



**Project Title: De-Risking and Scaling-up Investment
in Energy Efficient Building Retrofits**

Brief Description

The project objective is to use an integrated suite of interventions to systematically de-carbonise the existing building stock to realise both greenhouse gas (GHG) emissions reductions and sustainable development benefits. According to Armenia’s 2010 National GHG Inventory in the National Communication to the UNFCCC, almost 28% of primary energy resources are consumed in buildings, mostly in the residential sector, and produce about 20% of GHG emissions. The project will create a favourable market environment and scalable business model for investment in energy efficiency retrofits, leading to sizable energy savings and accompanying GHG emissions reductions (between 4.4-5.2 million tCO₂ over the 20-year lifetime of the investments), green job creation and poverty reduction. It will also catalyse additional private and public sector financing of approximately USD 100 million.

Executing Entity / Implementing Partner: Ministry of Nature Protection of Republic of Armenia

Total resources required (USD)	128,420,000
Total allocated resources	128,420,000
Regular (UNDP-TRAC)	420,000
Other	
- GCF	20,000,000
- Municipality of Yerevan	8,000,000
- EIB	100,000,000
In-kind contributions (USD)	1,400,000
UNDP	1,000,000
Government	400,000

The activities of the project will be structured into four main components (with GCF proposed funding distribution):

- Component 1: Establishment of building sector Measurement, Reporting and Verification (MRV) and knowledge management (\$1m)
- Component 2: Policy de-risking (\$1m)
- Component 3: Financial de-risking (\$4m)
- Component 4: Financial incentives (\$14m)

Component 1 aims to establish robust MRV for the building sector to enable monitoring of energy use in buildings, prioritisation of buildings for energy efficiency retrofits, and quantification and monetisation of the resulting energy savings. Robust MRV is necessary to build the investment case for energy efficiency retrofits.

Output 1.1 MRV systems for the buildings sector in Armenia established

Output 1.2 Knowledge management and MRV Information disseminated

Component 2 will support national, sub-national and local authorities to adopt and implement an enabling policy framework for energy efficiency retrofits. De-risking instruments will directly and indirectly address investment risks for commercial lenders of energy efficiency retrofit finance.

Output 2.1 Public instruments for the promotion of investment in EE selected

Output 2.2 Support provided to on-going legal reform in the field of energy efficiency

Output 2.3 Support provided for the creation of an enabling policy framework for EE retrofits in multi-owner residential buildings: Home Owner Association (HOA) legal status, payment enforcement, professional management, consensus levels

Output 2.4 Support provided to building owners / managers / owner associations / ESCOs on legal matters related to energy efficiency retrofit projects

Output 2.5 Exit strategy implemented

Component 3 will partner EIB, the R2E2 fund, local banks and other relevant national and international financial institutions to provide access to affordable capital for energy efficiency retrofits.

Output 3.1 Technical assistance provided to banks and other financial institutions for market facilitation for individual residences

Output 3.2 Technical assistance provided to banks for HOA market facilitation

Output 3.3 Technical assistance provided to local government to develop EE retrofit projects for publicly-owned buildings

Output 3.4 Access to affordable capital for energy efficiency retrofits provided

Output 3.5 Marketing platform created

Component 4 will provide targeted financial incentives and offer them to building/apartment owners, or the ESCOs serving these clients, to ensure that the most vulnerable households can afford the costs of energy efficiency retrofits.

Output 4.1 Targeted financial incentives provided to vulnerable groups to help address the affordability gap

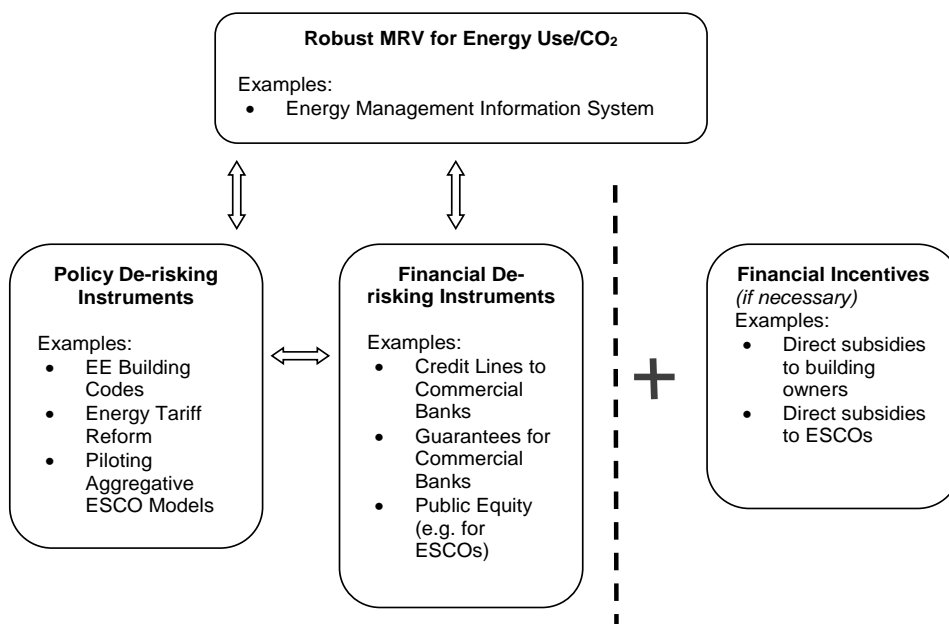


Figure 1. De-risking approach for energy efficiency building retrofits

Table 1. Proposed financial structure

Financing Institution	Financial Instrument	Status of Financing Commitment	Amount (Unit: million USD)	Share (in percentage)
EIB	Senior loan	At due diligence	100	78%
GCF	Grant	To be confirmed	20*	16%
UNDP	Grant	Confirmed	0.42	0.3%
Government	Grant	To be confirmed	8	6%
Total			128.42	

* Excluding UNDP fee, estimated at 10%.

Table 2. Overview of project stakeholders and their proposed engagement in implementation

Stakeholder category	Name	Relevance to Project and Role in Preparation
Government	Ministry of Nature Protection	Ministry of Nature Protection is proposed as the implementing partner for the project. The Ministry will be responsible for the coordination of the project activities in line with objectives.
	Ministry of Urban Development	Will be the recipients of technical assistance to develop and strengthen legislation and secondary legislation associated with energy efficiency buildings and retrofits. They will also be responsible for the design and enforcement of new building codes and standards and coordination and supervision of construction/reconstruction of the residential buildings.
	State Urban Inspectorate under Ministry of Urban Development	Will be the recipients of technical assistance to develop and strengthen legislation and secondary legislation associated with energy efficiency buildings and retrofits. In particular assistance to strengthen the enforcement capabilities and framework of the Inspectorate.
	Ministry of Energy and Natural Resources	Enforcement of the legal base, methodologies and procedures for Energy Certification Scheme (Energy Passport).
	National Institute of Standards	Development of procedures for licensing of independent verifiers in the sphere of energy efficiency materials certification and labelling.
	Municipalities and sub-national entities	This group will be consulted on their training and capacity strengthening needs in the area of land use planning and zoning, particularly regarding the integration of energy efficiency building considerations into local decision-making. Yerevan is the largest city by far, with a population of over 1 million (the population of the country as a whole is close to 3 million) and will be the main project beneficiary
Private sector	Commercial Banks such as: SEF International, ACBA Bank, Ameria, Byblos Bank, Ararat Bank, Ineco Bank.	Commercial Banks will be the recipients of technical assistance to develop financial packages for energy efficiency building retrofits. Banks will be consulted during the project preparation period on the most feasible type of financing mechanism or mechanisms to support energy efficiency building retrofits. Banks will then provide financing for energy efficiency building retrofits under various investment programs.
	ESCOs	Will be the recipients of technical assistance to develop financing packages and develop a pipeline of bankable energy efficiency retrofit investment opportunities.
	Home owners/managers/condominiums	Home and building owners are a critical stakeholder group since they will provide a down payment on energy efficiency building retrofits and will contribute to develop a pipeline of bankable energy efficiency retrofit investment opportunities. A sample of homeowners will be consulted during the project preparation period regarding their demand for different finance packages as well as their demand and experiences with energy efficiency and low-carbon homes.
Other organizations in Armenia	- Builder's Union of Armenia - Union of Architect of Armenia	Proposed organisation of trainings on energy efficiency construction materials and technologies, development of advertising materials, exhibitions, support with publication in media, awareness raising
	Universities	Organization of the training and targeted educational courses
	NGOs	Various NGOs such as Third Nature and Greens Union of Armenia who specialise in energy projects and Altair (Humanitarian Centre) who specialise in improve living standards will be consulted regarding their experiences with awareness-raising activities.

Stakeholder category	Name	Relevance to Project and Role in Preparation
	Armenia Renewable Resources and Energy Efficiency Fund	The fund is responsible for financing a number of renewable energy and energy efficiency projects and promoting the development of the energy efficiency market in Armenia.
International/ Multilateral organizations	European Union	Support for harmonizing legislation with the acquis, including legislation related to European norms and standards (CEN) and the EU Directive on Energy Performance in Buildings (EPBD)
	European Investment Bank (EIB)	Will be consulted on lessons learned to date on existing projects with UNDP with a focus on how finance could be extended to Armenia for on-lending through local commercial banks. EIB will provide important project finance.
	World Bank	Will be consulted on lessons learned to date on existing project 'Armenia Energy Efficiency', raising awareness on energy efficiency and strengthening the institutional and regulatory frameworks for promoting energy efficiency in public procurement process and Energy efficiency investments in public buildings
	USAID/EE Energy	Will be consulted on lessons learned to date on energy efficiency building projects and information and awareness-raising activities. An exchange of data and analytical studies will also be undertaken.
	KfW	Will be consulted on lessons learned to date and information and awareness-raising activities. An exchange of data and analytical studies will also be undertaken

Stakeholder coordination

The primary means of stakeholder coordination will be via the Project Board (Board), which will provide an official, ongoing forum for coordinating the work of various Government agencies and other donors. In addition to work undertaken through the Board, project staff will maintain regular communication with the other agencies regarding their complementary work on energy efficiency building retrofits.

Implementation and institutional arrangements

The project will be implemented following UNDP's National Implementation Modality (NIM), according to the Standard Basic Assistance Agreement between UNDP and the Government of Armenia, and the Country Programme Action Plan (CPAP).

The **Implementing Partner** for this project is the Ministry of Nature Protection (MoNP), the national authorised body for UNFCCC implementation in Armenia and the appointed NDA for the GCF. The Implementing Partner may enter into agreements with other organisations or entities, namely Responsible Parties, to assist in successfully delivering project outcomes. A Responsible Party is defined as an entity that has been selected to act on behalf of the Implementing Partner on the basis of a written agreement or contract to purchase goods or provide services using the project budget.

The **Project Board** (Project Steering Committee) is the group responsible for making, by consensus, management decisions for a project when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. The Project Board will be comprised of the representatives of the Ministry of Nature Protection, Yerevan Municipality, the Ministry of Urban Development, the Ministry of Energy and Natural Resources, UNDP and financing institutions (EIB). Board meetings will be scheduled twice a year, unless an ad hoc meeting is requested in writing by a member of the Board.

The **Project Manager** will run the project on behalf of the Implementing Partner within the constraints laid down by the Board. The Project Manager is responsible for day-to-day management and decision-making for the project.

The Technical Advisory Committee will comprise representatives of various other interested public and private agencies. The Ministry of Energy and Natural Resources, the Ministry of Urban Development, the Ministry of Territorial Administration, the Ministry of Economy, the Ministry of Nature Protection, the R2E2 Fund, the National Institute for Standards of the Republic of Armenia,

and the National University of Architecture and Construction of Armenia will be invited to nominate representatives to the Technical Advisory Committee. This group will meet annually, with periodic consultation as needed throughout the year. The Board will actively seek and take into account the input from the Technical Advisory Committee.

The Municipality of the City of Yerevan, as the major beneficiary of the project, will also act as one of the Responsible Parties of the project.

UNDP will act as the GCF Accredited Entity for this project. The UNDP Country Office in Armenia will be responsible for the management of the grant (GCF and UNDP) and loan (EIB) component, ensuring transparency, appropriate conduct and financial responsibility. The UNDP CO will gradually hand over loan management functions to the Project Implementation Unit (PIU) to be established under Yerevan Municipality. The UNDP Country Office will oversee annual financial audits, and the execution of an independent Mid-Term Review and a Terminal Evaluation. All financial transactions and agreements, including contracts with staff and consultants as well as procurement of goods and services, will follow the rules and regulations of the United Nations.

To ensure smooth start-up of the project, implementation will commence with an inception phase. In this phase, initial consultations between all parties will be conducted in order to consolidate the methodology and detailed work plan. At this point, project activities will be reviewed and if necessary, adjustments will be made to take into account any new developments such as changes in market conditions and policy environment.

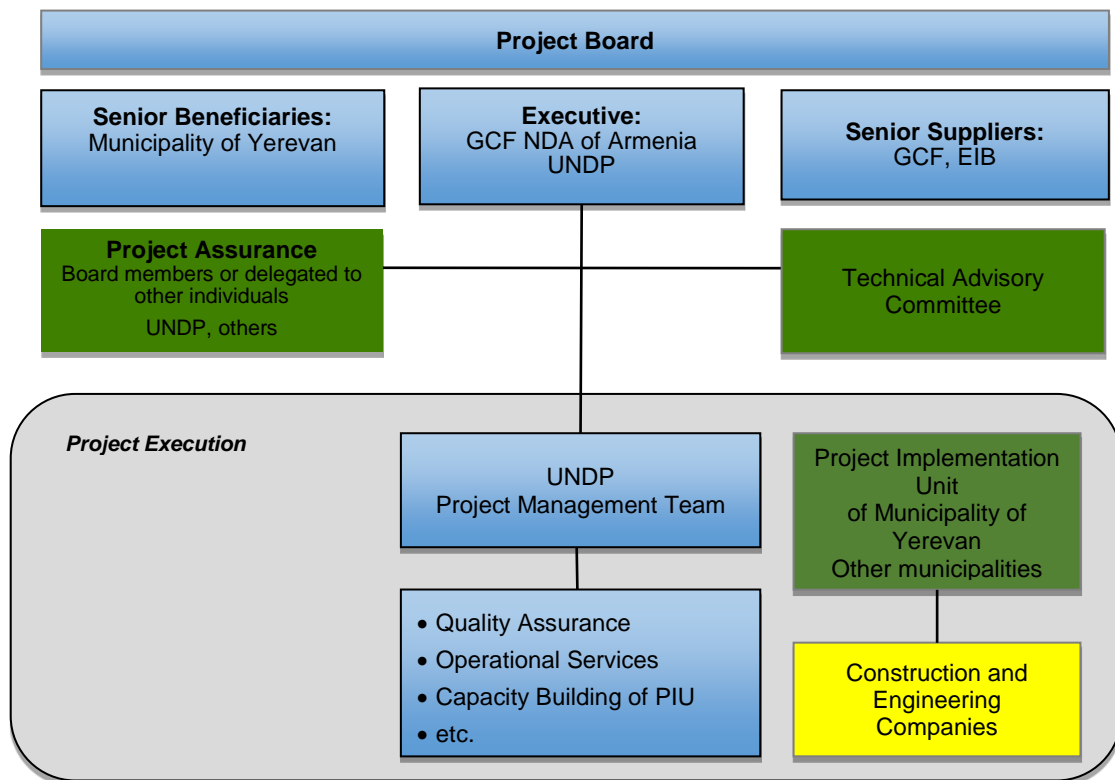


Figure 2. Project Management Structure