Energy Savings Insurance – helping SMEs to access financing for Green Technology investments



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Asian Development Bank Joint SDSC-FIN-ENE Webinar

CONTENT

- 1. ABOUT BASE
- 2. BARRIERS FOR INVESTMENT
- 3. ESI AROUND THE WORLD
- 4. THE ESI MODEL
- 5. HOW THE ESI MODEL WORKS
- 6. THE ESI ELEMENTS
- 7. TECHNOLOGIES





WHO WE ARE

BASE is a Swiss not-for-profit foundation and a Specialized Partner of UN Environment.

Our vision is a world where markets are transformed, and sustainable energy and climate change solutions are the norm, not the exception.

WHAT WE DO

We develop innovative, actionable financial strategies and market-driven solutions to unlock investment in SE and to tackle climate change.

Around the world, we work with all markets and segments including those that are challenging and underserved.

ABOUT BASE



BASE'S AREAS OF WORK



RENEWABLE ENERGY



ENERGY EFFICIENCY



CLIMATE FINANCE



ADAPTATION AND RESILIENCE



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ENERGY
ACCESS
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LAND USE



ELECTRIC MOBILITY



CIRCULAR ECONOMY

ABOUT BASE

WHO WE WORK WITH

Partners are essentia to our solutions.

- BASE works with a variety of players and acts as a bridge between the public and private sector.
- Our partners include: multilateral development banks, national banks, financial institutions, development agencies, intergovernmental and philanthropic organisations.







BARRIERS TO INVESTMENT

ENERGY EFFICIENCY

A barrier identified is the high upfront cost of energy efficiency investments:

- Energy efficiency equipments are usually more expensive than average ones.
- The initial investment of the traditional system might be lower and more attractive to the client.
- Traditional equipments have a higher cumulative cost; it spends more energy.

CUMULATIVE COSTS





BARRIERS TO INVESTMENT

ENERGY EFFICIENCY





BARRIERS TO INVESTMENT

ENERGY EFFICIENCY

The ESI model tackles the perception of high risk on energy efficiency investments.

Other barriers for EE include:

- Higher upfront costs
- Lack of trust (among actors, in future energy savings)
- Competing investments opportunities

SMEs' Investment Decision-making process





ESI AROUND THE WORLD

Geographic coverage of the ESI model

- Initiated in Latin America with the Interamerican Development Bank (IDB) / Danish Government
- Expanded to Europe with European Commission H2020 funding programme)
- Reaching to Asia with support of the Green Climate Fund (GCF)
- Reaching to Africa with support of the Climate Emergency Collaboration Group (CRCG)





ESI AROUND THE WORLD

THE ESI MODEL

RECOGNITION OF THE MODEL AROUND THE WORLD



The ESI model was recognised by the Global Innovation Lab for Climate Finance as one of the most promising instruments to mobilise private sector investments in energy efficiency.



Swiss Fina Sustainable Econ

ESI also features in the <u>G20 Energy</u> <u>Efficiency Investment Toolkit</u> by the UNEP FI and in the Swiss Sustainable Finance compendium of instruments for <u>Financing the Low-Carbon</u> <u>Economy</u>.





THE ESI MODEL

THE ESI MODEL ELEMENTS

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



Standardised Contract:

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



Energy Savings Insurance:

Coverage of the guaranteed energy saving offered by an insurance for up to 5 years.



Technical Validation Process:

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

Financing Structure:

Facilitated access to green credit lines with competitive conditions by financial institutions to EE customers.

THE ESI MODEL

THE ESI MODEL KEY ACTORS

Key Stakeholders and main characteristics



Technology Provider (TP) Increases sales in high-energy efficient products and is first liable for the energy savings guarantee



Clients (CL) SMEs who invest invest in EE, are the loan

takers and beneficiaries of the insurance



Validation Entity

Is a neutral and credible actor in the field of EE, for project ex-ante evaluation and arbitration of savings



Insurance Company

Regulated in the local market to offer surety bonds.

Finance Institutions (Fis)



Mobilise green products and can benefit from the reduced risk of repayment (project failure).





How the ESI model works (i)

1. PREPARATION PHASE

An energy efficiency technology provider offers a project with guaranteed energy savings.





2. CONTRACT ACTIVATION

A a third-party validation entity evaluates the project's energy savings. The insurance company covers the validated energy savings, and the contract is activated.

3. IMPLEMENTATION PHASE

The technology provider installs the energy efficient equipment, and the validation entity validates on-site it is according to the contract.



How the ESI model works (ii)



4. OPERATION PHASE

The operation of the new equipment results in reduced energy costs and improved productivity.

Maintenance services by the technology provider ensures that the equipment is operating optimally.

5. SAVINGS MONITORING

The energy savings are measured and reported by the technology provider via a simple online system where they are checked and can be approved.





6. INSURANCE COVERAGE

In case of disagreements on the savings achieved, the validation entity steps in as an arbiter. If the savings are not achieved, and the technology provider is not able to respond, the insurance covers the guaranteed savings.



THE 5th ELEMENT





A functional interface developed to facilitate the workflow and information access of the different key actors of the energy efficiency project. The main characteristics are:

TRACKING OF PROJECT PROCESS

It registers information, documentations and actions of the project: proposal validation, contract activation, installation validation and monitoring reports (GHG emission reduction)

DEVELOPED IN BLOCKCHAIN

Increased transparency, trust, traceability and reliability of information

SECURE AND TAILORED ACCESS

Accessed by TPs, Clients, Validation Entity, Insurance companies and Financial Institutions through a login and password, secured area

Beneficiaries of track&trace reporting:



STANDARDISED CONTRACT



The main characteristics are:

- ✓ Easy-to-understand, signed by TP and Client
- ✓ Creates trust
- \checkmark Future savings guaranteed by the provider
- Technical validation and insurance requirements defined in contract

Actors involved:



- ✓ Structured on a standard supply, installation and maintenance contract model
- Prepared and adapted to the country regulations and practices



VALIDATION PROCESS





INSURANCE (i)



Actors involved:



- $\checkmark\,$ Surety bond type of insurance: three parties involved
- ✓ Covers clients in the event promised energy savings are not achieved, and the TP cannot fulfil their commitments
- ✓ Equivalent to a bank guarantee

INSURANCE (ii)



How the insurance works:

- ✓ Is linked to the Standardised contract and triggered if specific clauses of the contract are not met.
- ✓ In case of the reported energy savings are not agreed by Client and TP, an arbitration process is initiated.
- The Validation Entity carries out the arbitration procedure, assessing potential energy savings defaults to be compensated to the Client.

Insurance Claim





FINANCING STRUCTURE



Main characteristics are:

- \checkmark Client as investor and credit taker
- ✓ Banks mobilise their green credit lines (or create new products)
- ✓ Links existing supporting financial mechanism (e.g. incentives, credit guarantees, etc.).
- \checkmark FIs are engaged and trained to understand the functioning and interaction



 \longrightarrow Financial flow

----> Financial flow, if existing instrument available in the country







Motors



Air Compressors





Refrigeration



HVAC





Boilers

Co-generation

Technologies included in the ESI Europe implementation



Photovoltaic Panels



Solar water heaters



Combination of technologies



CONCLUSION

THE ESI MODEL

IN A NUTSHELL

- Developed to mobilise (SMEs) demand for EE investments
 - 4 ESI model Elements (plus 1): Standardised Contract Energy Savings Insurance Validation Process Financing Structure Management Information System
- Implementation requires initial grant /technical assistance for stakeholder engagement and elements development in a new market





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THANK YOU FOR YOUR ATTENTION

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Case I – NEIVA PLAZA

Case Studies: Colombia

Location: Neiva Huila Project: Replacement of boilers for solar thermal system for water heating. Capacity of 600 L/day Total Investment: COL\$120 M (USD 30k) Energy Savings: 70% vs old system. Payback: less than 3 years

Supporting the technology provider in the implementation of the program



Source: Interamerican Devlelopment Bank <u>https://youtu.be/UBryusgsYco</u>



Case II – HOSPITAL UNIVERSITARIO MAYOR - MÉREDI

Case Studies: Colombia

Location: Bogotá

Project: Replacement of old solar water heating system (30 years old) for a new one. Capacity of 28.800 L/day plus backup system with heat pumps of 15 ton c/u **Total Investment:** COL\$700 M (USD 200k) **Energy Savings:** 46.200 m³ gas/year (COL\$ 74 M/year)

Provider selected via tender. Support requested from the final client side (hospital). Support in the validation process of the provider and the project. Support to the hospital and the technology provider





Source: Interamerican Development Bank https://youtu.be/Ss-ZRh1-HkM