EVALUATION & LEARNING FACTSHEET SERIES

Brazil – Industrial Energy Efficiency project (PotencializEE)

PROJECT NAME	CO_2 MITIGATION	PROJECT DURATION	SECTOR	LOCATION
Brazil – Industrial Energy Efficiency (PotencializEE)	10.315 tCO_2e (by end of 2024)	2020-2027	Industry	

Mitigation Action Facility

On behalf of

Supported by:

Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety of the Federal Republic of Germany

IKI INTERNATIONAL CLIMATE INITIATIVE

UK Government

Danish Ministry of Climate, Energy and Utilities

CHILDREN'S INVESTMENT FUND FOUNDATION

The project

OBJECTIVE

The project aims to unlock Brazil's vast potential for industrial energy efficiency (EE) by strengthening financial, technical, and policy capacities across the EE market, driving investments that reduce GHG emissions and improve industrial competitiveness.

CONTEXT

Industry accounts for one third of Brazil's final energy consumption and around eight percent of national GHG emissions, amounting to 183 million tonnes of CO_2e per year.

Despite existing policies, regulations, and funding mechanisms, the EE market remains underdeveloped. Small and medium-sized enterprises (SMEs) often lack access to affordable finance and technical support, while local banks have limited experience in assessing EE projects.

APPROACH

PotencializEE addresses these barriers by creating an enabling environment for EE investments in the industrial sector, initially in São Paulo and now scaling nationwide.

- **Mobilising finance** Establishment of an EUR 8 million Guarantee Fund within Desenvolve SP to unlock up to EUR 64 million in EE loans.
- **Building capacities** Training local financial institutions to assess, finance, and manage EE projects; supporting ESCOs and technology providers to deliver bankable, low-risk solutions.
- **Supporting SMEs** Providing technical assistance to identify EE opportunities and prepare investment proposals.
- **Strengthening policy frameworks** Advising federal and state governments to enhance Brazil's EE policies and integrate project learnings into national strategies.

THE FACTS

Project name
Brazil – Transformative Investments for Industrial Energy Efficiency (PotencializEE)

Funding volume provided
EUR 24.3 million

Project duration
2020-2027

Call
5th Call

Partner ministries
Ministry of Mines and Energy;
Ministry of Development Industry and Foreign Trade

Implementation Organisations
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Project partners
National Service for Industrial Training (SENAI)
Brazilian Development Bank (BNDES)
São Paulo State's Development Bank (Desensolve SP)

Project status
Active

Phase
Implementation

The mid-term results

The project is effectively supporting the promotion and implementation of energy efficiency solutions in Brazil's industrial sector, driving investment, innovation, and sustainable growth.

EURO 64 m

in loans for EE investments were unlocked through the newly established São Paulo State Guarantee Fund for Energy Efficiency Development (FAEE) at Desenvolve
SP, leveraging public finance to crowd in private capital.

44 BANKABLE ENERGY EFFICIENCY PROJECTS

of investments have been mobilised by the project in the private sector for MSW facilities and IWM practices, which is more than double the original target of 300 million euro.

30 WOMEN ENERGY PROFESSIONALS

participated in targeted mentoring programmes, strengthening gender diversity and leadership in the EE sector.

370,000 tCO_2e

in direct emission reductions are expected during the implementation phase, with a projected 1.1 million tonnes CO_2e mitigated over the lifetime of installed technologies.

1,000+ SMEs

were reached through awarenessraising and training activities, improving understanding of EE benefits and building confidence in financing mechanisms.

EURO 143,5 m IN CO-FINANCING

is expected to be mobilised from PROCEL and SEBRAE for a follow-up programme that expands the model to at least five additional states, embedding EE into Brazil's broader green industrialisation strategy.

EURO 8 m

were approved as initial capital for the guarantee mechanism, enabling a financial structure that now serves as a replicable model for industrial EE financing across Brazil.

675 INDUSTRIAL COMPANIES

in São Paulo and other regions will benefit directly or indirectly from project-supported instruments and technical assistance.

1 NATIONAL CAPACITY HUB

was institutionalised at SENAI, ensuring long-term provision of EE training, audit services, and support for SMEs beyond the project duration.

The predicted legacy

Edeir Marçal, SENAI-SP consultant, presents the PotencializEE Energy Efficiency Seal to Murilo Fernandes, Production Manager at Innovak, and Fancisco Fernandes, DEO at Innovak. Innovak is one of the companies participating in the program.

An energy efficiency auditor visits a polylene factory in Indaiatuba, São Paulo.

PotencializEE is establishing the first dedicated financial mechanism for industrial EE in Brazil, marking a structural shift in how SMEs access finance for low-carbon technologies. By combining targeted financial instruments with institutional capacity-building, the project demonstrates how risk reduction through a guarantee fund can unlock private sector investment in EE. The institutionalisation of the São Paulo State Guarantee Fund for Energy Efficiency Development within Desenvolve SP ensures that this mechanism continues beyond the project's lifetime, strengthening Brazil's green finance landscape and supporting long-term industrial decarbonisation.

Building on its achievements, PotencializEE is extended until 2027 to scale up across at least five additional Brazilian states. With an extra EUR 6 million in funding, the project reaches 1,000 SMEs directly and 10,000 MSMEs indirectly, mobilising resources from PROCEL and SEBRAE. This expansion contributes to Brazil's green neo-industrialisation agenda and national energy transition. The project's methodologies are now embedded within SENAI and the National Confederation of Industry (CNI), reinforcing local expertise to deliver energy audits and investment-ready project proposals.

Beyond financial and institutional innovation, PotencializEE is driving a cultural shift within Brazil's industrial sector, proving that EE is both a competitive advantage and a key pillar of sustainable growth. Its systemic approach offers a scalable blueprint for EE markets across Latin America, enabling low-carbon industrial transformation and positioning Brazil as a regional leader in green finance and innovation.

ACHIEVING TRANSFORMATIONAL CHANGE

A transformational effect of the project is likely because PotencializEE has shifted Brazil's industrial sector toward recognising energy efficiency as a driver of competitiveness and sustainability, establishing a lasting ecosystem that aligns financial, policy, and industrial actors for long-term decarbonisation.

The preliminary learnings

The mid-term evaluation conducted in 2023 identified several lessons that have informed the project's subsequent implementation and can help shape future interventions and replication efforts. The following learnings highlight how the PotencializEE team has applied the recommendations to strengthen outcomes and ensure lasting impact:

LEARNING 1

Maintaining direct support to SMEs to accelerate uptake of EE measures

The project's direct technical support to SMEs through SENAI has significantly increased the number of energy audits that can mature into viable EE investments. Key stakeholders expressed strong confidence that thermal EE projects can yield investment returns within one to two years.

RECOMMENDATION

If tangible benefits are effectively packaged and communicated, more SMEs are likely to adopt EE measures. Developing a stronger market for thermal energy solutions could encourage greater participation by ESCOs.

PROJECT RESPONSE

Advanced calculation and data-processing tools were developed and integrated into the project's digital M&E system. Additional digital solutions are currently being designed to automate viability assessments for thermal energy-efficiency technologies, including heat pumps, solar thermal systems and cogeneration.

LEARNING 2

Strengthening engagement with commercial banks to expand access to finance

The main financial achievement, loans by Desenvolve SP secured by the FAEE guarantee fund, represents an important milestone. However, access to finance for SMEs still depends on a broader enabling environment, including enough eligible ESCOs and consultants, active government partners, and supportive macroeconomic conditions.

RECOMMENDATION

Future EE initiatives should diversify financing sources and continue engaging commercial banks. Communicating concrete EE project results to financial institutions will help sustain their interest, even in periods of high interest rates.

PROJECT RESPONSE

A contract template for Desenvolve SP was developed to enable commercial banks to access the Guarantee Fund. Additionally, an EE calculator was introduced for industrial SMEs as part of the EE technology catalogue. This tool supports banks and facilitates outreach by banks to SME clients, including those accredited under the national FGEnergia guarantee scheme, thereby supporting widerbroadening financial participation in EE investments.

LEARNING 3

Communicating gender results more effectively to highlight inclusive progress

The project has made meaningful efforts to promote gender equity, yet these achievements have not been sufficiently communicated to all stakeholders.

RECOMMENDATION

Improved communication of these achievements and stronger collaboration with gender structures in partner institutions were recommended to increase visibility and impact.

PROJECT RESPONSE

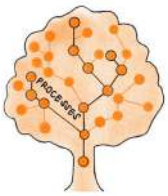
In line with its Gender Equality and Social Inclusion (GESI) Action Plan, the project conceptualised the expansion of its mentoring programme for women EE experts, to be implemented at the national level from 2025. The project also identified several women-led SMEs benefitting from EE investments for targeted communication activities and produced video testimonials featuring women energy auditors participating in the programme, amplifying their visibility, and inspiring further engagement in the EE sector.

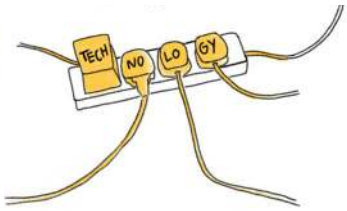
MITIGATION ACTION FACILITY KNOWLEDGE & LEARNING HUB

A comprehensive list of all lessons can be found in the full mid-term Evaluation & Learning Exercise (ELE) report available via the Mitigation Action Facility website. Just select the filter "Report" and the country you are looking for in the pulldown menu of our digital library.

What are the ELEs?

The Mitigation Action Facility engages in a number of strategic efforts to extract lessons learnt from its project portfolio and create valuable resources for future implementations. This is part of its role as Knowledge and Learning Hub. All projects with an overall duration of more than three years are subject to both a mid-term and a final Evaluation and Learning Exercise (ELE). These evaluations are part of the Mitigation Action Facility's approach to catalyse transformational change through continuous monitoring processes that support fearless learning. The ELEs follow a theoretical framework that combines document reviews, participatory workshops, and stakeholder interviews to collect evidence for the in-depth analysis of project results and lessons. Mid-term ELEs are conducted halfway through the project to assess early progress, while final ELEs analyse the overall impact and lessons learned at the end of the project. All ELEs can be accessed through the download library on Mitigation Action Facility's website. This factsheet is based on the mid-term ELE of the project "Brazil Transformative Investments for Industrial Energy Efficiency (PotencializEE)".





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