

ENERGY PERFORMANCE CONTRACTING FOR RESIDENTIAL RETROFITTING IN ULAANBAATAR CITY (RePaRe)

Context

Ulaanbaatar, the world's coldest capital, is home to about half of Mongolia's population. Approximately 20% of the city's residents live in prefabricated panel buildings, which make up 30% of all structures in Ulaanbaatar. These buildings are poorly insulated, leading to cold indoor temperatures and mold growth during winter, when temperatures can drop to minus 40 degrees Celsius.

Improving the energy efficiency of these aging panel buildings is a key priority for the construction sector and aligns with Mongolia's climate goals, which include commitments to reduce greenhouse gas emissions and enhance energy sustainability. The need for energy-efficient solutions is further intensified by rising energy costs and increasing demand for heating.

Additionally, rapid urbanization continues to strain Ulaanbaatar's infrastructure and services, resulting in overcrowding and inadequate public utilities. To address these challenges, the project focuses on developing sustainable financing mechanisms, implementing policy changes to promote energy efficiency, and enhancing the energy efficiency of these buildings.

Commissioned by

The Mitigation Action Facility, on behalf of the German Federal Ministry for Economic Affairs and Climate Action (BMWK) and the UK Department for Energy Security and Net Zero (DESNZ)

Country

Mongolia

Political Partner

Ministry of Urban Development, Construction and Housing (MUDCH)

National Partners

Ministry of Urban Development, Construction and Housing (MUDCH)
Municipality of Ulaanbaatar City (MUB)
Energy regulatory commission (ERC)
Housing public utilities authority (OSNAAUG)

Duration

2022 - 2027

Objective

The project addresses financing challenges for retrofitting residential prefabricated buildings in Ulaanbaatar to improve energy efficiency by establishing a sustainable financing mechanism, enhancing capacity of stakeholders, supporting government policies, and raising awareness about energy efficiency.



Image 1: RePaReproject SDG contributions



Image 2: An old prefabricated panel building
Copyright GIZ Mongolia



Image 3: A retrofitted prefabricated panel building
Copyright GIZ Mongolia

Approach

The project aims to initiate large-scale thermo-technical retrofitting in prefabricated panel buildings to enhance energy efficiency. To achieve this, the project will implement the following key outputs:

- Establishing a Building Energy Efficiency Facility to ensure long-term financing for the retrofitting of residential prefabricated panel buildings.
- Retrofitting approximately 200 residential prefabricated panel building blocks in Ulaanbaatar by the end of the project term.
- Supporting the Mongolian government in enacting energy sector policy changes, sector reforms, and consumption-based tariff adjustments. Capacity development for institutional and technical expertise among stakeholders.
- Conducting information campaigns to raise awareness of energy efficiency and motivate public participation in the project.



- ✓ Intergovernmental project agreement of Mongolian and German government
- ✓ Implementation agreement between GIZ, Ministry of Urban Development, Construction and Housing and the Municipality of Ulaanbaatar
- ✓ Framework agreement between GIZ, Ministry of Urban Development, Construction and Housing, Municipality of Ulaanbaatar, Energy Regulatory Commission and the Housing public utilities authority

Published by

Deutsche Gesellschaft
für Internationale Zusammenarbeit (GIZ)
GmbH

In cooperation with Ministry of Urban Development, Construction and
Housing and Municipality of Ulaanbaatar

Contact

Jonas Renner

Energy performance contracting for
residential retrofitting in Ulaanbaatar City
Mongolia, Ulaanbaatar, United Nation's
Street, Building 38, 2nd Floor Chingeltei
District, 4th khoroo,

Tel: +976 77110515
E-mail: jonas.renner@giz.de
Web: www.repare.mn



MINISTRY OF
URBAN DEVELOPMENT
CONSTRUCTION AND
HOUSING



Commissioned by

Mitigation Action Facility on behalf of
the German Federal Ministry for Economic
Affairs and Climate Action (BMWK) and the UK
Department for Energy Security and Net Zero
(DESNZ)

Address

Mitigation Action Facility
Köthener Straße 2-3, D-10963 Berlin, Germany

Layout / Fotos

GIZ in Mongolia / Project

Druck
Stand

Admon Print LLC
May 2025

GIZ in Mongolia is responsible for the content of this publication.

contact@mitigation-action.org
www.mitigation-action.org