



SUPPORTING THE INTRODUCTION OF A REFRIGERATOR RECYCLING PROGRAMME, INCLUDING A DEMONSTRATION FACILITY, IN BRAZIL

As of: November 2021

Almost every tenth refrigerator in Brazil is older than 16 years. The problem is that the old appliances operate with climate-damaging fluorinated gases (F-gases), which not only escape during use, they also enter the atmosphere during conventional disposal. The project is setting up an exemplary recycling system for old refrigerators in Brazil. The most important part of this system is a pilot plant that recycles several thousand refrigerators a year. It recovers the greenhouse gases contained in the cooling circuits and in the insulating foam. Training and qualification measures are carried out for the operation and maintenance of the plant. The project also replaces old appliances with new F-gas-free refrigerators. Subject to the Clean Development Mechanism (CDM), emission certificates can be obtained through the recycling and the replacement of the old appliances. In addition, the project advises the responsible authorities on the introduction and updating of relevant national standards and norms.

State of implementation/results

- Recycling plant with an annual capacity for 350,000 refrigerators installed, accepted and commissioned; CFC recovery rate is 93 per cent.
- Training of operating company staff for environmentally sound and safe operation of the recycling plant
- Dissemination of standards and norms: In July 2011, the standard NBR 15960 "Refrigerants - Recovery, Recycling and Regeneration (3R) - Procedures" came into force-- After 9 years, the sector agreement for waste electronic and electrical equipment was signed in October 2019
- A working group to implement the new "Solid Waste Management Policy" was established
- Start of development of a demo take-back system of old refrigerators in the State of Minas Gerais
- Cooperation with utilities CEMIG, CEPISA and

PROJECT DATA

Country/Countries:

Brasilien

Implementing organisation:

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Political partner(s):

- Brazilian Association of Refrigeration, Air Conditioning and Heating
- Ministry of Environment - Brazil

Implementing partner(s):

- Electricity Company of Minas Gerais - Brazil
- Ministry of Environment - Brazil
- Revert Brasil

BMU grant:

€ 7,391,751

Duration:

11/2008 till 12/2021





CEAL ensures the recycling of about 30. 000 refrigerators annually

- Collection point for waste electrical and electronic equipment established
- Advice on updating the national refrigerator recycling standard ABNT NBR 15833; this was updated with support from the project in 2018.

