



Non-Technical Summary

Georgia Public Buildings – Energy Efficiency Project

2022

Contents

1. Introduction	3
2. What does the Project include?.....	3
3. Why are these energy efficiency measures required?	4
4. What is the benefit of the Project to local people and the economy?	4
5. Potential adverse socio-economic impacts of the Project.....	5
6. What will be the key environmental impacts of the Project and how will they be mitigated? 6	
7. Gender and disability impacts	8
8. Stakeholder engagement	8
9. Contacts	Error! Bookmark not defined.

1. Introduction

The European Bank of Reconstruction and Development (EBRD) is considering providing finance to Georgia to fund energy efficiency (EE) upgrades and rehabilitation in up to 200 public buildings across the country. The proposed investment will be co-financed by EU Neighbourhood Investment Platform (NIP) grant. The Project will contribute to Georgia's green economy transition. It will support Government strategies aimed at reducing the country's energy demands and greenhouse gas emissions.

The Project is expected to be implemented by the Municipal Development Fund (MDF), a state-owned agency responsible for the implementation and monitoring of infrastructure projects.

This Non-Technical Summary (NTS) provides a description of the Project and describes the potential benefits and impacts associated with the Project's construction and the operation of the planned EE measures. It also makes recommendations as to how these impacts can be mitigated and managed through all phases of the Project's development. In addition, it provides a summary of the approach to future stakeholder engagement.

2. What does the Project include?

2.1 The Project

In 2018, a Scoping Study was developed by EBRD to investigate the viability of an investment programme to introduce improved energy efficiency measures in public buildings in Georgia. This Study showed that the introduction of EE measures in public buildings in Georgia is financially and economically sensible – particularly when introduced in administrative and some educational buildings.

The developed inventory in the Scoping Study covers the approximately 4,000 publicly-owned buildings within Georgia. 200 buildings from this inventory will benefit from the Project.

Although the buildings to be included in this Project have not yet been selected, possible EE measures include:

- Window replacement;
- Window repair;
- Wall insulation;
- Roof / ceiling / floor insulation;
- Heating system improvements;
- Upgrading of lighting and other electrical equipment; and
- Reconstruction and structural improvements (such as wall and roof repair).

The proposed rehabilitation will mainly focus on existing schools, however other public buildings may also be included.

2.2 Project Status

The Project is currently being prepared, and no construction has yet been carried out. Project-specific management plans and other formal management systems to be employed on this specific Project have not yet been developed. Energy audits and detailed designs will be

carried out by consultants for MDF before construction begins, and they will clearly define the measures to be introduced in each building (e.g. thickness of thermal insulation to be used, boilers to be replaced, specification of windows to be installed, etc.).

An assessment of the corporate arrangements currently in place at MDF for Environmental, Health, Safety and Social Management has been undertaken. This assessment and the resulting action plans will ensure the wellbeing of the users and local environment of these public buildings during construction.

3. Why are these energy efficiency measures required?

There are over 4,000 publicly-owned buildings in Georgia, the vast majority of which were built between 1950 and 1990. It has been estimated that over 2,200 of these are under-heated to a severe extent. Although some have benefited from more recent refurbishments, many of these remain in poor condition and are extremely energy inefficient. Based on reported heating consumption, public-sector buildings consume approximately 680 GWh of energy per year and are responsible for over 214,000 tonnes of CO₂ emissions.

This Project is therefore needed to improve the efficiency of these public buildings. This will provide benefits to the country's economy, as well as decreasing the country's energy demand and thereby reduce emissions of air pollutants and greenhouse gases.

Georgia also has both national and international commitments in relation to improving EE, including the ongoing adoption of the EU's 2012 Energy Efficiency Directive (EED) related to energy efficiency. Further, through its Nationally Determined Contribution submitted to the United Nations (UN), Georgia committed to a 15% reduction in greenhouse gas (GHG) emissions compared to 'business as usual' by 2030. This is equal to a reduction in emission intensity per unit of GDP by approximately 34% from 2013 to 2030.

Additionally, national legislation on EE in general is currently being developed and approved, such as the Energy Law, Renewable Energy Law, Renewable Energy Action Plan. The National Energy Efficiency Action Plan (NEEAP) is a checklist of measures that Georgia needs to undertake over the next three years in order to improve its EE levels while satisfying higher energy demand. The policies and investments listed in the NEEAP aim to help Georgia realise energy savings of 14% by 2025. The NEEAP tackles energy waste in five sectors of the Georgian economy, including the public sector and buildings.

Eleven Georgian self-governing cities and municipalities have also submitted their own Sustainable Energy Action Plans (SEAPs) under the "Covenant of Mayors" initiative. These will also guide project development and the selection of buildings.

4. What is the benefit of the Project to local people and the economy?

The installation of EE measures in the selected public buildings will help reduce local air pollution and will also contribute to reduction of greenhouse gases.

The installation of these measures will also boost markets for energy-efficient goods and services in Georgia. The use of these measures in public buildings will help to create awareness and demand for EE measures and projects, which will gradually build a sustainable and local energy service company industry. This will assist in expanding and improving the market for EE measures in residential buildings.

It is intended that a high percentage of employees during the construction phase will be recruited from areas nearby to the selected public buildings, dependent on skills and availability. Although this work is temporary, job opportunities are expected to benefit the local communities. The use of local labour will be maximised where possible.

5. What will be the potential adverse socio-economic impacts of the Project and how will they be mitigated?

5.1 Land and Economic Impacts

No land acquisition or permanent or temporary resettlement of people or economic displacement will be caused by Project activities.

Whilst the thermal insulation is being installed on the exterior of the public buildings, some access could be restricted to entrances of the buildings, affecting both users of the buildings and neighbouring businesses. MDF will ensure that the Environmental and Social Management Plans developed by the design companies include requirements for scaffolding to always allow for one entrance/exit of the building to be accessible, with wheelchair ramps always being available. Supplementary spaces for businesses will be made available if scaffolding obstructs currently used space.

It was also noted that access to parking may be affected due to construction activities. Trucks, equipment, materials and contractor facilities may require this space. MDF must ensure that alternative free parking is available.

If the building does not possess much external space, the Contractor will require some communal space within the public buildings for storage of materials during construction to limit external access issues. However, this is unlikely as most of the buildings assessed were self-contained and possessed storage areas on the grounds of the buildings.

The timing of construction works should also be considered and agreed with representatives of each building. For example, buildings used in academia should ideally be renovated when fewer pupils/students are present (i.e. winter, Easter or summer holidays). If temporary relocation is necessary, Ministry of Education and Science of Georgia (MoESG) will ensure that the following is undertaken:

- Representative (likely the School) will sign an agreement stating that the relocation building and timing has been deliberated and agreed upon together by MoESG and the institution;
- Support will be given to public building staff to find a temporary site (e.g. assistance in identification, moving assistance and other relevant measures if needed).

5.2 Social Interaction and Community Health and Safety

Temporary Workforce

The majority of employment will be through the construction phase, mainly through local contractors. It is intended that a high percentage of employees will be from the local area to the extent possible, dependent on skills. Some employment opportunities may be created if the size of schools selected for reconstruction is increased. However this is dependent on the designs to be developed and on the buildings that will be selected.

Fire Safety of Thermal Insulation

The thermal insulation to be procured by MDF (through contractors) for this Project will be suitably fire-rated by the Supplier. The Design Engineer will also submit a fire safety report to MDF. The fire safety report will include an assessment of the fire safety of the materials used, techniques of installation and overall designs.

Pressure on Social Infrastructure and Services

As detailed energy audits have not yet been carried out, approximate construction and installation periods per building have not yet been developed. However, given the small size of the schools buildings being refurbished and that larger buildings can be renovated in sections at a time, no extended pressure on local infrastructure or services (e.g. medical facilities) is expected.

Water

The Project will demand a relatively low level of water use and will not significantly impact any local water supplies.

Traffic Safety and Logistics

A small amount of increased traffic will be experienced, and access to certain public buildings may be affected during the works. A Traffic Management Plan is to be developed and implemented by MDF. The Traffic Management Plan will also include arrangements to ensure separation of pedestrians from the construction site, without affecting access to the building for users. Emergency Plans will also be developed for each building during the construction phase.

6. What will be the key environmental impacts of the Project and how will they be mitigated?

6.1 Waste

It is expected that a small (but not insignificant) amount of waste will be generated, including replaced insulation material, windows, boilers, drains, air conditioning units and lighting, as well as loose render/plaster. Any waste generated will be stored in designated areas, and disposed of by licensed waste disposal companies. Waste Management Measures will be included in all site-specific Environmental and Social Management Plans (ESMPs) to be developed by design companies and will be mandatory for implementation by civil works contractors.

6.2 Other Materials

Asbestos-containing materials (ACMs) will likely be present in some of the 200 selected buildings. As such, a survey to identify the location of ACMs in the proposed building sites will be undertaken prior to commencement of the Project. Asbestos contained waste management measures will be included in all site-specific ESMPs to be developed by design companies and will be mandatory for implementation by civil works contractors

Some hazardous waste (e.g. polystyrene panels, adhesives, mercury-containing fluorescent lighting tubes) will be generated. These will be disposed of in special barrels through authorised companies and all debris removed from building sites.

6.3 Water Usage and Discharges

Water scarcity is classified as low in Georgia. The quantities of water required for the Project are expected to be insignificant. Nevertheless, where possible water consumption should be minimised and, where appropriate, non-potable water will be used. Wastewater generation will be limited to sanitary wastewater from the contractors, which will be appropriately managed in the site-specific ESMPs.

6.4 Biodiversity

Protected areas: The public buildings included in this Project will not be located in areas protected under national or international law, such as Emerald sites.

Trees: It is possible that certain trees growing close to selected public buildings (particularly older builds) will be protected by national legislation. Therefore, scaffolding erection around these buildings will be carried out sensibly, avoiding trimming or damage to trees where present. Tree cutting permissions will be obtained by the contractor if this is unavoidable.

Bats: It is possible that bats could be present in the attics of the older buildings. If bats are present, a Bat Specialist will be hired to develop and implement a plan so as not to disturb the potentially affected colonies.

6.5 Visual Impacts

The Project will improve the aesthetics of the approximately 200 public buildings to be insulated and, in some cases, structurally improved. In recent builds (constructed during the 1970s-1990s) the insulation will be coated in plaster and painted, improving the building's appearance.

The introduction of EE measures in older buildings, protected under national law, will be conducted sensitively and MDF will ensure that the contractor obtains the permits required from The National Agency for Cultural Heritage Preservation of Georgia (and Tbilisi City Hall, if required) to alter these listed buildings.

6.6 Construction Dust and Noise

Limited air emissions and noise pollution are expected. Some minor dust will be emitted during the installation of the improved thermal insulation on the outside of the buildings, but will be controlled through the ESMPs.

6.7 Construction Traffic

It is expected that the Project activities will affect local roads and traffic in the area as a number of the buildings, particularly in urban areas, may have limited access routes and areas for trucks/vans to park nearby. Furthermore, health facilities and other emergency services may be included in up to the 200 public buildings. Ambulances, police vehicles and other transport used for medical/police emergencies require continual access to these buildings.

Traffic Management Measures will be developed by design companies and included in the site-specific ESMPs. The contractor will ensure clear access at all times for hospitals and police stations, and at least one clear entrance/exit for all other buildings.

6.8 Boiler emissions

When boilers are selected and allocated for certain buildings, MDF will ensure that they are aligned with compulsory EU emissions regulations. The Medium Combustion Plant Directive (MCPD) and directives for smaller boilers will be applicable. When boilers are removed, they will be disposed of in line with national legislation.

7. What will be the impacts on Gender and disability?

The right to equality for both women and people with disabilities is protected in Georgian law, as well as EBRD policy.

Insufficient lighting at building entrances, in car parks and on public walkways leading to buildings is a risk, particularly for women. This Project will ensure that building, car park and street lighting is fully operational at all sites to help prevent gender-based violence and harassment. LED lighting will be implemented as an EE measure which could be used to improve the safety of women and girls.

When structural improvements are implemented within the design, the designs will be developed in a gender-sensitive manner, such as providing adequate toilet and changing facilities for female service users and employees.

This Project will also seek to improve disability inclusion. Measures will include repairing uneven surfaces which may pose a hazard to the visually impaired and wheelchair users, providing or improving wheelchair ramps, and providing accessible toilet facilities.

A Disability Specialist will be engaged to deliver on the national legislation requirements. Focus group discussions and targeted consultations will also be held, ensuring that the voices and opinions of vulnerable groups (including women and those with disabilities) are heard and included at the design stage.

8. What about Stakeholder engagement?

Stakeholder engagement program envisages the consultation meetings with relevant interested parties prior to the commencement of the project as well as during the project implementation. Consultation and engagement activities are required to address current stakeholder suggestions, ideas or concerns.

The following stakeholders have been identified:

- Project Shareholders/Internal Stakeholders (MDF);
- Building Owners/Managers;
- Permitting bodies/Local governmental agencies;
- Communities & businesses if any (members of the public working at or visiting the public buildings);
- Vulnerable groups if any (when necessary/required) that will be identified during consultation meeting with building representatives;
- Building representatives (e.g. facilities managers);
- NGOs;
- Contractors;
- Construction workers;
- Design Engineer/Energy efficiency specialist;
- Supervision company/companies;
- Permitting bodies, local governmental agencies; and
- Lending Organisation.

Public consultation and engagement has not yet been carried out by MDF on this Project. A Stakeholder Engagement Plan (SEP) has been created to direct MDF/PIU consultant in effectively engaging with those affected by this Project, including the following activities:

- MDF environmental and social meetings with Supervision company/companies and contractors;
- Building representative meetings;
- Meeting with users of the affected building;
- Women (where relevant) and disabled persons focus groups;
- Digital media engagement; and
- Non-Governmental Organisation (NGO) meetings.

The SEP will ensure that the requirements and opinions of every PAPs and stakeholders, including disabled persons and other vulnerable groups are understood and included within the design, development and execution of the Project. The SEP also includes information on the MDF Grievance Redress Mechanism, which explains how complaints can be brought to the attention of the company verbally or in writing or by filling in a grievance form.

9. Contacts

Contact details and responsibilities for SEP implementation are as follows:

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