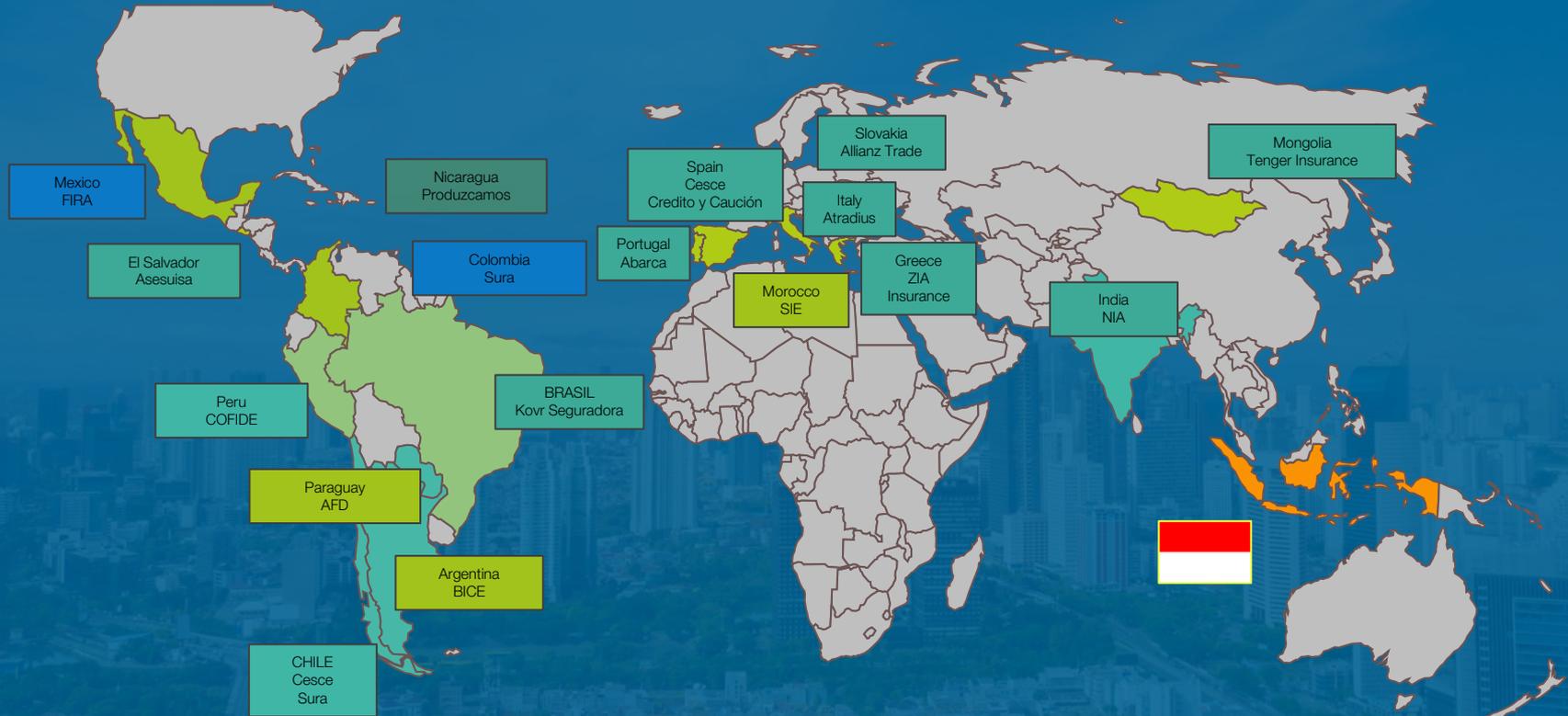
Our Goal

To catalyze a market transformation in energy efficiency by scaling up adoption of the ESI model



This project is funded by UK PACT, a UK Government initiative supporting countries to accelerate their climate transitions and achieve net-zero ambitions.

Energy Savings Insurance (ESI) Around the World





Key Market Characteristics

99% of all business are SMEs

61% of GDP is generated by SMEs

20-30% of the country's energy consumption is from SMEs

- SMEs often rely on outdated and inefficient technologies
- Adoption of energy-efficient (EE) solutions remains low due to higher upfront CAPEX compared to conventional solutions
- Most SMEs tend to favor low-CAPEX, high-OPEX alternatives that appear cheaper at first glance.
- These systems carry much higher OPEX, which can make up to 95% of the total cost of ownership during the equipment lifecycle, damaging enterprise productivity.



Market Potential



Small

Medium

TOTAL

Nr. Enterprises by sector (excl. Micro)

825,000 (out from 66 mn)

Nr. of Projects per yr

18,602

26,625

45,227

Avg. Investment per Project (USD)

60,000

Total Investment (Bn USD)

1.20

1.50

2.70

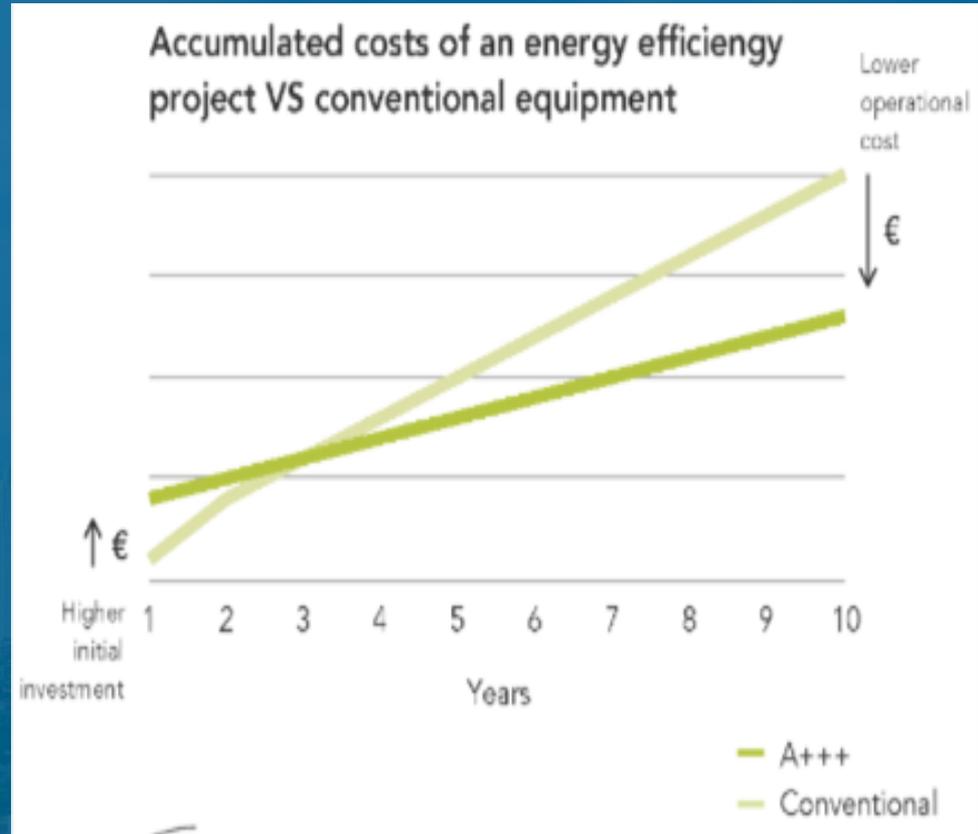
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Barriers



97% of room air conditioners sold in Indonesia were classified as low-efficiency.

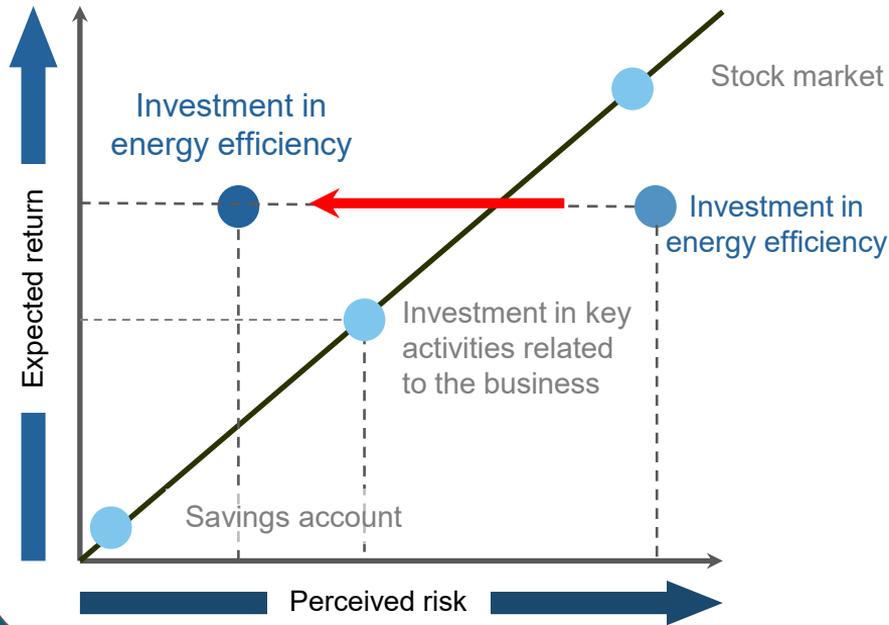
inefficient electric motors still represent the large majority of annual purchases in Indonesia (60-70%)



The Energy Savings Insurance rationale



Risk/Return tradeoff investment opportunities for enterprises



- SMEs often perceive energy efficiency investments as high-risk.
- The expected returns do not align with the perceived level of risk.
- The Energy Saving Incentive (ESI) model mitigates the perceived risk associated with these investments.
- This reduction in risk perception enhances the attractiveness of energy efficiency solutions and stimulates demand.

How it Works: ESI Key Features



The **ESI model** is the combination of financial and non-financial elements designed to work together to **reduce the perceived performance risk** and **build trust** in future energy savings and **mobilise private investments** in Energy Efficiency.





1. Standardised contract

An agreement between technology provider and customer with guaranteed energy savings clause.



2. Performance Insurance

Coverage of the guaranteed energy saving provided by an insurance (Surety Bond)



3. Technical Validation

The project and the guaranteed savings are validated by a third-party validation entity that also act as an arbiter in case of disagreement.

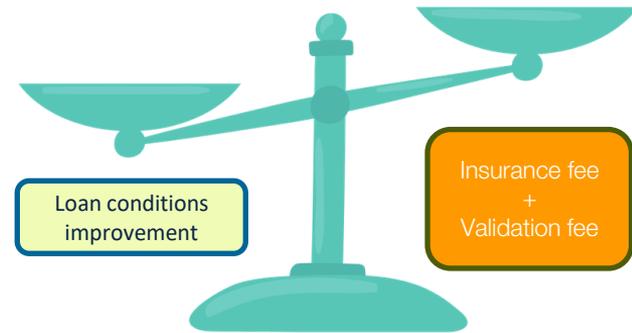
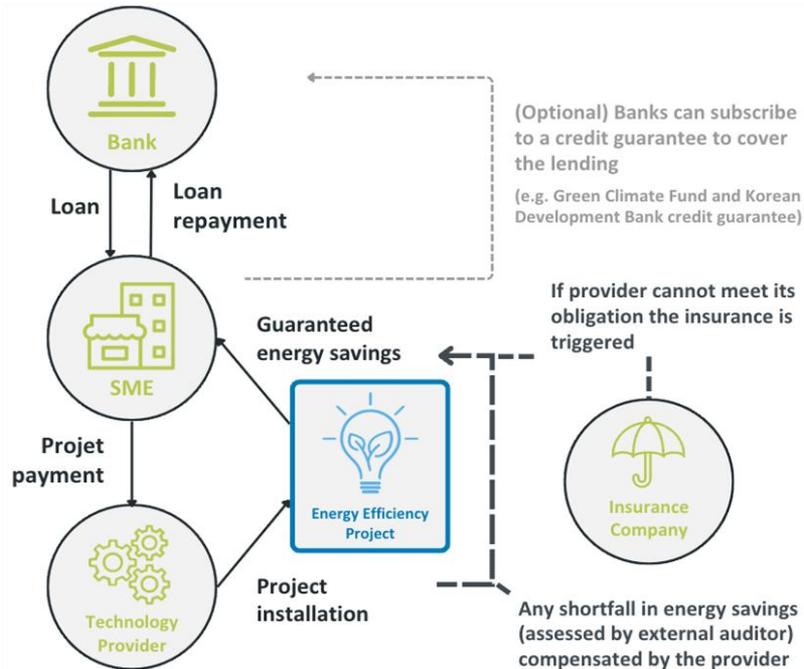


4. Green Financing

Potentially, endorsement of insurance benefits that can be assigned to the bank, reducing its exposure to performance risk and enabling better loan terms for clients.



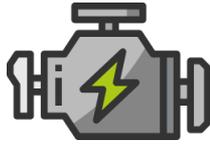
Objective: Encourage banks to adopt ESI in SME energy efficiency loans to reduce credit risk — enabling better loan terms that help cover validation and insurance costs.



Typical Technologies under ESI Model



Lighting



Motors



Air Compressors



Boilers



Solar water heaters



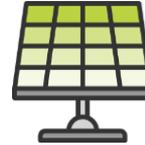
Refrigeration



HVAC



Co-generation



Photovoltaic Panels



Combination
of
technologies

BEST INTERNATIONAL CASE STUDY 1



- Country: Colombia
- Client: Hotel Villa Martha
- Technology Provider: Energitel
- Bank: Bancoldex
- Insurance company: Sura
- Validation Entity: Icontec
- Technology: Photovoltaics



BEST INTERNATIONAL CASE STUDY 2

2

- Country: Colombia
- Client: Hotel Neiva Plaza
- Bank: Bancoldex
- Insurance company: Sura
- Validation Entity: Icontec
- Technology: Solar water heaters
- Investment: 25,000 \$
- Energy Savings: 70%
- Payback: 3 years



BEST INTERNATIONAL CASE STUDY 3



- Country: Colombia
- Client: Hospital Méderi
- Technology Provider: SSE
- Bank: Bancoldex
- Insurance company: Sura
- Validation Entity: Icontec
- Technology: Solar water heaters
- Investment: 200,000 \$
- Energy Savings: 23.000 \$/year
- Payback: 9 years



BEST INTERNATIONAL CASE STUDY 4



- Country: Mongolia
- Client: XacBank Central Offices
- Technology Provider: Monhorus
- Bank: XacBank
- Insurance company: Tenger Insurance
- Validation Entity: Ureca
- Technology: Solar PV
- Investment: 20,000 \$
- Energy Savings: 24,918 kWh/year



THANK YOU FOR YOUR ATTENTION

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