



UNITED FOR EFFICIENCY IN BRAZIL

PROJECT AT-A-GLANCE

Leapfrogging to Energy-Efficient and Climate-Friendly Commercial Refrigerating Appliances in Brazil



For more information, please visit:
www.united4efficiency.org

GEOGRAPHICAL SCOPE

Latin America and the Caribbean

Brazil



STATUS ACTIVE

STARTING DATE JULY 2021 CLOSING DATE DECEMBER 2022

TOTAL PROJECT COST

US\$ 600,000
GCF grant

DONOR
Green Climate Fund (GCF)

OTHER EXECUTING PARTNER
Ministry of Mines and Energy

TEAM LEADERS

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IMPLEMENTING PARTNER
United Nations Environment Programme

PARTNERS

Ministry of Economy, Ministry of Environment, National Institute of Metrology, Quality and Technology (INMETRO), Energy Research Company (EPE), Centro de Pesquisas e Energia Elétrica (CEPEL), Eletrobras, Brazilian Electrical and Electronic Industry Association (ABINEE), Metalfrio, Nidec Global Appliances, LABELO-PUCRS, Tecumseh



KEY PROJECT OBJECTIVES

Based on U4E Country Assessments, the reduction potential range in electricity consumption, monetary savings and GHG emissions mitigation in Brazil due to a market transformation to energy-efficient commercial refrigerators (2020 values) is very significant by 2030:

More than 9 TWh in direct annual energy savings
(avoided investment costs for 4 power plants of 500MW)

Over \$ 1.2 billion USD monetary savings in annual electricity costs

6 Million tonnes of CO2 avoided annually (equivalent to more than 3 million cars)



THE CHALLENGE

Brazil is the largest country in terms of land and population in the Latin America and Caribbean region (LAC), with currently more than 210 million people (40% growth since 1990). By 2019, the installed capacity was around 176 GW - 80% based on renewable energy, mostly hydropower. Nevertheless, the global impact is high due to the country size and energy consumption estimations, which are expected to grow 28% in the next 10 years (from 546 TWh in 2019 to 762 TWh by 2030)¹ and which will certainly trigger higher carbon emissions leading to significant environmental concerns.

The government of Brazil has made the commitment to implement measures on energy-efficiency. As indicated in their National Determination Contribution (NDC), one of the measures indicated to achieve the goal of reducing greenhouse gas emissions by 37% below 2005 levels, the goal is to achieve 10% of efficiency gains. The commercial sector - formed mainly by wholesale, retailers (e.g., supermarkets), hotels, restaurants, etc., is one of the areas where there is a high potential to reduce energy consumption by implementing energy efficiency standards and regulations. It is estimated that cooling accounts for more than 65% of the energy consumed at an average supermarket in Brazil, with around 25% for refrigeration appliances alone. Nevertheless, currently none of the equipment for the refrigeration commercial sector has Minimum Energy Performance Standards (MEPS) nor Energy Efficiency Labels. These are a combination of policy measures, which define the minimum efficiency levels and quality criteria which products must satisfy to be sold in the local market, and have proven to be a highly cost-effective option for removing inefficient products from a market, representing the foundation to ensure the success of any energy efficient product transition strategy. Increasing the efficiency of commercial cooling equipment is an outstanding opportunity and crucial to strategically realise the country's sustainable development priorities, fulfil its obligations under the Kigali Amendment to the Montreal Protocol, enhance the mitigation pathway under the Climate Agreement and alleviate pressure on Brazil's electrical grid.

¹ Source: https://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-490/PDE%202030_RevisaoPosCP_rv2.pdf

WHAT WE DO

United for Efficiency's team of experts, following the U4E Integrated Policy Approach, provides technical assistance to Brazil in order to achieve the promotion, demonstration, deployment, and transfer of innovative low-carbon technologies, particularly high efficiency and climate-friendly commercial refrigerators.

The Project will seek to achieve concrete objective, such as:

- Development of a National Market Assessment and conduct a study on international best practices to support the implementation of MEPS, labels and stamps for commercial refrigeration in Brazil.
- Develop specific technical recommendations to implement MEPS, energy labels and stamps regulation for commercial refrigerators and delivery of capacity building to local stakeholders on the subject.
- Build capacities of National laboratories, the supervisory agency (INMETRO – Metrology, Quality and Technology National Institut) and the National Electric Energy Conservation Program (PROCEL) on Monitoring, Verification and Enforcement in line with the proposed MEPS, especially on regards to testing standards and product database for commercial refrigerators' market surveillance.
- Develop recommendations/guidelines on Sustainable Public Procurement to support institutional procurers to drive the purchase of higher performance Refrigerator products.
- Development of communication campaign material and infographics for raising consumer awareness on the benefits of sustainable commercial refrigerators and upcoming MEPS, stamps and label policies.
- Delivery of a regional workshop to inform neighboring countries on the new MEPS, label and stamps for commercial refrigerators in Brazil, so they can leverage on the content, approach and lessons learned.

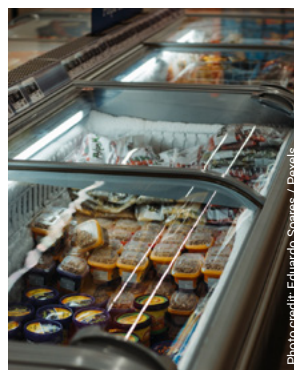


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UN ENVIRONMENT'S ROLE

United for Efficiency provides developing and emerging economies through their in-house experts and specialized partners with tailored technical support to transform their markets by accelerating the adoption of energy-efficient lighting, appliances, and equipment. Currently it is present in more than 30 countries worldwide. Based on each country's circumstances, United for Efficiency works with any of the following products: lighting, refrigerators, room air conditioners, motors and transformers - 5 products that together consume over half of the world's electricity.

By following United for Efficiency's Integrated Policy Approach and covering crucial elements from the transformational pathway, such as Standards and Regulations; Labelling and Communication strategies; Financial Mechanisms; Monitoring, Verification and Enforcement; and Environmental Sound Management, countries achieve a lasting market transformation, allowing monetary savings on their utility bills, helping businesses thrive through greater productivity, enabling utilities to meet growing demand for electricity, and assist governments in reaching their economic and environmental ambitions. Such support is available at three levels: Global, Regional and National providing several tools and resources to support committed countries in their efforts, such as Policy Guides, multiple assessments (country level, street lighting, etc), regional policy roadmaps and harmonization process recommendations, development of training for policymakers and practitioners and National Action Plan implementation support.