

# E-Platform for Financing Energy Efficiency - BDMG

## Project *Finanças Brasileiras Sustentáveis* — FiBraS

### Context

Minas Gerais' industrial sector encompasses more than 40,000 micro-, small-, and medium-sized enterprises (MSMEs), 63% of which are concentrated in sectors with high potential for energy efficiency (EE) investments such as textiles, metallurgy, food and beverage, non-metallic minerals and chemicals (FIEMG, 2020). In addition, SMEs, which account for 98.5% of Brazilian companies, provide 53.2% of all formal jobs (SEBRAE, 2018).

EE technologies identified for the selected sectors present saving opportunities between 30 and 60% and have an average payback of three years. Although industrial EE investments can yield high economic returns, their implementation faces a number of barriers, especially among MSMEs, such as lack of knowledge of EE investments benefits, unawareness of service providers (energy service companies - ESCOs) and limited access to existing credit lines due to high perceived risks and collateral requirements by financial institutions.

### Objective

The credit product and digital platform developed by the Development Bank of Minas Gerais (BDMG) aim to facilitate the access of MSMEs to financing options for energy efficiency improvements. The digital platform design envisioned to provide targeted enterprises with information on the benefits of EE investments and suitable technologies, and with support in the application process for suitable credit products. Its design considered a standardized and scalable solution for small businesses, through digitalization.

### Approach

The Project FiBraS supported the conduction of a market study with recommendations for the credit product and the adaptation of BDMG's existing digital platform, evaluating the following

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Project term	October 2018 – October 2022

aspects of the market potential: geographic distribution, company size, company sectors and energy use. The Project also provided guidance for the implementation of new technological features for the platform.

The Project FiBraS supported BDMG identify suitable minimum requirements to ascertain the EE potential of the measures undertaken by businesses, while not overburdening clients with costly audit procedures.

In addition, the commercial strategy was designed considering the EE potential of different segments, aiming to increase the added value for the final beneficiary, ESCOs and the bank.

The product focusses on financing EE measures that have simple installing and verification procedures, high economic return, and higher market demand such as lighting equipment and motors as illustrated in the table below.

Equipment eligible for replacement: Energy Efficiency (EE) Measures	Energy Saving (%)	Payback (years)
Air Conditioning	30 - 60 %	2 to 5
Fluorescent Lamps, by Tubular LED	40 - 60 %	2,5 to 3,5
Sodium Vapor Lamps, by LED Luminaire	40 - 65 %	2,5 to 4
Old engines by high-performance engines	25 - 40 %	2,5 to 5
Old refrigerators for more efficient ones	20 - 40 %	3,5 to 6

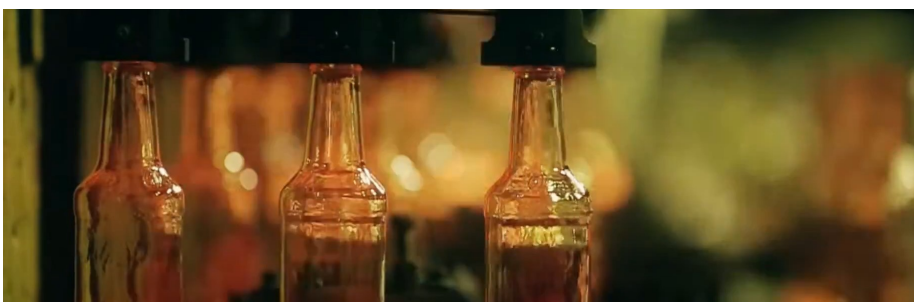


Photo © Trilha Media.  
Bottle production in a beverage company.

## Impacts

The baseline scenario anticipated that the product can reach 5,2% of the potential market share of Minas Gerais's SMEs in the industrial sector, which translates into an annual volume of around BRL 39 million.

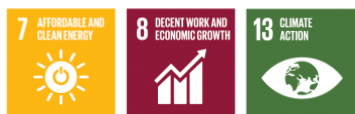
Depending on the market penetration, annual energy savings estimates range from 784,000 to 1.9 million MWh, representing a mitigation potential of 48,000 and 121,000 tons of CO<sub>2</sub>e/year.

Going forward, the following key-challenges could be addressed to scale up BDMG's EE platform:

1. Implement a communication strategy to better reach investment decision makers of SMEs from industrial sectors.
2. Support and simplify the process for the final beneficiary to provide the necessary documentation for the monitoring and verification procedures.
3. Improve safeguards to reduce the risk of leakage emissions from the potential re-selling or reusing of replaced equipment.

The adapted digital platform for EE investments has not been launched yet, but it is expected to improve BDMG's monitoring procedures contributing to improve the bank's environmental and social management systems (ESMS).

Through its activities, the project can have a significant positive impact across a variety of SDGs:



## FiBraS Project

The Project Green Financial Market Regulation and Green Bonds (*Finanças Brasileiras Sustentáveis* — FiBraS) is a Brazilian-German technical cooperation project implemented since 2018 by the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) GmbH in partnership with the Brazilian Ministry of the Economy and

the Central Bank of Brazil. It is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ).

The project has the objective of improving the framework conditions for the development of a green financial market in Brazil. It is structured in three components: (1) assessing and raising the importance of green and sustainable finance in Brazil's political agenda; (2) Strengthening the implementation of social and environmental risk management in the national financial system; (3) Expanding the offer of financial products and services aimed at financing sustain-able development in Brazil.

The "Digital Platform for Financing Energy Efficiency" (BDMG Efficiency) is one of five innovative green finance approaches that received support from the FiBraS Technical Assistance Facility under component 3.

## More information

Case Study (PT)

[E-Platform for Financing Energy Efficiency - BDMG](#)

BDMG website

[BDMG – Banco de Desenvolvimento de Minas Gerais](#)

GIZ Project website

[Green and Sustainable Finance \(FiBraS\) \(giz.de\)](#)

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