Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 02-Aug-2018 | Report No: PIDISDSA24758

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
Bosnia and Herzegovina	P165405	Additional Financing for the Bosnia and Herzegovina Energy Efficiency Project	P143580
Parent Project Name	**Region**	**Estimated Appraisal Date**	**Estimated Board Date**
Energy Efficiency Project	EUROPE AND CENTRAL ASIA	31-Jul-2018	03-Oct-2018
Practice Area (Lead)	**Financing Instrument**	**Borrower(s)**	**Implementing Agency**
Energy & Extractives	Investment Project Financing	Bosnia and Herzegovina	FBH Ministry of Physical Planning, RS Ministry of Spatial Planning, Civil Engineering and Ecology

Proposed Development Objective(s) Parent

The project development objective is to demonstrate the benefits of energy efficiency improvements in public sector buildings and support the development of scalable energy efficiency financing models.

Proposed Development Objective(s) Additional Financing

The project development objective is to improve energy efficiency in public buildings, and to support the development and implementation of scalable energy efficiency financing models

Components

Energy Efficiency Investments in Public Facilities
Support for the Development of Scalable Financing Mechanisms and Capacity Building
Project Management

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	41.81
Total Financing	41.81
of which IBRD/IDA	32.26
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	32.26

Non-World Bank Group Financing

Counterpart Funding	9.55
Borrower	9.55

Environmental Assessment Category

B-Partial Assessment

Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

1. **Status of the Bosnia and Herzegovina Energy Efficiency Project (BEEP)**. BEEP was approved by the IDA Board of Executive Directors on March 13, 2014, and became effective in the Republika Srpska (RS) on May 27, 2015, and in the Federation of Bosnia and Herzegovina (FBiH) on December 14, 2015. As of August 1, 2018, 82 percent of the IDA credits have been disbursed and the remaining funds are expected to be fully disbursed before the closing date of the original credit on December 31, 2019. The overall progress towards achievement of the Project Development Objective (PDO) and implementation progress of the parent project are currently rated *Moderately Satisfactory*. A summary of the progress and results achieved under each project component is provided below.

2. **Component 1: Energy Efficiency (EE) Investments in Public Facilities.** This component supports EE investments in selected public buildings and related technical consultancy services (e.g. energy audits, designs, building energy performance certificates, supervision, technical and social monitoring and evaluation). Implementation progress under Component 1 is rated to be *Satisfactory*. To date, EE improvements in 61 public buildings (29 buildings in the RS and 32 buildings in the FBiH) have been completed. In addition, preparation and implementation of EE investments in 18 additional buildings (three buildings in the RS and 15 buildings in the FBiH) are currently ongoing and expected to be completed in 2018/early 2019. These investments supported under BEEP have helped to demonstrate strong energy savings and other benefits associated with EE improvements including the following:

- *High energy savings potential and environmental co-benefits:* on average, normative energy consumption in retrofitted buildings was reduced between 53 and 60 percent, resulting in total lifetime energy savings of more than 512,000 MWh and a reduction of lifetime CO_2 emissions by 189,000 tons of CO_2 equivalents; in addition, heating systems in around 15 retrofitted buildings were switched from coal or fuel oil to locally

produced pellets or wood chips;

- *Economic and financial viability of EE investments:* using adjusted baselines, the average payback period of investments was 8-9 years, resulting in significant energy cost savings in retrofitted public buildings; in addition, all civil works and the majority of equipment installed was provided by local companies;
- *Social co-benefits:* more than 700,000 children, students, patients, teachers, doctors, nurses and other staff are estimated to have benefitted from improved learning, recovery and working conditions in retrofitted buildings; comfort levels in retrofitted buildings were significantly improved, as demonstrated by the increase in end-users who were 'very satisfied' with indoor temperature levels after the EE improvements (34 percentage point increase in the FBiH and 55 percentage point increase in the RS) and with lighting conditions (23 percentage point increase in both entities).

3. In line with the PDO, EE investments supported under Component 1 were also used to develop and pilot alternative financing and implementation models, which helped to leverage funds, demonstrate strong demand and commitment from local Governments for EE improvements and test scalable EE repayment schemes. Specific models piloted under the parent project included the following: (i) EE investment costs in cantonal buildings (totaling 24 buildings and accounting for more than 70 percent of EE investments completed in the FBiH) are being repaid by cantonal Governments to the FBiH Ministry of Finance over a 10-year repayment period, which is reflective of the EE investment payback periods and related energy cost savings achieved in these buildings; and (ii) in about 56 percent of all retrofitted buildings, co-financing was provided by other development partners, local Governments and/or Value Added Tax (VAT) refunds on BEEP expenses. In addition, a revolving model is being piloted in the RS, where part of the EE investment costs will be financed through the RS Environmental Protection and EE Fund ('RS EE Fund') and repaid by the municipality on the basis of achieved cost savings.

4. **Component 2: Support for the Development of Scalable Financing Mechanisms and Capacity Building**. This component provides technical assistance aimed at developing sustainable EE financing mechanisms, strengthening of implementation capacity and enhancing of public awareness on EE. Implementation progress under Component 2 is rated to be *Satisfactory* taking into account the contribution of the project in supporting the gradual transitioning towards scalable EE financing models (through pilots and by supporting the development of a long-term vision for sustainable EE financing), in building market capacity (through on-the-job training and targeted capacity building activities) and in enhancing EE awareness of various stakeholders, including local communities, project beneficiaries and the general public. Specific results achieved include the following:

- *Development of scalable EE financing models:* in addition to the pilots implemented as part of Component 1, an ongoing Issues and Options Study in each entity helped to identify key issues and barriers to improve EE in the public buildings sector, and proposed different options to scale-up and sustain EE financing in the medium- to long-term. Specific options evaluated focus on: (i) a public Energy Service Company (ESCO) model proposed to be operated by the RS EE Fund as well as complementary ESCO financing instruments (e.g. forfeiting, guarantees and loans) aimed at developing the local ESCO market and leveraging private sector financing; and (ii) a revolving EE Fund or public ESCO model proposed to be operated by the FBiH Environmental Protection Fund, and focusing on operationalizing financing instruments aimed at leveraging public and commercial financing through Public Private Partnerships (PPPs) and Energy Service Agreements. The ongoing studies have helped to inform the design of the proposed Additional Financing and to develop a long-term vision to sustain and scale-up EE financing in the public buildings sector.
- *Capacity building to strengthen the EE market and energy management*: as one of the first EE projects in

Bosnia and Herzegovina (BiH), BEEP was critical in building the EE capacity of local energy service providers (e.g. energy auditors, design companies, construction firms) through on-the-job training and implementation experience, as demonstrated through a steady increase in the number of responsive bidders and improved quality of technical documentation. In addition, the project supported capacity building for energy management in public buildings by providing training to more than 124 local and building-level energy managers, and by developing Operation and Maintenance (O&M) manuals and guidelines to optimize energy savings in retrofitted buildings.

- *Communication and awareness raising activities*: both entities have conducted targeted communication and awareness raising activities on EE, *inter alia* including specific awareness campaigns for children and students in retrofitted education buildings, regional and local EE conferences and social media campaigns. Based on social surveys conducted for a sample set of retrofitted buildings, a number of schools started introducing education on EE as part of their curriculum and end-user awareness on EE in retrofitted buildings has increased from 66 to 72 percent in the FBiH and from 35 to nearly 60 percent in the RS.

5. **Component 3: Project Management.** The two project implementing entities – FBiH Ministry of Physical Planning and RS Ministry of Spatial Planning, Civil Engineering and Ecology (jointly referred to as Ministries of Physical Planning) – have established Project Implementation Units (PIUs) with adequate staffing and expertise.

6. **Scaling-up EE improvements in the public buildings sector.** The main rationale for the proposed Additional Financing (AF) is to build on the strong results achieved under BEEP and scale-up EE improvements in the public buildings sector.

C. Proposed Development Objective(s)

Original PDO

7. The project development objective is to demonstrate the benefits of energy efficiency improvements in public sector buildings and support the development of scalable energy efficiency financing models.

Current PDO

8. The PDO is to improve energy efficiency in public sector buildings, and to support the development and implementation of scalable energy efficiency financing models.

Key Results

9. The results framework will be restructured to mirror the changes in PDO, reflect results and progress achieved under the parent project, and strengthen gender-related aspects. PDO-level results indicators for the proposed AF include:

- *Projected lifetime energy savings (updated)*: the indicator remains unchanged but annual and end target values are updated on the basis of results achieved under BEEP and projections for the proposed AF;
- *Development and implementation of revolving financing models (new)*: this new indicator aims to track progress in *transitioning* from piloting of alternative financing approaches towards implementation of revolving financing models that capture and reinvest cantonal/ municipal repayments in the FBiH and achieved energy cost savings in the RS, respectively.

D. Project Description

10. The project components and activities proposed to be supported under the AF build on the scope and results achieved under the parent project as described below and further detailed in updated Project Operations Manuals (OMs).

11. **COMPONENT 1: EE Investments in Public Facilities.** This component will continue supporting EE improvements in selected public buildings, including related civil works, goods and services.

12. The process for selecting public buildings and implementing EE investments will remain similar as under BEEP. The main change relates to the development and implementation of revolving financing models for EE investments supported under the project. This represents an important shift from piloting of alternative financing arrangements under BEEP towards the systematic use of scalable EE financing models under the AF, which will enable funds to revolve, leverage AF resources, demonstrate the concept of using energy cost savings for partial repayment of investment costs, and support a gradual transition towards more commercial financing options. In addition, simple ESCO models will be piloted for a few EE investments supported under the proposed AF to help develop the local ESCO market.

13. **Revolving financing model in the FBiH**. As per arrangements under BEEP, participating cantons and municipalities would continue to repay the costs of EE improvements in municipal/ cantonal buildings to the FBiH Ministry of Finance over a 10-year period. As part of the revolving financing model, the semi-annual repayments from local Governments ('project reflows') for EE investments supported under both BEEP and its AF will be reinvested in the form of joint co-financing with loan proceeds to scale-up EE improvements in cantonal/ municipal buildings. The project reflows will be complemented by recurrent VAT refunds on eligible project expenses. The preparation and implementation of EE investments supported under the AF, including those jointly co-financed from other sources, would continue to be managed through the PIU under the FBiH Ministry of Physical Planning. For the duration of the project, the revolving financing model in the FBiH is estimated to generate an additional €6.53 million in available co-financing to BEEP AF resources. Along with the loan proceeds allocated to Component 1 (€14.34) for FBiH, this is estimated to enable financing of EE retrofits in about 62 public buildings.

14. **Revolving financing model in the RS**. As part of the revolving financing model in the RS, 50 percent of the estimated annual energy cost savings[1] in retrofitted buildings under the AF would be captured for 10-15 years or until 50 percent of the investment costs supported under BEEP AF are recovered, whichever comes first. The captured energy cost savings would be reinvested to scale-up EE improvements in public buildings ('project reflows') in two different ways, depending on budget responsibilities for the retrofitted buildings. The project reflows from retrofitted buildings under entity budget responsibility will be complemented by recurrent VAT refunds on eligible project expenses, and be implemented through the PIU under the RS Ministry of Spatial Planning. For the duration of the project, the revolving financing model in the RS is estimated to generate an additional €1.44 million available for joint co-financing with BEEP AF resources. Along with loan proceeds allocated to Component 1 (€9.33) for RS, this is estimated to enable financing of EE retrofits in about 32 public buildings. The project reflows from retrofitted buildings under municipal or independent budget responsibility will be transferred to the RS EE Fund in the form of annual repayments for EE investments supported under the

[1] Using the energy cost savings estimates provided in detailed energy audits.

BEEP AF. The RS EE Fund will finance additional EE investments in public buildings using a similar revolving financing model, supported through captured energy cost savings and the Fund's own resources. While these EE investments implemented by the RS EE Fund are not considered part of the project, the revolving financing model supported under Component 1 will help to build experience and capacity to implement and replicate the model.

15. **Piloting of performance-based contracting models**. A performance-based contracting model for EE investments will be piloted with focus on 'entity buildings' (e.g. federal buildings in FBiH and primary schools in RS). As part of the model, a share of the payment to selected contractors would be based on performance, e.g. the achievement of a minimum energy performance class of the retrofitted building (e.g. class B), as verified through the building certificate process. This would help to support the development of the local ESCO market by testing and demonstrating a simple performance-based contracting model for EE.

16. **COMPONENT 2: Support for the Development of Scalable Financing Mechanisms and Capacity Building.** This component would build on activities implemented under BEEP and provide technical assistance aimed at: (i) supporting the development and implementation of scalable EE financing mechanisms; (ii) enhancing local market capacity and improving EE enabling environment; and (iii) strengthening public awareness on EE.

17. **COMPONENT 3: Project Management.** This component will continue providing support for effective implementation and management of the AF, including PIU staff; project-related operating costs and PIU trainings; and annual audits of project accounts.

E. Implementation

Institutional and Implementation Arrangements

18. The implementation arrangements under the proposed AF remain largely the same as under the parent project, i.e. in each entity, the Project Steering Committee (PSC) would continue to provide strategic guidance and oversight to the project and select the buildings, the Ministries of Physical Planning remain the designated implementing entities for the project and the PIUs under the Ministries continue to be responsible for day-to-day implementation and management of the project, including safeguards. The project implementation arrangements, including roles and responsibilities of all key stakeholders, are further detailed in the updated OMs.

19. The introduction of revolving financing models and related arrangements does not result in any changes in terms of environmental and social safeguards management for the project, and the Environmental Management Framework (EMF) and Environmental Management Plans (EMPs) will continue to be applied and implemented for all buildings retrofitted under BEEP and its AF.

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F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

BEEP and the proposed AF are implemented at various sites located throughout Bosnia and Herzegovina, selected based on call for proposals and clear eligibility and selection processes. Since the precise locations were not known at the time of appraisal of the parent project and the proposed AF, respectively, an EMF

including a template Environmental Management Plan EMP were developed under the parent project and will continue to be applied under the proposed AF. Once eligible public buildings are selected and project locations known, site-specific EMPs are adapted.

G. Environmental and Social Safeguards Specialists on the Team

Satoshi Ishihara, Social Safeguards Specialist
Esma Kreso Beslagic, Environmental Safeguards Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	Component 1 of the proposed AF will continue financing small-scale construction activities to improve EE in selected public buildings in line with the scope of the parent project, i.e. using the same building selection process, regional coverage, project boundaries and types of works eligible for financing. Under the parent project, a framework document (EMF) with a template EMP was prepared and disclosed with public consultations in both entities in October 2013. The EMF provides guidance on mitigating the related environmental impacts, including management of dust and noise, safety of the construction site, management of construction and other wastes. Based on the EMF, each of the construction sites was subject to a site-specific EMP that was integrated into the contractual and bidding documents for civil works and supervision. This approach, including the EMF and template EMP developed for the parent project, will also be applied to the AF. The scope of the project is designed to include only existing buildings and targets renovation activities that help to enhance EE. This scope does not allow for any activities that would be classified as a Category A to be eligible for financing, and as such

		the EMF does not provide additional screening of such activities.
Performance Standards for Private Sector Activities OP/BP 4.03	No	N/A
Natural Habitats OP/BP 4.04	No	All works are conducted on existing public buildings and will not involve any activities within natural habitats, wildlife reserves, protected areas or critical natural habitats and its buffer zones. Therefore, the project will not have any adverse impact on environmentally and socially sensitive areas.
Forests OP/BP 4.36	No	All works are conducted on existing public buildings located in urbanized areas and this policy does not apply.
Pest Management OP 4.09	No	The project will not procure or use any pesticides.
Physical Cultural Resources OP/BP 4.11	No	There is a potential for works on some parts of the building that may be under forms of protection as cultural heritage. In such cases, the framework document (EMF) has included provisions that the works will receive adequate guidance from competent entity or state level authorities on monument protection. The policy is not triggered as there are no specific sites of protected cultural heritage identified as of appraisal.
Indigenous Peoples OP/BP 4.10	No	OP 4.10 is not triggered as project activities do not impact indigenous peoples.
Involuntary Resettlement OP/BP 4.12	No	As the project envisages retrofitting of already existing public buildings within their existing footprint, no land acquisition, resettlement, or any other adverse social impacts (such as loss of assets, loss of income due to retrofitting works) are expected. OP 4.12 on Involuntary Resettlement is not triggered.
Safety of Dams OP/BP 4.37	No	The project will not finance dams, nor the rehabilitation or any activities related to dam operation and safety. It will not depend on the operation of an existing dam either.
Projects on International Waterways OP/BP 7.50	No	The project finances civil works on existing public buildings and does not involve international waterways.
Projects in Disputed Areas OP/BP 7.60	No	The project is not implemented within territorially disputed areas.

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:
Overall, EE investments will have positive social impacts by helping reduce health hazards within retrofitted building by improving indoor air conditions, increasing comfort levels in terms of lighting and temperature, and helping to create green jobs. Like under the previous phase of the project, social safeguards on involuntary resettlement and land acquisition will not be triggered as all EE retrofits will take place within the existing footprints of the buildings and all works will be conducted on publicly owned land. The PIUs will ensure that no acquisition of private land is needed for any of the shortlisted buildings to be retrofitted, using the screening criteria included in the EMF for the project.

The anticipated environmental impacts of EE investments (civil works) in selected buildings will be temporary, relatively minor and are easily mitigated by the application of measures identified in the EMF and EMP. These impacts and associated mitigation provisions included in the EMF and template EMP mostly relate to potential dust and noise generation, management of construction and other wastes, ensuring minimal disruptions to building users and neighbors and potential chance findings in older buildings as well as management of potentially hazardous materials (e.g. asbestos insulation or mercury-containing light bulbs). No safeguard category A type of subprojects will be included in the project.

The proposed AF will build on the experience and practices of the parent project and application of the EMF and site-specific EMPs, with no changes to the scope of works, project boundaries, geographic coverage and therefore the environmental due diligence. The introduction of revolving financing models and related arrangements does not result in any changes in terms of environmental and social safeguard management for the project, and the EMF will continue to be applied and implemented for all buildings retrofitted under the AF with the use of IBRD loan proceeds.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:
The long-term effects of the project are expected to be positive, as it will help to reduce energy and fuel consumption and decrease associated emissions (e.g. CO2, PM, NOx, SOx, etc.).

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.
N/A

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.
The project will continue to be implemented through entity-level PIUs under the Ministries of Physical Planning and overseen by a PSC in each entity, composed of relevant Ministries. Both PIUs have experience and capacity to plan and implement safeguard-related measures given the ongoing implementation of the parent project, and have assigned safeguards responsibilities to designated staff. In addition, the EMPs are part of the design and subsequently bidding documents for each selected building, and the supervising engineers are specifically tasked to monitor compliance with the EMPs. The PIUs' performance on safeguards in terms of screening, assessing and implementing the EMF/EMP for retrofitted buildings has been satisfactory throughout implementation of the parent project. Adequate training can and will be organized by the World Bank environmental specialist in Sarajevo, as needed by the PIUs.

The criteria for the selection of buildings (e.g. excluding buildings where ownership issues are unclear) or the bidding and contractual documentation (e.g. obliging the contractor to consider all possible alternatives for civil works avoiding resettlement and expropriation) will ensure to avoid resettlement and land acquisition issues. The PIUs monitor and ensure that proposals clarify and confirm that no private land is needed for structures to be retrofitted or constructed for any of the sub-projects.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The framework document with template EMP has been disclosed on September 19, 2013 in the RS and on October 24, 2013 in theFBiH with public consultations held on October 8, 2013 in RS and October 31, 2013 in FBiH. The public consultations were announced on October 24, 2013 (FBiH) and September 20, 2013 (RS), respectively, in the following daily papers: Oslobodjenje and Nezavisne novine. The consultations were public and open to all interested parties, as per the invitations in the daily papers and on the websites. Specific and targeted invitations to the consultation meetings were sent to specialized institutions and organizations (including academia and NGOs). The site-specific EMPs are and will continue to be disclosed at the project location prior to start of works.

B. Disclosure Requirements (N.B. The sections below appear only if corresponding safeguard policy is triggered)

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
05-Nov-2013	06-Nov-2013	

"In country" Disclosure

Bosnia and Herzegovina
06-Nov-2013

Comments

If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting) (N.B. The sections below appear only if corresponding safeguard policy is triggered)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

CONTACT POINT

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APPROVAL

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