

Multi-country Programme for 2019 - Three pager outline

CO-FINANCING OF ENERGY EFFICIENCY PROJECTS IN PUBLIC BUILDINGS UNDER REEP PLUS/ WINDOW 4 IN THE WESTERN BALKANS

Budget	EUR 85 million in total, comprising EUR 25 million investment grants by the EU and EUR 60 million loans by KfW (=30% average grant of the total investment, resulting in a leverage grant: loan of 1:2,4; single investments can vary and go lower (e.g. 20-25%) or higher but only up to max. 50% depending on the exact project scope)
Project promoter	NIPACs of WB6
Implementing body	The implementing body is KfW with the support of the Energy Community Secretariat (EnCS). The action is meant to be part of the REEP PLUS under the so called Window 4 (public sector/ direct lending).
Impact/results	<p><u>Impact:</u> The Western Balkan 6 Countries will have implemented an effective energy efficiency policy regarding public buildings in order to achieve sustainable energy savings and carbon emission reductions laying ground for the convergence of WB6 countries into the EU (against the background of the Environmental chapter of the <i>Acquis Communautaire</i>). This action will result into:</p> <ol style="list-style-type: none"> 1) Significant share of retrofitted buildings in the area of education, health and public administration in line with the energy performance standards set out in the Energy Performance of Buildings Directive 2) Significantly reduced CO2 emissions 3) Significantly reduced energy consumption 4) Extension of the lifetime and increased value of public buildings 5) Improved user satisfaction of learning and working conditions 6) Creation of jobs and stimulation of local value chains
Key activities	<p>KfW will ensure a proper preparation of each targeted public facility (e.g. schools, hospitals, administrative buildings, kindergartens etc.) to be refurbished. The following activities, divided into four parts, will be included in the scope of assistance supported by the EU funding:</p> <ol style="list-style-type: none"> 1. <u>Part 0: Preparatory phase – activities include inter alia:</u> <ul style="list-style-type: none"> - Definition of an accurate energy consumption baseline - Preparation of at least 2-3 variants for building renovation to identify the optimal solution in terms of costs, energy and CO2 savings and payback period - Concept design for the construction activities (energy efficiency measures, structural/sustainability measures, comfort measures) - Standardized Structure and Energy Audits (SEA) by specialized in consultants 2. <u>Part I: Investments– activities include inter alia:</u> <ul style="list-style-type: none"> - Preparation of tender documents, bundling of tender packages, tender evaluation, contracting etc. - Supervision of works, take-over, handling of defects notification period - Post construction audits for impact measurement, verification and reporting 3. <u>Part II: Energy controlling –activities include i.a.:</u> <ul style="list-style-type: none"> - Identification and implementation of a proper energy monitoring system on building level and on aggregated buildings stock level - Set up of analysis focussing (e.g. software tools, manual, monitoring processes) on steadily enhanced operation & maintenance

	<p>4. <u>Part III: Optimization of operations</u> – activities include inter alia:</p> <ul style="list-style-type: none"> - Energy efficiency awareness campaigns and training courses for users - Implementation of incentive schemes and procedures for an improved operation and maintenance of the refurbished facilities. <p><u>Cross-cutting - visibility and communication</u></p>
Key indicators	<p>Key performance indicators:</p> <p><u>For result 1)</u> Expected comprehensively retrofitted public buildings of at least 430.000 square meters in total.</p> <p><u>For result 2)</u> Expected CO2 emissions savings of at least 23.000 t/a after finalization of the action in total;</p> <p><u>For result 3)</u> Energy savings of at least 40% (before/after reconstruction) on average;</p> <p><u>For result 4)</u> Structural investment measures that lead to a (calculated) extension of the building lifetime of 25-30 years on average;</p> <p><u>For result 5)</u> Significant improvements in health-related aspects (e.g. air-quality, hygiene) and education (e.g. learning and working environment) of at least 75% of the participating facilities</p> <p><u>For result 6)</u> At least 15 jobs created per EUR 1 million investment</p>
Link to needs	<p>The Western Balkan countries are characterized by a high energy intensity that is three to four times higher than the average of EU 28 countries. This not only leads to high emissions, but also negatively impacts the economic competitiveness of the countries. The lack of efficient use of energy particularly concerns the building sector: Various estimates by the IEA and others assume the energy savings to be the highest in the public sector and in the buildings stock in general, both around 40 %. Moreover, a considerable share of the public building stock in the Western Balkans was erected after the Second World War. General refurbishment measurements have been largely neglected. Comprehensive refurbishments extend the lifetime of buildings by about 30 years. These comprehensive refurbishment measures do have to go beyond classical “energy efficiency measures” and include interventions in the overall structure and fundamental components of a building. More concretely, needs can be described as follows (non-exhaustive listing):</p> <p>The building stock in the WB6 is old, built with low thermal insulation, poor heating and lighting efficiency. Proper maintenance was neglected over decades. There are no Energy management systems.</p> <ol style="list-style-type: none"> 1. In education facilities learning conditions are poor due to insufficient heating, lighting and ventilation 2. In healthcare facilities treatment conditions are poor due to insufficiently heated/cooled hospitals and poor indoor air quality 3. In other public buildings working conditions are not state of the art, due to insufficient heating, lighting and air conditioning. 4. Monitoring systems and systemic approaches to ensure optimal operations are largely absent (these are necessary for reporting, regulatory requirements, benchmarking, measuring and ensuring energy and monetary savings in the short, medium and long run).
Justification	<p>Given the deficient public building stock it is necessary to go <i>beyond mere energy efficiency</i> measures and to focus on a <u>holistic and sustainable refurbishment</u></p>

	<p><u>program</u> that optimizes energy efficiency. This holistic approach comprises the three parts 1) investments, 2) energy controlling and 3) optimization of operations (see under “Key activities”). The investments include not only (classical) <i>energy efficiency measures</i> (thermal insulation, exchange of window and doors, renewal of heating system etc.) but also <i>structural/sustainability measures</i> (e.g. improvement of gutter and sewage system, structural rehabilitation of the building, reconstruction of the electrical installations etc.) and comfort measures (such as renewal of sanitary rooms incl. facilities for disabled persons, interior painting, elimination of mould etc.).</p> <p>Overall, the approach leads to <u>deeper renovations</u> of public buildings (vs. “quick fixes” such as merely exchange of windows) that extend the lifetime of the buildings and allow energy and CO2 savings for a long-term period.</p> <p>For this type of comprehensive refurbishment <u>technical assistance</u> (TA) is required for the preparatory phase (Structure and Energy Audits) for Part I-III.</p> <p>Neither the necessary structural and comfort measures nor the TA generate revenues as the energy efficiency measures do in terms of saved energy and energy costs. The general focus of investors – private or public – on payback periods often does impede larger investments and makes them reluctant to undertake such comprehensive refurbishments. Investment grants provided by the EU that cover the non- or little- revenue generating investment measures eliminate this stumbling block and thus serve as <u>enabler for large scale energy efficiency</u></p> <p>In sum, the <i>non-revenue</i> generating (larger scope/depth of renovation, required TA) and the <i>non-directly-attributable</i> revenue generating features (energy controlling, optimization of operations) of the holistic approach call for <u>investment grants to enable sustainable, state-of-the-art investments in public facilities with positive monetary and socio-economic effects</u>. Since public funds are scarce for comprehensive, large scale buildings renovations, EU support is needed for the preparation of investments, supervision of works and further proper operations and maintenance of retrofitted public buildings</p> <p>EU funds will be also used to incentivise governments to <u>scale up</u> their investments in public buildings comprehensive renovations.</p>
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Annex: REEP PLUS – actual structure including the proposed 4th sub-window

		Public sector		Private sector	
		Government	Municipality	SME	Residential
Investments	Direct Lending	Window 4 EE in Public Buildings (EEiPB)	proposed by KfW	EBRD	
		Window 3 Renewable Energy		EBRD	
	Indirect Lending	Window 2 Residential and SME		KfW	EBRD
TA		Window 1 ESCO development and policy dialogue	EBRD		