



Appraisal Environmental and Social Review Summary

Appraisal Stage

(ESRS Appraisal Stage)

Date Prepared/Updated: 11/18/2019 | Report No: ESRSA00321



BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
North Macedonia	EUROPE AND CENTRAL ASIA	P149990	
Project Name	North Macedonia Public Sector Energy Efficiency Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Energy & Extractives	Investment Project Financing	11/18/2019	1/31/2020
Borrower(s)	Implementing Agency(ies)		
North Macedonia	Ministry of Finance		

Proposed Development Objective(s)

20. The Project Development Objectives are to: (i) reduce energy consumption in the public sector; and (ii) support the development and implementation of a sustainable financing mechanism for energy efficiency in the public sector.

Financing (in USD Million)	Amount
Total Project Cost	27.70

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]

The project will support the renovation of public buildings (central and municipal) through the provision of an IBRD loan through a project implementation unit under the Ministry of Finance. In parallel, TA will be provided to help design and operationalize an Energy Efficiency Fund (EE Fund) to provide financing on a more sustainable basis. The project will also provide the initial capital of €5 million for the proposed EE Fund.

D. Environmental and Social Overview

D.1. Project location(s) and salient characteristics relevant to the ES assessment [geographic, environmental, social]



Macedonia is a land-locked country in the center of Balkans, characterized by mountainous terrains intersected by valleys and hills. Currently, the power sector heavily depends on inefficient and outdated coal-fired generation operated by the state-owned power generation company ELEM. About 40% of electricity supply comes from a 40-year old lignite-fired PP Bitola. Recently, renewable energy generation has grown from 4 to 7.4%. Conventional hydropower generation supplies up to 20% of electricity demand depending on the quite volatile hydrological conditions. Gas-fired combined heat and power plants have increased their market share from 2.4. to 7.4%; import meets the rest of power demand, and vary depending on hydrological conditions Fossil fuels account for more than 80% of country's energy consumption, and an increasing amount of this is imported, including all liquid fuel and natural gas, which makes the sector the top contributor to the country's total greenhouse gas (GHG) emissions. Without a natural gas network, heating of buildings provided by electricity (25%), biomass/wood (64%) and district heating (9%) is highly inefficient. The high consumption of unmanaged and unregulated firewood is also unsustainable and can lead to forest degradation, giving rise to adverse environmental, economic and health impacts. The project will be implemented country-wide, with investments targeting list of about 40 buildings of 2,441 central government and municipal buildings, will be selected in demand basis, which have been identified for retrofitting under the National Program for Energy Efficiency in Public Buildings (NPEEPB), and are mainly located in urban and peri-urban areas of the country. Anticipated adverse environmental impacts will be associated with the implementation of Component 1 activities, namely, civil works needed to improve energy efficiency of the buildings, such as replacement of windows, doors, wall and roof insulation; fixing the heating systems including boilers, piping, radiators, valves, meters and promoting switch of fuel from lignite and oil to biomass, and where feasible, solar, wind; optimization of cooling and ventilation, maximizing natural lighting; and introduction of improved operation and maintenance practices. The nature of the sub-projects and other activities has not changed from the identification phase thus the social risk level is the same. Given that the project activities will finance energy efficiency retrofitting type of measures with the first component the project will not have land acquisition impacts. The project could also be used to in addition to EE measures improve physical accessibility of the buildings where feasible. In terms of the works, for these types of investment there is lot of competition in the country and thus all of the labor force will come from the project site localities. Given the small size of the contracts expected under the project, only local based , small or medium sized construction firms would be contracted under the project, and thus the risks related to labor influx is limited. There would be no foreseen issues with labor influx any other social risk related with the workers influx. Second component foresees technical assistance to the Ministry of Economy and other relevant central government institutions to establish EE fund in order to secure the sustainability of the program. The TA will envisage feasibility studies, overview of the institutional arrangements of the EE funds in other countries comparable to North Macedonia, study tours, budget and financial analyses etc. The TA component might also provide support to local governments for the EE related initiatives such as how to assess and calculate savings from the EE measures.

D. 2. Borrower's Institutional Capacity

The project will be implemented by the Project Implementation Unit (PIU) established by the MoF for the currently ongoing Municipal Services Improvement Project 1&2 (MSIP 1&2). As such, the PIU has gained good knowledge of, and considerable experience in ensuring the environmental and social compliance of the World Bank-funded projects. There is a full-time designated Environmental and Social specialist (E&S Specialist) in the PIU who ensures environmental compliance of the project/sub-projects, including day-to-day supervision, guidance to sub-project applicants, review of documents and providing inputs to the PIU Director. Since the E&S Specialist is experienced primarily with the requirements of the World Bank safeguard policies and has not yet had any exposure to the new Environmental and Social Framework (ESF), customized training (on line e-course on the ESF) is required. With this capacity building measure, and some additional technical staff, the capacity of the PIU is found satisfactory for the proposed new project. A Coordination Committee consisting of representatives of related ministries and agencies will



be established to approve the final selection of sub-projects to be financed. The members of the Committee will apply the selection/screening criteria to be determined by the project ESMF. As such, the members of the Committee shall be aware of World Bank’s ESSs and requirements applied to the project activities, as the quality of the environmental and social due diligence of sub-projects will factor the decision-making and approval process. The satisfactory capacity applies also for the social issue as the project will be implemented by the on going Municipal Services Improvement Project. The PIU has well established protocol and procedures for environmental and social due diligence and monitoring for the Municipal Project which has much wider scope of investments, in addition to EE measures in local government buildings.

II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Moderate

Environmental Risk Rating

Moderate

The environmental risk is assessed as Moderate because the anticipated risks and impacts associated with the implementation of civil works on sub-project level are localized, site-specific with low probability of serious adverse effects to human health and/or environment, limited in time, predictable and small in magnitude. At the same time, generation of some hazardous waste, considerable volumes of demolition debris and excess material is expected, and will require proper handling to avoid negative impacts on the health and safety of labor, communities and the natural environment. The overall environmental footprint of the project will be positive. The capacity of the client to manage the environmental risks is satisfactory.

Social Risk Rating

Low

There is no change on the risk level from the project concept phase. The nature of investments and the activities are the same. The work activities are limited in the nature and scope to energy efficiency measures in buildings. There will be no land acquisition impacts with the activities financed by the project. It is expected that small and medium construction companies that operate regionally within Northern Macedonia will be hired. This the labor influx risk is low. The PIU has experienced E&S staff and engineers which are cognizant and apply The Occupational Safety and Health Standards and safety at work standards with the contractors for the MSIP project. Given the low nature of risks and experienced staff at the implementing agency the Social Risk Rating proposed for the operation is Low.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

Component 1 of the project will support civil works, including typical building-level energy efficiency measures such as replacement of windows, walls, insulation of walls and roofs, improving or installing heating systems, introducing switch of fuel from lignite/oil to biomass, street lighting and district heating, or use of alternative energy sources, cooling, ventilation, optimization of natural lighting, etc. All buildings under the NPEEPB are eligible for financing, however, the applications will be demand-driven, with specific sites to be selected in the course of the project implementation. The ESMF will provide for a set of selection/screening criteria to be applied for the identification of sub-project sites. In order to address anticipated environmental impacts, including: nuisance to neighboring



communities and facilities, generation of construction and domestic wastes, need to handle excess materials, noise and dust from construction machinery and works, disposal of hazardous waste (e.g. asbestos) which may be generated during the building repair, the client has developed an Environmental and Social Management Framework (ESMF). The ESMF identifies typical environmental risks likely to occur during the project implementation, provides for measures to ensure protection of cultural heritage buildings if those are proposed for retrofitting, specifies legislative and regulatory framework, considers procedures and institutional responsibilities and provides an outline for site-specific Environmental and Social Management Plans (ESMPs) to be developed by the client for each specific site/sub-project. The ESMPs shall be developed in accordance and with reference to the World Bank General and Energy Conservation specific EHS Guidelines. The ESMF also addresses environmental and social aspects of TA to be provided under Component 1 (consultancy services to conduct energy audit, prepare detailed design and bidding documents, monitoring, ensuring the quality and integrity of site-specific ESMPs), and under Component 2 supporting the establishment of the Energy Efficiency Fund (EEF). As the TA under Component 2 will support the studies on the design and operationalization of the Energy Efficiency Fund, the ESMF provides for specific requirements regarding the environmental and social aspects to be considered in the framework of those studies, which shall be further incorporated into the respective Terms of References (TORs). Specifically on the social side, the issues of (a) labor procedures in the construction sites place, (b) building awareness and a GRM hotline for gender based violence and abuse in the workplace for female workers (both at the construction site and in the buildings under the project) will be emphasized. There will be a hotline for reporting Gender based harassment displayed at the construction sites and in areas like bathrooms. There will also be awareness raising discussions with both men and women regarding appropriate work place behavior. The ESMF has been prepared and will be disclosed by the client and cleared by the Bank prior to the project Appraisal. Following the identification of specific facilities to be retrofitted in the course of the implementation, the client will prepare site-specific ESMPs which will address specific environmental and social impacts and determine adequate mitigation measures. The ESMPs will have to be disclosed by the client prior to the commencement of civil works. With the anticipated large number of sub-projects (list of overall stock of public buildings 2,441), the first ten ESMPs will require prior review and approval of the Bank, with all following ESMPs being subject to post-review on a selective basis. This approach is taken because all anticipated civil works will be similar in nature, with potential risks to be ranging from moderate to low, limited environmental footprint during the retrofitting and positive environmental impacts during the operation. In addition, the ESMF provides for a pre-approved template for ESMPs which will facilitate their preparation. The social section of the ESMF addresses the organization and the protocols for the project related Grievance Redress Mechanism as well as how the workers related grievance will be established and will function. The activities to be financed will not cause any impacts that is scope of the Land Acquisition, Restrictions on Land Use and Involuntary Resettlement Standard- ESS5. The Labor and Working Conditions- ESS2 will apply to the direct Project Employees, workers hired by third parties (contractor and sub-contractor employees) and to the energy efficiency agency, to be established with the support of the project. The EE fund will be public entity but at the moment it is not known, what will be the format. However, the employees will be hired by the public entity and will fall either under the civil servants category or employees in the public entities (such as funds or public companies). As part of the Community and Health Safety Standard the ESMF provides for a framework and site specific ESMP will define potential disturbance to the nearby communities as well as improve the physical accessibility of the selected buildings for retrofitting.

Public Disclosure

ESS10 Stakeholder Engagement and Information Disclosure



draft Stakeholder Engagement Plan has been prepared and the draft acceptable to the Bank team will be ready by appraisal. The Stakeholder Plan identifies the stakeholders, and proposes engagement during all phases (preparation and implementation). Vulnerable groups are poorest communities living in the cities and they will benefit as public institutions such as health clinics will mostly be selected as a central government buildings to be retrofitted. User will be informed about the activities at site. There will be two dimensions of the stakeholder engagement. One within program level. There are mostly central government institutions, municipalities and respective industry. They will be engaged through a meetings format of engagement. This is the first dimension. The second dimension is within a sub-project level. On a local government and social infrastructure building user level. This is in a community level and it includes, depending of the selected social infrastructure buildings - parents, local government employees, users of the services of the relevant institutions. While on the first dimension stakeholders will be engaged and contribute on program designs and implementation issues the stakeholders on the local level with the SEP are proposed to be engaged and contribute in a sub-project level preparation, implementation (investments) and provide feedback on completion. The form of the engagement will be through social network and user committees. As mentioned in the section on ESS1, there will be special focus on raising awareness and providing a GRM hotline for female workers in the construction site and all workers in the building in general.

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

The project will engage direct employees and these will be full time consultants working for the PIU. In addition to the direct employees there will be contractors who will engage staff and most probably sub-contractors engaged by the contractor for whom the standards will apply. These will be workers hired from third parties category under standard. Given that the second component will support the government to establish government related public EE fund, and the aim is to establish the fund during the life of the project the scope of the standard will apply also for the EE funds. Most probably the companies engaged will be medium firms and small sub-contractors from the localities or national sub-regions. There is sufficient offer and skill for the types of investments needed for the project within the country. The labor related laws in Macedonia are up to ILO standards and the ESS2 requirement. The social and environmental staff in the PIU will oversee application of the standard and ensure the compliance with the standard and with the World Bank General and Energy Conservation specific EHS Guidelines. The only GAP is lack of the grievance mechanism for the employees apart from the courts. The project will introduce labor, contractor and sub-contractor workers related grievance mechanism as a part of the labor management procedures in place which is prepared during the preparation.

ESS3 Resource Efficiency and Pollution Prevention and Management

The project by its nature is expected to significantly improve the use of energy resources and generate significant benefits through the introduction of resource-efficient practices. The design of public buildings eligible for retrofitting will incorporate energy saving features, will aim at maximizing the use of natural lighting and can also suggest resource-efficient measures such as reduction of water loss, paper recycling practices, etc. The establishment of the Energy Efficiency Fund shall help to make the achievements of the project more sustainable. Environmental damage due to improper management of construction waste, domestic waste and excess material may cause expansion of



project's environmental footprint. These risks and required types of mitigation measures will be determined by respective ESMPs. The implementing agency shall commit to require from the selected works contractors to develop detailed Waste Management Plans (WMPs) prior to commencement of the civil works, and enforce their implementation by contractors. WMPs will carry specific information on estimated volumes of various types of waste, including hazardous waste such as asbestos, arrangements for their temporary storage and final placement, and clearances/permits for waste disposal obtained from relevant national authorities. Specific arrangements for re-use or recycling of particular types of waste as well as agreement on hand-over to secondary users will be included where feasible.

ESS4 Community Health and Safety

Adverse impacts on the health and safety of surrounding communities/building tenants and staff may occur during retrofitting/renovation of buildings. Risks include generation of waste, noise, dust, transportation of construction materials, and possibility of unauthorized entrance to renovation sites. There are also risks related to natural disasters such as floods, landslides and earthquakes which should be taken into account when selecting the sub-project sites and preparing the design for building renovation. The types of communities and project-affected persons (PAPs), the types and magnitude of potential negative impacts as well as adequate measures to mitigate the anticipated impacts, including the disaster related ones, are discussed in the ESMF and will be further detailed in site-specific ESMPs. ESMPs will further explain how during the sub-project implementation the institutions which buildings are being prepared will provide the services. Those ESMPs, once prepared, will be duly disclosed and discussed with communities likely to be affected, to raise awareness of the project activities, educate people on potential and precautionary measures to be taken by contractors, including site safety and access restrictions. The project will be used also to assess and if feasible to improve accessibility, for disabled, of the selected facilities. There will be a separate hotline for GB harassment complaints and awareness raising sessions for both men and women at the project sites.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The EE measures does not foresee any land impact. All project locations are in existing buildings.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This standard is not relevant because the project will support works in the already existing buildings within urban and peri-urban areas, thus, no impact on biodiversity and living natural resources is envisaged.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

This ESS is not relevant because no indigenous people are known to reside in Macedonia

ESS8 Cultural Heritage

Since renovation and retrofitting will be conducted for the public buildings which have been in use for some time, encountering any chance finds in the specific sub-project areas is highly unlikely. However, in order to ensure that no



cultural heritage objects, both tangible and intangible are affected by the project activities, the ESMF provides for an overview of respective legislation and major cultural heritage objects country-wide. The ESMF also sets specific criteria to screen sub-projects for potential cultural heritage risks, and provide general requirements to contractors with respect to protection of any cultural heritage objects during the implementation of respective contracts. Site-specific ESMPs will consider the potential impacts in detail. If any cultural heritage object, or intangible cultural heritage, are identified during the preparation of site-specific ESMPs, respective provisions will be incorporated which would call for the civil works to be conducted in such a way as to avoid any potential adverse impacts on historical monuments and other tangible and intangible cultural heritage.

ESS9 Financial Intermediaries

This ESS is not relevant because no financial intermediaries are party to the project implementation modality.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways No

OP 7.60 Projects in Disputed Areas No

III. BORROWER’S ENVIRONMENTAL AND SOCIAL COMMITMENT PLAN (ESCP)

DELIVERABLES against MEASURES AND ACTIONs IDENTIFIED	TIMELINE
ESS 1 Assessment and Management of Environmental and Social Risks and Impacts	
Sub-project specific ESMPs will be prepared throughout the Project implementation	06/2024
ESS 10 Stakeholder Engagement and Information Disclosure	
draft will be disclosed and consulted during the first week of November. SEP will be updated and implemented throughout the project imeplmentation	11/2019
ESS 2 Labor and Working Conditions	
LMP will be prepared and updated on sub-project case by case. Implementation is foreseen throughout the project implementation	11/2019
ESS 3 Resource Efficiency and Pollution Prevention and Management	
Sub-project specific ESMPs will be prepared throughout the Project implementation	06/2024
ESS 4 Community Health and Safety	
Sub-project specific ESMPs will be prepared throughout the Project implementation	06/2024

Public Disclosure



ESS 5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	
ESS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources	
ESS 7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	
ESS 8 Cultural Heritage	
Sub-project specific ESMPs will be prepared throughout the Project implementation	06/2024
ESS 9 Financial Intermediaries	

B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts

Is this project being prepared for use of Borrower Framework? No

Areas where “Use of Borrower Framework” is being considered:

Given the weak capacity of the national environmental authorities to handle project related environmental and social aspects, and considering existing deficiencies in the legislation framework related to the integration of social aspects into the environmental due diligence, the Borrower’s framework will not be used for the project as a whole, nor for any of its parts.

IV. CONTACT POINTS

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Borrower/Client/Recipient

Borrower: North Macedonia

Implementing Agency(ies)

Implementing Agency: Ministry of Finance

V. FOR MORE INFORMATION CONTACT



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VI. APPROVAL

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