Concept Environmental and Social Review Summary
Concept Stage
(ESRS Concept Stage)

Date Prepared/Updated: 03/17/2020 | Report No: ESRSC01148
BASIC INFORMATION

A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
<th>Project ID</th>
<th>Parent Project ID (if any)</th>
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<tbody>
<tr>
<td>Moldova</td>
<td>EUROPE AND CENTRAL ASIA</td>
<td>P172668</td>
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Project Name: Second District Heating Efficiency Improvement Project

Practice Area (Lead): Energy & Extractives

Financing Instrument: Investment Project Financing

Estimated Appraisal Date: 4/13/2020

Estimated Board Date: 6/26/2020

Borrower(s): Ministry of Finance

Implementing Agency(ies): Termoelectrica, Moldova Energy Projects Implementation Unit

Proposed Development Objective(s)

The Development Objective of the Project is to increase the efficiency of the District Heating system in Chisinau.

Financing (in USD Million)

<table>
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<tr>
<th>Amount</th>
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<tbody>
<tr>
<td>Total Project Cost</td>
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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 finance: (i) modernization of production units nos. 2 and 3 at CHP Source-1 and installation of gas engines, including electrical connections, to increase and optimize the efficiency of heat and electricity production by Termoelectrica (TE); and (ii) energy efficiency investments in public and residential buildings that benefited of installation of individual heat substations (IHS) under the ongoing District Heating Efficiency Improvement Project (DHEIP/P132443) and TE's own investments, such as modernization of in-house distribution piping, installation of domestic hot water piping, switch from vertical to horizontal in-house network layout. The project will finance also project management and supporting technical assistance.
D. Environmental and Social Overview

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

Moldova is vulnerable to changes in external demand and climate shocks due to its small size, open economy, and reliance on agriculture. It is also at risk because of high external debt and a legacy of political instability. Emigration of the working-age population and an annual population decline of around 1½ percent add to the country’s economic, fiscal, and social fragility. Political uncertainty and vested interests undermine the reform agenda and the investment process. It is also at risk because of high external debt and a legacy of political instability. Emigration of the working-age population and an annual population decline of around 1½ percent add to the country’s economic, fiscal, and social fragility.

Project area covers Chisinau. Chisinau is the capital and largest city of the Republic of Moldova. It is the main industrial and commercial center, located in the middle of the country, on the river Bac, a tributary of Dniester river. The city population is of 532,513, while the population of the Municipality of Chișinău (which includes the city itself and other nearby communities) is about 662,836. The city lies in central Moldova and is surrounded by a relatively hilly landscape with very fertile soils. The geology of the city is composed by limestone, sand and clay layers, with a series of hydrogeological horizons, which make it favorable for various geological processes such as landslides and ravine erosion. The city has many green spaces, including several relatively large parks, - the biggest one is in the Botanica district, along the three lakes, which reaches the outskirts of the city center.

The project may include heating services to over 7,000 buildings, including more than 200,000 apartments. The enhanced project interventions may also deliver to the national grid about 20% of the country’s total electricity consumption. The Termoelectrica (TE), the main supply agency, remains the main source of power production and providing heat energy to the entire city. TE also operates heat-only boiler (HOB) plants HOB South, HOB West, and 19 units located in the suburbs. Providing reliable, efficient, and environmentally friendly heating services will have a larger impact on the most vulnerable households in the city since they are often dependent on inadequate or expensive sources of heating (such as coal and firewood stoves) during cold months. For example, the elderly persons/families depend on persons, old age parents who left behind by children who migrated abroad, young families with more children, migrant families in rented apartments will benefit from improved heating supply. The Project would be minimizing negative health impact caused by inefficient and dirty heating devices and indoor and outdoor air pollution. The Project will benefit women, who work or stay at home more often than men, and children and other people who use facilities including kindergartens, schools and other educational institutions, and medical institutions.

From social risk perspective, household vulnerabilities will be further assessed through the environment and social assessment by the client during preparation of the project prior to appraisal. In identifying opportunities to target the project to vulnerable people so as to achieve an inclusive development outcome, the social assessment will consider incomes and wellbeing as well as other drivers of vulnerability such as gender differentials and disabilities etc. Issues during implementation such as labor standards and community health and safety will also be addressed by the environment social assessment.

D. 2. Borrower’s Institutional Capacity

Ministry of Economy and Infrastructure (MoEI) will oversee project implementation on behalf of the GoM. MoEI’s role will be to ensure that the project is implemented in an efficient manner, consistent with the project objectives and agreements. The main implementing agency is Termoelectrica which will be closely involved in all stages of project design and implementation: procurement design, preparation of bidding documents (especially technical specifications), evaluation of bids and selection of contractors, engineering design, construction, installation, testing, commissioning, and quality control. Termoelectrica is certified under both ISO 14001 (Environmental Management)
and ISO 18001 (Operational Health and Safety Management System) and has in its structure three subdivisions responsible for the issues related to environmental safeguards (Chemical Service, in charge of all environmental issues; Safety and Occupational Hazards division; and Technical Supervision division, which is responsible for ensuring all civil works financed by the company are done in compliance with the design documents and existing norms and standards). The daily project implementation duties will be delegated by the MoEI to its project implementation unit (MEPIU), established under the Government’s Decree No 1276 of December 21, 2000, as an autonomous legal entity, responsible for the day-to-day management of IFI-funded projects. MEPIU will take on the reporting functions on behalf of the Government and will carry out the fiduciary responsibilities (disbursement, financial management, procurement, and monitoring & evaluation) under the Project in compliance with the requirements of the Environmental and Social Standards of the World Bank, to be outlined in the Financing Agreement and Project Operational Manual. MEPIU will also manage flow of funds on behalf of the MoEI for the purposes of the project. The unit is staffed with highly qualified and experienced professionals, both in technical, as well as environment and social aspects and will ensure project implementation in accordance with project ESF documents. Although MoEI, as well as MEPIU and Termoelectrica have good experience in successfully implementing safeguards issues within several World Bank projects (Energy II; District Heating; and Competitiveness Enhancement I and II Projects), their safeguards performance last years had been always rated satisfactory, - they do not have experience in preparing and implementing projects under the Banks’ new ESF, - in particular all specified institutions are not familiar with the requirements of WB ESSs with regard to labor and working conditions, labor safety issues, and, community health and safety. It was agreed and the ESF documents will specify the project will support necessary capacity building in these areas.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Environmental Risk Rating

The project environmental impacts and risks are moderate. The proposed project activities (replacement of old and installation of new energy equipment and energy conservation and efficiency measures in the selected public and residential buildings) will have moderate adverse environmental impacts and at the same time will provide significant environmental benefits (reductions in local pollution such as dust and sulfur dioxide emissions; improving livelihoods by securing heat and hot water supply; etc.), as well as will contribute to Greenhouse Gases Emissions (GHGs) reduction. The adverse environmental risks and impacts are related to the following: generation of dust, noise and vibration; solid wastes, including hazardous wastes and asbestos; disposal and replacement of obsolete equipment and installation of new one; traffic disruption; workers’ exposure to occupational risks (e.g. welding operations); some CO2 emission due to installation of new gas turbines; etc. These risks and impacts will be mainly minor, short-lived, and primarily limited to the project sites (except for movement of equipment and materials to/from the construction sites), and they can be addressed with good engineering and construction practices as well as by preparing and implementing adequate mitigation measures and applying best housekeeping practices.

Social Risk Rating

The reconstruction and upgrading of energy infrastructures under component 1 and 2 such as installation of gas engines, including electrical connections, replacement of boiler heating units, installation of IHSs and rehabilitation of internal heat distribution network in the public and residential buildings take place in existing premises and its vicinity
belong to the TE. No additional or private land acquisition envisaged, and all the civil works confined to the existing lands of the TE. No activities will be funded under the project that may cause economic or physical displacement. Overall the improved heating and electricity supply to the city of Chisinau and sub-urban population expected to have positive social outcomes for health, education and better quality of life for elderly persons who are more often affected by poor and interrupted heat supply. Broader social risks and impacts will be identified through the environment and social assessment (ESIA) prior to Appraisal. Attention will focus on access restrictions; temporary traffic disturbances; workforce composition; occupational health and safety for workers; cultural heritage provisions; implications for vulnerable groups. No labor influx or large number of outside laborers for construction works is expected. ES documents to be prepared for this project include site specific ESIA and ESMP for Component 1 and ESMF for Component 2 activities, Labor Management Procedure (LMP), and Stakeholder Engagement Plan (SEP) will take into account coordination and consultation with project affected people, workers of ME and other interested stakeholders according to ESS 2, and ESS10. The project level Grievance Redress mechanism (GRM) will be established and operationalized throughout the project life, as part of a stakeholder engagement plan. Based on the above, the social risk is considered to be moderate.

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:**

The proposed subcomponent 1 “Optimization of Heat and Electricity Generation” will support replacement of old and installation of new energy equipment (turbines; boilers; gas engines; power transformers and power facility/switch gears) as well as minor civil works for rehabilitation of the existing premises or small-scale construction of facilities (for installing the new gas engines at HOB West and CHP Source-3 sites) and may generate a series of moderate risks and impacts such as: GHG emissions reduction due to installation of more energy-efficient equipment; soil and air pollution; generation of noise and construction wastes, including asbestos-containing materials (ACM); Occupational and Health Safety risks; etc. No demolition or large remodeling of existing facilities is envisioned.

The energy conservation and efficiency activities proposed under Component 2 (construction of Individual Heating Stations (IHSs); insulation of external walls, rooftops; replacement of selected windows and doors; etc.) will have minor environmental impacts, providing at the same time environmental benefits (reductions in local pollution with dust (PM10 and PM2.5) and sulfur dioxide); improving livelihoods by securing heat and water supply; etc.). Their potential adverse impacts will be associated with small-scale civil works and related to the following: dust, noise, disposal of non-hazardous wastes and of asbestos containing material; traffic disruption, worker safety (e.g. welding operations) etc.). It is also expected that these energy efficiency and conservation activities will provide GHGs emission reduction, - based on international experience, their implementation may reduce heat consumption down by 20 to 40 percent.

To address specified adverse environmental impacts and risks, the Borrower will conduct an Environmental and Social Impact Assessment and prepare a site specific Environmental and Social Management Plan for Component 1, and, an Environmental and Social Management Framework for Component 2. The unified ESIA&ESMP and ESMF report will include the requirements of the World Bank’s ESSs applied to the proposed project, along with the description of the policies, legal, and administrative framework regarding environmental management and the central heating sector in Moldova. The document will include also the following other aspects: (a) baseline analysis (for the Chisinau city as well as for concrete project sites proposed under Component 1); (b) project alternatives with
a focus of proposed alternatives for Component 1 activities; (c) site specific potential environmental impacts and necessary activities targeted at mitigating them for Component 1, along with the potential risks impacts and well known generic mitigation measures, to be used for preparing ESMP Checklists, for Component 2; (d) site specific ESMP for Component 1 and the description of structure of the ESMP Checklist to be applied in the case of energy conservation and efficiency of public buildings for Component 2; (e) monitoring plan for ESMP implementation for Component 1 and description and requirements for monitoring plan under Component 2; (f) concrete ESMPs implementing arrangements for Component 1, as well as analysis of Termoelectrica company as regards the capacity for carrying on E&S requirements, and proposed implementing arrangements for Component 2. Furthermore, the document will specify needed capacity building for all involved parties and first for MEPIU and Termoelectrica, with a focus on labor safety and working conditions, and community health and safety. Lastly, the ESIA&ESMP section of the document will include the results of Termoelectrica express audit, based on the current environmental performances of the company.

The ESMP provisions will form part of the design and bidding documents for the project and will be included in the contracts for the proposed activities. The Contractors will be required to include the cost of ESMP requirements in their financial bids and to comply with them during project implementation. No labor influx impacts are anticipated given the project size and civil works involve mainly locally hired workforce and the project will not involve any primary supply workers. Local laws and practices regulating labor and working conditions will be assessed during the preparation stage and mitigation measures will be considered based on the findings. There is the potential for some disturbance to the public (pedestrian and vehicle) during the construction period, which may need to be mitigated and all such social risks and impacts will be identified during ESIA&ESMF preparation. The site specific ESIA and ESMPs will include an assessment of temporary traffic disturbances; workforce composition; occupational health and safety for workers; implications for vulnerable groups. Secondary data will also be used to ensure the project complies with the Bank Directive on Addressing Risks and Impacts on Disadvantaged or Vulnerable Individuals or Groups, if any. Methods for primary data gathering if necessary, during implementation will also be defined by the ESIA&ESMF document and site specific ESIA, as relevant. ESIA will also assess and identify social groups vulnerable to and/or excluded from affordable heating services, and identify opportunities to make affordable heating services more accessible to such people, by considering incomes and wellbeing as well as other drivers of vulnerability such as gender differentials and disabilities etc.

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

Although Moldova has an established Environment permit and review framework, the limited experience of the implementing agencies in implementing and managing social risks in a manner which would achieve good international industry practice may pose significant challenge. Therefore, neither the project as a whole, nor its individual components will use Borrower framework for environmental and social management.
distribution network operators will be regarded as technical stakeholders to the project. The list of key stakeholders and their areas of interest will be analyzed and assessed as part of preparing the Stakeholder Engagement Plan. There are no specific vulnerable and disadvantaged groups in the areas covered by the project except the elderly person who may reside in the public housings that to be supported by improved heating systems. The E/SIA will identify and assess the relevance and inclusion of vulnerable and disadvantaged groups, if any, in the stakeholder consultation process and engagement plan.

PlanSEP was developed for the recent Power Sector Development Project supported by the Bank. Based on that document and based on this report, and further field analysis, a SEP will be drafted for the present project, and disclosed and discussed with stakeholders prior to appraisal. The above key stakeholders will be engaged and consulted during project preparation by means of interviews, public meetings and questionnaires. Stakeholder feedback will be considered in the project design and preparation. The GRM will respond to complaints throughout the project lifecycle and be devised to promptly respond any project grievances. These may be construction-related complaints, such as temporary restrictions to pedestrian and vehicle traffic etc. The GRM to be designed prior to appraisal will define ways in which users can submit their grievances, which may include submissions in person, by phone, text message, mail, email or via a web site; will include a log where grievances are registered in writing and maintained as a database, publicly advertised procedures, setting out the length of time users can expect to wait for acknowledgement, response and resolution of their grievances, transparency about the grievance procedure, governing structure and decision makers; and an appeals process (including the national judiciary) to which unsatisfied grievances may be referred when resolution of grievance has not been achieved. All ES documents, including the SEP, will be disclosed locally and through the external website at the website of the Bank before appraisal, and the draft SEP will be disclosed earlier in the project preparation process.

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

This ESS is relevant to the project. Based on available information, the project is expected to involve a limited number of direct and contracted workers. The exact numbers and source of the workforce will be confirmed during project due diligence activities. LMP and GRM will be developed as part of the Environmental and Social Management Plan (ESMP) and adherence to these documents will be mandated through incorporation into the ESCP. These procedures will be in place and operating before the engagement of the first workers. LMP will be specific in excluding child labor and forced labor. The OHS-related impacts and mitigation measures also will be incorporated into the project ESMPs as relevant. Furthermore, the project ESIA&ESMP document will set up the procedure for identification, removal, storage, transportation and hazardous materials, along with the requirements for protection and training of operating workers on site and notification of risks for any community members who might be exposed to such risks. As during the operation stage, heat and noise exposure and related injuries could affect operations workers, the ESMPs will contain adequate measure to ensure their safety. The construction contractor(s) will be also required to put in place and operate GRM for their personnel.

ESS3 Resource Efficiency and Pollution Prevention and Management
The ESS3 is relevant to the project. Project activities will contribute to improved city’s heating infrastructure and assets, strengthen market linkages and enhance Termoelectrica institutional capacity which would contribute to better resource efficiency. The ESIA&ESMP document will include sections on pollution prevention and management, - with a focus on those issues which might arise while conducting replacement of energy equipment and civil works for facilities’ construction and rehabilitation. Assessment of risks associated with civil works and impacts and proposed mitigation measures related to relevant requirements of ESS3, including raw materials, water use, air pollution, hazardous materials, and hazardous waste will be clearly specified in the project ESMP as relevant. Following the measures recommended in ESIA&ESMP, and detailed in site-specific ESMPs, the contractors will avoid or minimize the release of pollutants like asbestos, lubricants, paints, etc. Considering the project will support replacement of old and installation of new energy equipment and gas turbines (under Component 1) and energy conservation and efficiency measures in the selected public and residential buildings, (under Component 2), it might provide some reduction of GHGs emissions. In this regard, under the assessment of the Climate Change benefits, the task team will do a preliminary analysis, trying to estimate the potential net gain in terms of GHGs emission reduction.

ESS4 Community Health and Safety

ESS4 is relevant to the project. To address environmental risks and impacts that might affect community health and safety, the ESIA will include assessment of traffic safety during construction works; livelihood of excessive noise and dust; need to impose access restrictions and make communities aware of planned/ongoing works. Since the project’s civil works will be undertaken within the city of Chisinau, maintaining the health and safety of local population and nearby communities throughout the construction/rehabilitation phase is critical. The movement of heavy goods vehicles can lead to accidents. Energy conservation and efficiency activities in public buildings and apartment blocks can also disrupt economic and social activities through dust emission, noise, increased generation of solid waste, etc. Potential threats to people and communities may be posed by uncovered or non-barricaded or not signposted excavated sites, trenches, open holes, open electric cables, etc. All mitigation measures required for ensuring health and safety of communities residing in and around sites of the project intervention will be included into component-specific ESMPs and made mandatory for adherence by works contractors.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

This ESS is not relevant to the project. The project activities under component 1 will take place in lands belonging to ME and the Government. Rehabilitation of the district heating transmission structures under component 2 of public and residential buildings are to be screened to exclude impacts related ESS 5. No activities will be funded under the project that may cause economic or physical displacement and subprojects /investments that cause such impacts will be excluded through screening criteria/ procedures provided in the ESMF.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This ESS is not relevant to the project, - all proposed activities will be implemented within the existing Termoelectrica premises as well as in public and residential buildings and there will be no impacts to the biodiversity.
ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
This standard is not relevant, because no indigenous people are known to reside in these areas, nor will the project be sited on any traditional customary land. Thus, this ESS is not relevant.

ESS8 Cultural Heritage
This ESS is not relevant, but as a precautionary measure, chance find procedure will be included in the unified ESIA and ESMF report and site specific ESMPs as relevant.

ESS9 Financial Intermediaries
This project will not involve any FIs.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways
No

OP 7.60 Projects in Disputed Areas
No

III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

A. Is a common approach being considered?
No

Financing Partners
No. Only the ESF of the WBG will be applied.

B. Proposed Measures, Actions and Timing (Borrower’s commitments)

Actions to be completed prior to Bank Board Approval:
1. Prepare, disclose and discuss with stakeholders unified report which includes site specific Environment and Social Impact Assessment report and Environmental and Social Management Plan for Component 1 and ESMF for Component 2, acceptable to the Bank, that responds to the requirements of relevant issues covered in the Environment and Social Standards.
2. Draft, disclose and discuss with stakeholders ESCP and SEP, including GRM, prior to Appraisal.
3. Prepare project LMP.

Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):
- Finalize SEP, including GRM, and implement it through project life;
- Implement specific ESMPs for activities under Component 1;
• Prepare and implement site specific ESMP Checklists for Component 2 (once the public and residential building for energy efficiency and conservation measures are selected);
• Maintain through the project implementation Environmental and Social Specialists in the MEPIU;
• Implement project LMP; require contractor(s) to prepare and implement own LMP and GRM for contractor’s personnel;

C. Timing
Tentative target date for preparing the Appraisal Stage ESRS 13-Apr-2020

IV. CONTACT POINTS

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Borrower/Client/Recipient
Borrower: Ministry of Finance

Implementing Agency(ies)
Implementing Agency: Termoelectrica
Implementing Agency: Moldova Energy Projects Implementation Unit

V. FOR MORE INFORMATION CONTACT

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VI. APPROVAL

Task Team Leader(s): Sandu Ghidirim, Fabrice Karl Bertholet

Practice Manager (ENR/Social) Gulana Enar Hajiyeva Recommended on 14-Mar-2020 at 20:34:53 EDT
Safeguards Advisor ESSA Nina Chee (SAESSA) Cleared on 17-Mar-2020 at 13:44:29 EDT