

**DOCUMENT OF THE EUROPEAN BANK  
FOR RECONSTRUCTION AND DEVELOPMENT**

Approved by the Board of Directors on 20 November 2024<sup>1</sup>

**MOLDOVA**

**GRCF2 W2 E2- TERMoeLECTRICA: CHISINAU  
DISTRICT HEATING PROJECT**

*[Redacted in line with the EBRD's Access to Information Policy]*

*[Information considered confidential has been removed from this document in accordance with the EBRD's Access to Information Policy (AIP). Such removed information is considered confidential because it falls under one of the provisions of Section III, paragraph 2 of the AIP]*

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<sup>1</sup> As per section 1.4.8 of EBRD's Directive on Access to Information (2019), the Bank shall disclose Board reports for State Sector Projects within 30 calendar days of approval of the relevant Project by the Board of Directors. Confidential information has been removed from the Board report.

For the avoidance of any doubt, the information set out here was accurate as at the date of preparation of this document, prior to consideration and approval of the project.

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**ABBREVIATIONS / CURRENCY CONVERSIONS**

ABC	Anti-Corruption and Bribery controls
ACMs	Asbestos-containing materials
ANRE	National Agency for Energy Regulation
BCF	Blended Concessional Finance
CapEx	Capital Expenditures
CDP	Corporate Development Programme
CGAP	Corporate Governance Action Plan
CHP	Combined Heat and Power
City	City of Chisinau
CO <sub>2</sub>	Carbon dioxide
Company	Termoelectrica JSC
DH	District Heating
DHW	Domestic Hot Water
DSCR	Debt service coverage ratio
E&S	Environmental and Social
E5P	Eastern Europe Energy Efficiency and Environment Partnership
EBITDA	Earnings before interest, tax, depreciation and amortisation
EHS	Environment health and safety
EIB	European Investment Bank
EIRR	Economic Internal Rate of Return
ESAP	Environmental and Social Action Plan
ESDD	Environmental and Social Due Diligence
ESMS	Environmental & Social Management System
ESP	Environmental and Social Policy
ETI	Expected Transition Impact
EU	European Union
EU NIP	European Union Neighbourhood Investment Platform
EUR	Euro
FOPIP	Financial and Operational Performance Improvement Programme
GBVH	Gender Based Violence and Harassment
GCAP	Green City Action Plan
GDP	Gross Domestic Product
GET	Green Economy Transition
GHG	Greenhouse Gas
GJ	Gigajoule (unit of heat)
GrCF	Green Cities Framework
GrCF2 W2 E2	Green Cities Framework 2 Window II Extension 2
HR	Human Resources
IHS	Individual Heating Substations
IMF	International Monetary Fund
IRR	Internal Rate of Return
kWhe	Kilowatt-hour electric
LM	Lender's Monitor
MDL	Moldovan Leu
MoE	Ministry of Energy
MoF	Ministry of Finance
MW	Megawatt – unit of power
MWhth	Megawatt hour thermal – unit of thermal capacity
NECP	National Energy and Climate Action Plan
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational Health and Safety
PIS	Project Implementation Support
PIU	Project Implementation Unit
PPE	Property, plant and equipment
PP&R	EBRD's Procurement Policies and Rules
PR2	Performance Requirement 2
PS	Procurement Support
RAROC	Risk-Adjusted Return On Capital
REEF	Financing Programme for the Energy Efficiency Fund in Moldova's Residential Sector
SDGs	Sustainable Development Goals
SSF	EBRD Shareholder Special Fund
TC	Technical Cooperation
TCRS	Technical Cooperation Request System
TI	Transition Impact
WB	World Bank

**CURRENCY CONVERSIONS**

<b>EUR /MDL</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>1Q 2024</b>
Period average	20.93	19.90	19.64	19.27
As of period end	20.09	20.42	19.36	19.03

## **PRESIDENT'S RECOMMENDATION**

This recommendation and the attached Report concerning an operation in favour of the Republic of Moldova (the “Borrower”) are submitted for consideration by the Board of Directors.

The facility will consist of a sovereign loan to the Borrower of up to EUR 143.5 million, in favour of Termoelectrica JSC, the largest district heating supplier in Chisinau. The Bank’s loan will be provided in three tranches and will be complemented by investment grants, managed by the Bank, of up to EUR 24.5 million from the European Union Neighbourhood Investment Platform (“EU NIP”) and up to EUR 15.0 million from the Eastern Europe Energy Efficiency and Environment Partnership (“E5P”). The European Investment Bank (“EIB”) is also expected to provide a parallel sovereign loan of up to EUR 143.5 million.

The operation will enable to address legacy infrastructure issues, reduce fuel consumption and promote the system’s decarbonisation. It will enhance District Heating (“DH”) operational and energy efficiency through improved system control and introduce an apartment level consumption-based billing to DH consumers (the “Project”). This will result in enhanced energy security and significant savings of carbon dioxide (“CO<sub>2</sub>”) emissions. The Project will contribute to Moldova’s decarbonisation efforts in line with the Paris Agreement and to the achievement of Sustainable Development Goals (“SDGs”).

The Project’s expected transition impact is to be derived from the Green quality as it will enable energy savings, reduce fossil-fuel consumption in the district heating network and result in a decrease in net CO<sub>2</sub> emissions of over 40 ktonnes per annum. The Project is a follow-on investment under the Chisinau Green City Action Plan (“GCAP”) and will contribute towards the implementation of its actions on the district heating energy efficiency programme. The Project will also contribute to the Well-governed quality by developing a tailored Corporate Development Programme aimed at fostering Termoelectrica’s corporate governance management and support its modernisation. The Project is 100 per cent GET. It is also Gender Additional by supporting the Company’s inclusive policies and practices through the revisions of its Human Resources (“HR”) policies to promote women’s employment within the Company.

Pre-signing Technical Cooperation (“TC”) support for the preparation of this Project was financed by Sweden, post-signing TCs to support the Project implementation, including the Lender’s Monitor (“LM”) and Corporate Development Programme (“CDP”), are expected to be financed by international donors and the EBRD Shareholder Special Fund (the “SSF”).

I am satisfied that the operation is consistent with the Bank’s Municipal and Environmental Infrastructure Sector Strategy, Country Strategy for Moldova, Green Economy Transition (“GET”) Approach 2021-2025, the Bank’s Strategy for the Promotion of Gender Equality and with the Agreement Establishing the Bank.

I recommend that the Board approve the proposed loan substantially on the terms of the attached Report.

**Odile Renaud-Basso**

## BOARD DECISION SHEET

MOLDOVA – GrCF2 W2 E2-Termoelectrica: Chisinau District Heating – DTM 54427 Framework: REGIONAL – Green Cities 2 -Window 2 – Extension 2 - DTM 50440	
<b>Transaction / Board Decision</b>	Board approval <sup>2</sup> is sought for a sovereign loan of up to EUR 143.5 million in favour of the Borrower to finance the district heating improvements in Chisinau (the “Loan”). The loan proceeds will be on-lent to Termoelectrica JSC, the largest DH producer in Moldova, serving the city of Chisinau. The Loan will be provided in three tranches [REDACTED]. The Project is a follow-on investment under the Chisinau GCAP under the Green Cities Framework 2 -Window II Extension 2 (“GrCF2 W2 E2”).
<b>Client</b>	<b>Borrower:</b> Republic of Moldova, represented by the Ministry of Finance (“MoF”). <b>The Company:</b> Termoelectrica JSC, the main producer of thermal and electrical energy in Chisinau, a joint stock company, wholly-owned by the Moldovan Government via the Public Property Agency. It delivers nearly 620 thousand MWhe of electricity annually, and 1.5 million MWhth of heat energy.
<b>Main Elements of the Proposal</b>	<u>Transition impact:</u> <b>Green.</b> The installation of individual heating sub-stations (“IHS”) and horizontal heating networks in the buildings as part of the Project will facilitate the introduction of apartment level consumption-based billing [REDUCTED] and reinstatement of centralized domestic hot water (“DHW”) supply [REDACTED]. This will result in increased energy security due to reduced demand for imported natural gas, as well as significant energy savings and associated CO <sub>2</sub> emissions reductions. The Project will address key challenges in the urban energy sector and will contribute towards the implementation of district heating energy efficiency programme, an action under the Chisinau GCAP. <b>Well-governed.</b> The proposed Project aims to develop a tailored CDP to foster the Company’s corporate governance, as well as to assess sector reform capacity gaps in the DH sector in Moldova, in compliance with the Energy Community and European Union (“EU”) legislation and scale up the consumption-based billing and metering through the necessary legislative changes. <u>Additionality:</u> EBRD investment is needed to close the funding gap. EBRD will also help to mitigate the carbon transition risk via the achievement of energy savings as well as a reduction of natural gas consumption leading to a reduction in CO <sub>2</sub> emissions of around 40,824 tonnes per annum. EBRD’s involvement in the Project will help the Client achieving higher environmental and gender and inclusion standards. EBRD provides expertise, innovation and capabilities that are material to the timely realisation of the Project’s objectives. <u>Sound banking</u> – The transaction is a sovereign loan. [REDACTED]
<b>Key Risks</b>	<b>Fiscal/Macro-economic risk:</b> Moldova’s public debt level increased to 35.9 per cent of gross domestic product (“GDP”) at the end of 2023. It is expected to peak at 38.2 per cent in 2024 due to medium-term developmental spending needs. Moody’s reaffirmed Moldova’s rating at B3 with stable outlook in August 2023, noting a manageable debt and high debt affordability. On 27 September 2024, Fitch assigned Moldova a rating of B+ with stable outlook. <b>Implementation risk:</b> The Company will establish a Project Implementation Unit (“PIU”) responsible for the Project implementation, which will include experts to be hired and paid from the loan and will be supported by TC-financed international consultants. [REDACTED]
<b>Strategic Fit Summary</b>	The Project is consistent with the Bank’s Municipal and Environmental Infrastructure Sector Strategy, Country Strategy for Moldova , Green Economy Transition (“GET”) Approach 2021-2025 , Strategy for the Promotion of Gender Equality and with the Agreement Establishing the Bank.

<sup>2</sup> Article 27 of the AEB provides the basis for this decision.

**ADDITIONAL SUMMARY TERMS FACTSHEET**

<b>EBRD Transaction</b>	<p>The facility consists of a sovereign loan of up to EUR 143.5 million to the Republic of Moldova to be on-lent to Termoelectrica JSC in three tranches [REDACTED]</p> <p>The Project is also expected to be complemented by investment grants, managed by the Bank, of up to EUR 24.5 million from the EU-NIP and up to EUR 15 million from the E5P. [REDACTED] The EIB is expected to provide a parallel loan of up to EUR 143.5 million to finance additional DH investments.</p>
<b>Existing Exposure</b>	[REDACTED]
<b>Maturity / Exit / Repayment</b>	The tenor of the loan will be 18 (eighteen) years [REDACTED]
<b>Potential AMI eligible financing</b>	None
<b>Use of Proceeds - Description</b>	<p>The proceeds of the loan and the investment grants will be used to finance demand side measures, network rehabilitation and new pumping stations to further modernise and improve DH infrastructure in Chisinau.</p> <p>The Project will finance a blend of solutions that will collectively improve the quality of DH services [REDACTED], reduce gas and heat consumption and enhance energy efficiency. These measures will prepare the DH system for greater use of renewable or waste heat-based energy sources. Investment will include: (i) Construction of horizontal heating networks in buildings; (ii) Supply and installation of IHS and the associated heating network; (iii) Rehabilitation of district heating primary network (up to 15km); (iv) Construction of up to two pumping stations; v) Implementation of pilot projects focused on energy efficiency measures in residential buildings; vi) Design and construction supervision; (vii) PIU staffing and Special Account audit costs.</p> <p>[REDACTED]</p>

<b>Investment Plan</b>	[REDACTED]
<b>Financing Plan</b>	[REDACTED]
<b>Key Parties Involved</b>	<ul style="list-style-type: none"> <li>• <b>Borrower:</b> MoF, the signatory to the Loan Agreement. The proceeds of the loan will be on-lent to the Company;</li> <li>• <b>Project Entity/Company:</b> Termoelectrica JSC, responsible for Project implementation, the beneficiary of the assets to be procured under the Project;</li> <li>• <b>Key Project counterparty:</b> the Ministry of Energy (“MoE”), line ministry responsible for DH sector;</li> <li>• <b>Co-Financier:</b> EIB, EU NIP, E5P.</li> </ul>
<b>Conditions to subscription / disbursement</b>	[REDACTED]
<b>Key Covenants</b>	[REDACTED]



<b>Security / Guarantees</b>	Sovereign loan.
<b>Other material agreements</b>	<ul style="list-style-type: none"> <li>Grant Agreement between the Borrower, the Bank and the Company in respect of the EU NIP investment grant;</li> <li>Grant Agreement between the Borrower, the Bank and the Company in respect of the E5P investment grant;</li> <li>Project Agreement between the Bank and the Company.</li> </ul>
<b>Associated Donor Funded TC and Blended Concessional Finance</b>	<p><u>Pre-signing:</u>  <b>TC 1: Feasibility Study</b> including technical, economic, environmental and social due diligence of the Project. The cost of the assignment is EUR 475,560 financed by Sweden (completed).</p> <p><u>Post-signing:</u>  <b>TC 2: Project Implementation Support (“PIS”)</b> to assist the Company with (i) preparation of design (for the Construction of horizontal heating networks in buildings included in Tranche I), including structural survey and energy audits (for the Pilot projects focused on energy efficiency measure in residential buildings) and tender documentation; (ii) tender evaluation and contract negotiations; (iii) administration of the supply contracts; and (iv) reporting to the Bank. [REDACTED]</p> <p><b>TC 3: Procurement Support (“PS”)</b>, an individual expert to assist the PIU with tendering and contracting of PIS experts (under TC2) and the Technical Design Consultant. [REDACTED]</p> <p><b>TC 4: Corporate Development Programme (“CDP”)</b> to assist the Company with (i) preparation of an enhanced CDP tailored to foster the Company’s corporate governance, including support with the implementation of a Corporate Governance Action Plan (“CGAP”) and the implementation of a Financial and Operational Performance Improvement Programme (“FOPIP”); (ii) assessment of sector reform capacity gaps in the DH sector in Moldova and support for the adoption of required legislative changes in compliance with the Energy Community and EU legislation; (iii) the introduction of a change in legislation for the mandatory implementation of horizontal heating networks and associated energy efficiency measures in compliance with the Energy Community and EU legislation; (iv) assessment of potential improvements to the existing tariff methodology; (v) implementation of a social support programme to protect low income and vulnerable customers; (vi) implementation of a stakeholder participation programme to support the Company with public outreach campaign to promote the switch from vertical to horizontal secondary system, including energy efficiency measures; and (vii) improving collection rates by assessing and developing an automated billing system. The CDP TC will also support the Company’s inclusive policies and practices through the revisions of its Human Resources (“HR”) policies to promote women’s employment within the Company, the collection of sex-disaggregated data, and the introduction of training requirements for staff on gender equality topics, including Gender-Based Violence and Harassment (“GBVH”). [REDACTED]</p> <p><b>TC 5: Lender’s Monitor (“LM”)</b> consultant to provide oversight of the Project implementation during the construction phase. [REDACTED].</p> <p><b>Cost sharing:</b>  Client’s Contribution: The Borrower will provide a financial contribution to the Project by financing from the EBRD loan proceeds costs associated with (i) the PIU staff responsible for the Project implementation [REDACTED], and (ii) the Construction supervision services [REDACTED]. In addition, the Borrower will cover the Project related taxes.</p> <p><b>A. Co-investment grants / Concessional Finance (Non-TC)</b>  The EBRD Loan will be co-financed by: <ul style="list-style-type: none"> <li>An investment grant of up to EUR 24 million from the EU-NIP.</li> <li>An investment grant of up to EUR 15 million from the E5P.</li> </ul> This concessional financing will be used for Tranche I of the Project to finance the <i>Implementation of Pilot projects focused on energy efficiency measures in residential buildings</i> component. [REDACTED]</p>

[REDACTED]

## INVESTMENT PROPOSAL SUMMARY

### 1. STRATEGIC FIT AND KEY ISSUES

#### 1.1 STRATEGIC CONTEXT

Chisinau's DH system, established in the early 1950s, has been deteriorating since the collapse of the Soviet Union due to aging infrastructure, underinvestment, emigration, and disconnections. [REDACTED]

The vertical secondary systems in buildings, inherited from the Soviet times, along with individual disconnections, have caused inconsistent heating ("too hot or too cold") and reduced the quality of service for remaining customers. [REDACTED] Meanwhile, the DH service provider operates and maintains outdated distribution and generation infrastructure.

The proposed Project aims to address legacy infrastructure issues in the demand side of the network and promote system decarbonisation. It includes investments to prepare the DH system for more use of renewable and waste heat sources as it phases out fossil fuel-based heat generation. The Project will improve the DH operational and energy efficiency through better system control and introduce apartment-level consumption-based billing, a major policy objective for the district heating sector. Implementing IHS and horizontal heating networks will increase the quality and reliability of heating services, reverse the disconnection trend, and lead to new connections. These measures will reduce gas consumption and restore affordable centralised domestic hot water ("DHW") supply.

The Project is expected to reduce annual CO<sub>2</sub> emissions by over 40,824 tonnes. It will also increase the cost efficiency and competitiveness of the DH system and improve the reliability and quality of the DH services [REDACTED].

Additionally, the implementation of Pilot projects focused on energy efficiency measures in residential buildings will serve as a demonstration project for other inhabitants in Chisinau, showcasing deep renovations in the residential sector (which accounts for over half of the country's total final energy consumption). This will provide a compelling example that will encourage further investment and scaling up of energy efficiency initiatives in the DH sector. This will lead to enhanced energy efficiency, extended building lifespan, mitigated health risks, and improved room comfort.

The Project is the third follow-on investment under Chisinau's GCAP, addressing the priority environmental challenges in the energy sector and the identified need for a district heating energy efficiency programme. The Project is expected to decrease the thermal energy demand by 20 per cent, thus meeting the criteria of improving energy efficiency by over 20 per cent and therefore is eligible under the Green Cities Framework 2 ("GrCF2").

The scope of the Project meets the EU Taxonomy criteria for a substantial contribution to climate change mitigation outlined under "District Heating/cooling distribution" and "Installation, maintenance and repair of energy efficiency equipment".

The Project aligns with the Bank's Municipal and Environmental Infrastructure Sector Strategy, supporting the commercialisation of public utilities and infrastructure, and the Country Strategy for Moldova, focusing on increased energy and resource efficiencies, greater climate resilience and decarbonisation. It is also consistent with the EBRD's Strategy for the Promotion of Gender Equality and contributes to Moldova's decarbonisation efforts in line with the Paris Agreement and multiple United Nations SDGs, including SDG 3: Good Health and Well-Being, SDG 4: Quality Education, SDG 5: Gender Equality, SDG 7: Affordable and

Clean Energy, SDG 8: Decent Work and Economic Growth, SDG 9: Industry, Innovation, and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 13: Climate Action and SDG 17: Partnerships for the SDGs. Additionally, the Project aligns with the Green Economy Transition (“GET”) Approach 2021-2025 by directly contributing to climate change mitigation through the reduction of greenhouse gas (“GHG”) emissions.

## 1.2 TRANSITION IMPACT

The GrCF2 represents a strategic and multi-project approach seeking to help identify and address environmental challenges in selected large cities in our countries of operation. The primary goal is to achieve significant environmental improvement and to promote the **Green** transition quality within the relevant cities. In addition to the environmental objective, the GrCF2 also promotes sustainable cities through inclusive, resilient, well-governed and smart urban development. Depending on which area can generate the strongest and most relevant TI, either **Well-governed, Inclusive, Resilient or Competitive** will be pursued and presented as the secondary transition quality for each sub-Project under the framework. These transition objectives are supported by the development and implementation of a city-specific GCAP. This aims to identify environmental challenges and facilitate better coordination and buy-in among stakeholders. It also helps to prioritise and develop the best ways to address the environmental challenges through targeted investment, services and policy instruments.

The Project will primarily promote the **Green** transition quality via the installation of IHS and replacement of vertical distribution systems with horizontal loops. This will facilitate the introduction of consumption-based billing at the apartment level, reinstate the DHW supply [REDACTED] and reduce the energy consumption in the pump houses. The Project will lead to annual energy savings of 827,355 GJ and annual reduction of 40,824 tonnes of CO<sub>2</sub> emissions. Without the Bank’s participation, higher environmental standards might not have been pursued. These benefits will be achieved by minimizing gas and electrical consumption from individual boilers and optimizing the operation of the DH system. Additionally, the Project is the City’s third follow-on investment stemming from the GCAP, which identifies use of fossil fuels in the DH system as a priority challenge in the energy sector and addresses the need to undertake an energy efficiency programme. This Project will directly contribute to the implementation of the GCAP Action 3.1.5. *District heating energy efficiency programme*.

The Project will also support the **Well-governed** transition quality through the introduction of necessary legislative changes aiming to scale up the consumption-based billing and metering. Moreover, sector diagnostics, sector reform, corporate development plan, public outreach campaigns with apartment owners will be developed under the CDP TC. In addition, the implementation of a Corporate Governance Action Plan, as part of the CDP, is expected to address key corporate governance issues identified in the Company. The Project is **gender additional** by supporting the Company’s inclusive policies and practices through the revisions of its HR policies to promote women’s employment within the Company, the collection of sex-disaggregated data, and the introduction of training requirements for staff on gender equality topics, including GBVH.

**Delivery risks** to the TI relate to: (i) delays in installation of horizontal heating networks, due to the inability/lack of willingness of the customers to bear the costs for renovation of the heat system into the apartment; (ii) follow-on investment failing to materialise. These risks are mitigated by: (a) the Company has valuable experience from the implementation of the World Bank (“WB”) project, similar in scope, as well as the CDP Consultant will assist the Company with a public outreach campaign, organised for the DH users/apartments’ owners to secure their “buy-in” to the Project; (b) the City and government authorities remain committed to support green development, as demonstrated by the Bank's projects in the country.

The TI objectives of the GrCF2 Framework and the relevance for this sub-Project are detailed in Section 2 below.

### 1.3 ADDITIONALITY

Identified triggers	Description
No triggers identified.	n/a

  

Additionality sources:	Evidence of additionality sources:
<b>Financing Structure</b> EBRD offers financing that is not available in the market from commercial sources on reasonable <b>terms and conditions</b> , e.g. a longer grace period. Such financing is necessary to structure the project. EBRD offers a <b>tenor</b> , which is longer than available to the client in the market on reasonable terms and conditions. EBRD investment is needed to close the <b>funding gap</b> . At the same time, EBRD does not crowd out other sources, such as from IFIs, government, commercial banks and/or complements them.	<ul style="list-style-type: none"> <li>- There is a very limited market for long-term borrowing in Moldova. Local banks cannot offer loans matching the economic life of infrastructure assets.</li> <li>- The size of the Bank's investment fills the local market funding gap that is required to structure the Project, so that it achieves the energy efficiencies. At the same time, the Bank does not crowd out other sources, but will co-finance the Project along with other IFI(s) and international financiers/donors such as EIB, EU-NIP, E5P.</li> </ul>
<b>Risk mitigation</b> EBRD helps the client to mitigate <b>carbon transition risks</b> and take climate action, such as to move along a low carbon transition pathway.	<ul style="list-style-type: none"> <li>- The Project will lead to a significant reduction in GHG emissions due to the reduction of gas and electricity consumption. The Project will contribute towards the Moldova's National Energy and Climate Action Plan ("NECP") as it prioritises refurbishment of the DH network, as well as Chisinau's GCAP which focuses on energy efficiency improvements in the network.</li> </ul>
<b>Standard-setting: helping Projects and clients achieve higher standards</b> Client seeks/makes use of EBRD expertise on <b>higher environmental standards</b> , above 'business as usual' (e.g. adoption of emissions standards, climate-related ISO standards etc.). <b>Gender SMART</b> : Client seeks/makes use of EBRD expertise <b>on higher gender equality and inclusion standards</b> . Client seeks/makes use of EBRD expertise on <b>best international procurement standards</b> .	<ul style="list-style-type: none"> <li>- EBRD TI, environmental and social ("E&amp;S") related conditionalities go far beyond what commercial funding sources would require. This includes procurement procedures, accounting transparency, sector reform and clear link to the green economy.</li> <li>- The Project will support the Company's inclusive policies and practices via revisions of its HR policies to promote women's employment within the Company, the collection of sex-disaggregated data via the introduction of a gender survey within the Company to better understand the internal situation towards gender equality, and the introduction of training for staff on gender equality topics, including GBVH.</li> </ul>
<b>Knowledge and innovation</b> EBRD provides expertise, innovation, knowledge and/or capabilities that are material to the timely realisation of the project's objectives, including support to <b>strengthen the capacity of the client</b> .	<ul style="list-style-type: none"> <li>- The construction of horizontal heating networks in buildings will include the installation of apartment level smart heat meters which will allow for remote reading and provide more granular data on individual consumer consumption.</li> </ul> EBRD's knowledge and experience in implementing digital tools will ensure the timely realisation of this component.

## 1.4 SOUND BANKING - KEY RISKS

Risks	Probability / Effect	Comments
<b>Project Specific Risks:</b>		
Implementation risk	Medium/ High	<p>The risk derives from: (i) the lack of the Company's experience in implementing the Bank's projects; (ii) the Company's restricted ability to access its accounts to cover costs associated with the Project implementation; and (iii) the inability/lack of willingness of the customers to cover the costs associated to renovation of the heat system into the apartment (nearly EUR 1,200), required by the shift from the vertical DH system to horizontal DH system.</p> <p><u>Mitigation:</u> (i) The Company has experience in implementing WB-financed projects of similar scope. In addition, the Company will establish a PIU responsible for the Project implementation on a day-to-day basis, which will be adequately staffed, including with experts to be hired and paid from the loan. Implementation risk will be further mitigated using TC-funded international consultants to support the Company's PIU in Project management, procurement and supervision of works. The international consultants will also support the Company with a public awareness raising campaign promoting the benefits of the switch to horizontal heating systems and building renovation. [REDACTED](iii) In April 2024, the Government approved the implementation of the Financing Programme for the Energy Efficiency Fund in Moldova's Residential Sector (the "REEF"). This programme will provide financial instruments to vulnerable populations, enabling them to finance essential renovations for upgrading heating systems in their apartments. [REDACTED]In addition, the CDP Consultant will assist the Company with public outreach campaign, organised for the DH users /apartments' owners to secure their "buy-in" to the Project.</p>
Demand risk	Medium/ Medium	<p>The risk is derived from the historical trend of disconnections from the DH system in Moldova. Customers may switch to other heating sources, such as individual gas heaters, which are expensive but provide better control over the heat delivered.</p> <p><u>Mitigation:</u> Individual disconnections in multi-storey residential buildings are regulated by the provisions of the Law no.92 dated 29 May 2014. Disconnection of the centralized DH system, including for the purpose of connecting to another source of thermal energy supply, is prohibited, except the cases where feasibility studies demonstrate the economic profitability of disconnection. Disconnected households (according to the recent methodology introduced in 2023) are required to maintain a minimum room temperature of at least +18°C during the winter period. If the disconnected households fail to maintain these conditions, they must pay 5 per cent to 10 per cent of the calculated cost of thermal energy per square meter of the apartment. As a result, the disconnected apartments will not benefit anymore from the heating paid by other apartments in the same building, removing the "free-rider" issue and making the individual gas boilers more expensive, thus further discouraging customer disconnections. Additionally, the Project envisages the implementation of horizontal heating networks in buildings and the installation of IHS, aimed at providing connected customers control over their energy consumption, at the same time attracting disconnected customers to use DH services again.</p>
<b>External Risks:</b>		



Fiscal/ Macro- economic risk	Medium/ High	The risk derives from the debt capacity of the Borrower, as the loan repayment will be a direct obligation of the Government of Moldova. <u>Mitigation:</u> Moody's reaffirmed Moldova's rating at B3 with Stable Outlook in August 2023. According to Moody's, credit strengths include Moldova's manageable debt burden on the back of sizeable international support and long-term concessional terms, improved resilience of the banking sector enabled by reform progress under the International Monetary Fund ("IMF") Programme. Geopolitical uncertainties are weighing on the short-term economic outlook. The government's expansionary fiscal policy in 2023 and the drop in inflation have brought the first signs of an economic rebound. The progress achieved on energy resilience and the expected rise in real incomes are likely to improve growth prospects in 2024. The public debt level is 35.9 per cent of the GDP in 2023 and is expected to peak at 38.2 per cent in 2024. Additionally, Fitch assigned Moldova a rating of B+ with stable outlook on 27 September 2024.
Regulatory risk	Medium/ Medium	[REDACTED] <u>Mitigation:</u> Currently, the Company charges tariffs at cost recovery (the last tariff update was approved by the National Agency for Energy Regulation ("ANRE") on 23 July 2024) [REDACTED]. Additionally, the expected improvements from further upgrades to central DH infrastructure in Chisinau should enable the Company to enhance the sustainability of its operations.
Geopolitical risk	Medium/ High	The risk derives from the war in Ukraine, which increases geopolitical risks and will have an impact on Moldova's economic confidence, trade and investment prospects.  <u>Mitigation:</u> Security risks remain high but stable. The Government continues its focus on economic development and regional connectivity, it is firmly committed to democratic reforms and integration with the EU. [REDACTED]

## 2. MEASURING / MONITORING SUCCESS

<i>Overall objectives of project</i>	<i>Monitoring benchmarks</i>	<i>Implementation timing</i>
<ul style="list-style-type: none"> <li>- Good financial and operational performance</li> <li>- On-time Project implementation</li> </ul>	<ul style="list-style-type: none"> <li>- Growth in revenues, profitability and cash flows</li> <li>- Completion according to the timeline and within the budget</li> </ul>	[REDACTED]

The TI objectives and the relevance for this sub-Project are detailed in the table below. The transition qualities will be monitored at the Framework level aggregating data on each transition benchmark in the table below for all sub-projects.

Primary quality: Green								
Obj. No.	FW Monitoring Indicator	Corresponding Sub-Project Monitoring Indicator	Further Details Sub-Project level	Details for Specific Sub-Project	Baseline (Sub-Project)	Target (Sub-Project)	Due date (Sub-Project)	TC Related?
1.1	Number of recommended policy or strategy agreed by relevant stakeholder(s)	Recommended policy or strategy agreed by relevant stakeholder(s)	<b>New Green City Action Plans:</b> 30 new GCAPs finalised and submitted for approval by relevant authorities, and includes priority actions and a monitoring strategy in each participating City. Baseline target of the GrCF and GrCF2 combined is 20 GCAPs.	Chisinau GCAP was completed and approved by the City Council in May 2020.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

1.2	Performance or action plan implemented by the client	Performance or action plan implemented by the client	<b>Strong follow-on support:</b> 50 per cent of transactions (under GrCF2 and future extensions) are follow-on investments addressing priority environmental challenges identified in the GCAPs.	The Project is the City's third follow-on investment from the GCAP, which addresses the priority environmental challenge of climate mitigation, and in line with the <i>Strategic Objective 3. Sustainable and efficient energy use in the City.</i>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
1.3	Performance or action plan implemented by the client	Performance or action plan implemented by the client	<b>Multiple green investment:</b> Each participating city makes on average at least 3 investments (with or without EBRD financing) that address priority environmental challenges identified by the GCAP, where all EBRD financed projects will meet the extended Framework's eligibility criteria for investments.	The Project will be signed and implemented as it meets the eligibility criteria for investment under GrCF2. It is expected to yield significant climate change mitigation benefits, including a reduction in CO <sub>2</sub> emissions by 40,824 tCO <sub>2</sub> /year.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
1.4	Performance or action plan implemented by the client	Performance or action plan implemented by the client	<b>Effective GCAP implementation:</b> The Framework achieves at least 50 per cent of all verifiable targets, set in the GCAP, within five (5) years after the respective GCAP finalisation (including both investments and well-defined policy measures).	The Project addresses GCAP identified priority environmental challenges in the DH energy sector and supports the implementation of the GCAP Action 3.1.5. <i>District heating energy efficiency programme.</i>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
1.5	Improved environmental standards	Improved environmental standards	<b>Environmental impact:</b> The Framework achieves significant environmental improvements for at least one priority environmental challenge, i.e. the promotion or protection of certain performance levels (colour codes) for priority environmental challenges as specified in the GCAPs, for more than 50 per cent of the Green Cities.	While the Project will reduce the City's CO <sub>2</sub> emissions from its district heating, the relevant environmental improvements within the respective cities will not be monitored at the Project level.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

## Secondary quality: Well governed

Obj. No.	FW Monitoring Indicator	Corresponding Sub-Project Monitoring Indicator	Further Details Sub-Project level	Details for Specific Sub-Project	Baseline (Sub-Project)	Target (Sub-Project)	Due date (Sub-Project)	TC Related
2.3	Number of corporate governance improvements: Commitment to Corporate Governance	Corporate governance improved: Commitment to Corporate Governance	Develop and implement a well-defined Corporate Governance Action Plan that addresses most of the corporate governance issues identified in the Company.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2.3.1	Actions in the Corporate Governance Action Plan implemented	Actions in the Corporate Governance Action Plan implemented	Develop and implement a CGAP to bring Termoelectrica's corporate governance in line with best international practices.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2.3.2	Legal, Institutional or Regulatory Frameworks	Legal, Institutional or Regulatory	Legislation is amended to enable increased consumption-	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]



	in target areas improved	Frameworks in target areas improved	based billing and metering.					
2.3.3	Institutional-level capacity strengthened in target area	Corporate Governance improved	Develop and finalise a CDP	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

### Additional Monitoring Indicators

Objective	FW level aggregate indicator	Indicator (Sub-Project)	Details (Sub-Project)	Baseline (Sub-Project)	Target (Sub-Project)	Due date (Sub-Project)	TC Related
<b>Core client indicators</b>	Total Population benefitting from improved district heating services (individuals)	Number of individuals with improved access to district heating/affordable sanitary hot water	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	Annual reduction in tonnes of CO <sub>2</sub> equivalent savings (tonnes CO <sub>2</sub> eq / yr)	CO <sub>2</sub> emissions reduced	Approximately 40,824 tonnes of CO <sub>2</sub> per annum	0	40,824	[REDACTED]	[REDACTED]
	Annual reduction in gas and heat consumption	Reduced energy consumption for space heating	827,355 GJ reduction per annum	0	827,355	[REDACTED]	[REDACTED]
<b>Gender SMART</b>	Number of stakeholders with practices improved	Practices of the relevant stakeholder improved	The Project will support the Company's inclusive policies and practices via revisions of its HR policies to promote women's employment within the Company, the collection of sex-disaggregated data via the introduction of a gender survey within the Company to better understand the internal situation towards gender equality, and the introduction of training for staff on gender equality topics, including GBVH.	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

## 3. KEY PARTIES

### 3.1 BORROWER

The transaction will be a sovereign loan to the Republic of Moldova, represented by the Ministry of Finance, to be on-lent to the Company. The Company will be responsible for implementing the Project under the supervision of the MoE, which serves as the coordinating ministry for the energy projects.

### 3.2 PROJECT ENTITY

The Company was established in 2015 through the absorption of the CHP Plant and CET-1 by CET-2, as well as the acquisition of functional assets from the then DH supplier, Termocom JSC, which was previously wholly owned by the City and underwent liquidation.

It is wholly owned by the Government through the Public Property Agency and stands as the primary producer of thermal energy in cogeneration mode and electricity in Moldova. Accounting for over 87 percent of the total thermal energy produced in the country, the Company also generates approximately 13 percent of Moldova's total electricity consumption.

Currently, it serves 4,400 buildings or 500 thousand consumers, representing over 60 percent of Chisinau's population (which totals 800,000 inhabitants).

With a total current staff of 1,800, the Company operates two of the three major CHP Plants in Moldova (the third being located in Balti). These facilities include:

- CET-1 (also called Termoelectrica "Source 2") with an installed 66 MW electrical capacity and 278 MW thermal capacity;
- CET-2 (also called Termoelectrica "Source 1") with an installed 258 MW electrical capacity and 1,394 MW thermal capacity.

Heat is also produced by two Heat Only Plants (also called "CT Vest" and "CT Sud") with a total installed capacity of 790 MWth and one modular power plant on biomass with an installed capacity of 150 kWth. For homes located in the 14 suburban areas outside of the central networks, 19 smaller heating plants are utilized and only supply thermal energy, with a total capacity of 66 MWth. Heat is distributed throughout the pipe network of over 250km.

Space heating and DHW constitute the core services of the Company, supplying nearly 1.5 million MWhth of heat energy annually to the city of Chisinau and its surrounding areas. While the majority of the Company's revenue comes from space heating and DHW, it also offers industrial steam services and contributes approximately 620 thousand MWhe of electricity annually to the national electricity grid.

## Historical Financial Performance

[REDUCTED]

## 4. MARKET CONTEXT

**Institutional framework.** The energy sector in Moldova is overseen by the Government of Moldova, which sets the direction of energy policy at the national level. The Government establishes the main priorities and objectives for energy policy, with responsibilities distributed among several ministries and agencies. Ministries are tasked with implementing primary legislation, such as laws, while agencies are responsible for implementing secondary legislation, including regulations.

In February 2023, the Government underwent a structural change that included establishing a dedicated energy ministry, the MoE. The MoE now serves as the central authority responsible for shaping and implementing the energy policy of the state.

**Legislation.** Moldova joined the Energy Community in 2010 and has deepened its integration with the EU. As part of its Association Agreement with the EU signed in 2014, Moldova is obligated to adopt key EU energy legislation. As a result, Moldova's energy policy is becoming more aligned with the EU energy policy.

The main legislation governing the energy sector includes: (i) *National energy strategy* (this establishes the long-term goals and priorities for Moldova's energy sector); (ii) *Law on Heating and cogeneration promotion* (partially transposes EU Directive 2012/27 on energy efficiency in the district heating sector, aiming to promote efficient heating and CHP cogeneration); (iii) *Law on energy efficiency* (addresses energy efficiency measures across various sectors to reduce energy consumption and improve efficiency); and (iv) *Law on Promoting the use of energy from renewable energy sources* (promotes the development and utilization of renewable energy sources to diversify Moldova's energy mix and reduce reliance on conventional fuels).

These laws are pivotal in shaping Moldova's energy policy and aligning it with European standards and directives.

**Tariffs.** Heat and electricity tariffs are set by ANRE. The last tariff adjustment, for the services provided by the Company, was approved in July 2024 with the tariff levels set at MDL 2,116 (ca. EUR 110)/ MWhth for heat and MDL 2.0 (ca. EUR 0.10)/KWh for electricity. There is no VAT paid for DH services in Moldova.

**District Heating sector.** [REDACTED] More than 99 per cent of the total DH consumption is concentrated in the cities of Chisinau and Balti. In other parts of the country, alternative heating sources are predominantly used, with individual stoves being the most common technology for heating.

DH consumption in Moldova is modest, at around 2.20TWh and has declined by over 20 percent from 2010. This reduction in consumption is largely due to the retirement of certain natural gas-fired capacity. The remaining DH infrastructure, which has operated without significant rehabilitation or retrofitting since its construction, has experienced a gradual decline in efficiency, maximum output and reliability over time.

The DH sector in Moldova is dominated by two state-owned entities: Termoelectrica, which serves the city of Chisinau, and CET-Nord, which serves the city of Balti. These companies produce and supply thermal energy and electricity using natural gas in CHP plants. Termoelectrica operates two major CHP plants in the country, while CET-Nord operates the third.

In Chisinau, the DH market encompasses residential buildings, commercial entities including various industries, and public administration buildings. DH remains the most economical heating solution for a significant portion of the urban population. It is particularly well-suited for densely populated areas, primarily cities characterized by multi-storey apartment buildings. Nearly 68 percent of dwellings in Chisinau use the centralized DH system, followed by 23 percent using autonomous heating systems, and only 9 percent relying on individual stoves.

Historically, Termoelectrica, as the main DH supplier, faced competition primarily from gas boilers and individual stoves. Despite this competition, DH currently holds the largest share of the broader heating market in Chisinau.

In addition to Termoelectrica, centralized DH in Chisinau is also provided by Apa-Canal Chisinau, a utility fully owned by the City. Apa-Canal Chisinau's primary activity is the provision of water and wastewater services. [REDACTED]

[REDACTED] In contrast, Termoelectrica delivers about 1.5 million MWhth annually. Termoelectrica and Apa-Canal Chisinau are not direct competitors as their networks cover different parts of the city and customers typically do not have a choice which DH operator to connect to.

Despite challenges such as disconnections in favour of individual boilers, a well-designed and functioning DH system remains a proven energy-efficient and cost-effective method to supply heat to densely populated areas. It also facilitates the gradual introduction of renewable or low carbon heat supplies to a large part of the population. There is potential for expansion of DH services into industrial areas that are currently not connected to any DH network and to new residential construction, offering opportunities for the Company's growth.

## 5. FINANCIAL / ECONOMIC ANALYSIS

### 5.1 SOVEREIGN ASSESSMENT

The public debt level was 35.9 per cent of the GDP in 2023 compared with 33.7 per cent in 2022 due to increased inflow of external financing. It is expected to peak at 38.2 per cent of GDP in 2024 due to medium-term developmental spending needs. As reported by the MoF, during 1Q 2024, the public debt level slightly decreased to 33.4 per cent. This reduction was primarily supported by an increased GDP forecast for 2024. External public debt, which is denominated in foreign currency and to a large degree owed to multilateral donors under concessional terms, represented around 61.6 per cent of total public debt at the end of 2023 versus 57.5 per cent in 2022. As at the end of 1Q 2024, the external public debt level slightly decreased to 60.0 per cent of total public debt. According to the IMF (December 2023), Moldova remains at low risk of external and overall debt distress. Risk factors to the debt sustainability include significant shocks to the economic growth, sizeable contingent liabilities and slower progress of structural reforms. Fiscal discipline remains critical to safeguard public debt sustainability.

[REDACTED]

Official creditors' external financing is helping to cover the fiscal deficit. In 2023 they provided around USD 900 million almost equally divided between the EU, the WB, the IMF and other bilateral donors. This support is likely to be scaled down to USD 550 million in 2024. In December 2023, the IMF Board approved the fourth review under the Extended Credit Facility (the "ECF")/ Extended Fund Facility (the "EFF"), which immediately released USD 95 million. The programme was extended by 6 months until October 2025. At the same time, a new parallel Resilience and Sustainability Facility in the amount of USD 173 million was approved with the aim to support energy and financial sector resilience. On the back of significant capital inflows, the domestic currency appreciated 6.2 per cent against the euro from the beginning of 2023 and foreign reserves reached USD 5.3 billion as of mid-June 2024, covering more than five months of imports.

Moody's reaffirmed Moldova's rating at B3 with Stable Outlook in August 2023. According to Moody's, credit strengths include Moldova's manageable debt burden on the back of sizeable international support and long-term concessional terms, improved resilience of the banking sector enabled by reform progress under the IMF Programme as well as a willingness and ability to absorb technical expertise and financial support from the international community to help strengthen the institutional framework. [REDACTED]

### 5.2 ECONOMIC ANALYSIS

[REDACTED]

The main economic benefits of the Project, resulting from the investment are:

- *Direct benefits:* reduction in heat costs and decreased energy bills for end customers, improved access to hot water for buildings connected to the DH network, reduction in GHG emissions and harmful particulate matter emissions.
- *Wider benefits:* increased efficiency of the heat transfer and customer comfort, improved service quality and enhanced system reliability, overall improvement in air quality in Chisinau.
- *Catalytic and indirect development related benefits:* contributions to job creation and improved health of the local population.

### 5.3 SENSITIVITY ANALYSIS

[REDACTED]

### 5.4 PROJECTED PROFITABILITY FOR THE BANK

[REDACTED]

## 6. OTHER KEY CONSIDERATIONS

### 6.1 ENVIRONMENT

Categorised B (2019 ESP). The Project is aligned with Chisinau GCAP and is expected to result in significant E&S benefits associated with the overall improvement in the quality of heating and hot water services, improved energy efficiency, reduction in heat and water losses, and substantial reduction in GHG emissions. Implementation of the proposed Priority Investment Programme is expected to result in a reduction of 40,824 tonnes of CO<sub>2</sub>/year and save 827,355 GJ/year of primary energy over 20 years. The Project will not involve any investment into generating capacities and focus only on the distribution side measures in the existing buildings.

Environmental and social due diligence (“ESDD”) has been carried out as part of the Feasibility Study by independent consultants. This involved a corporate Environmental and Social (“E&S”) audit of the Company, review of risks associated with the current operations, associated facilities and management systems, and an E&S assessment of the investment components. The ESDD has established that the Company has an integrated Environmental & Social Management System (“ESMS”) in place that is certified to ISO 14001 for Environmental Management and ISO 45001 for Health and Safety Management. While the organizational structure for ESMS is in place, the assessment has shown that the Company lacks internal E&S capacity and consistency to implement it currently in line with IFI standards. Key gaps in environmental management within the Company’s day-to-day operations relate to contractor management, resource efficiency, hazardous substances and materials management, and waste management.

The Company’s Human Resources systems are fully aligned with national laws of labour and occupational health and safety (“OHS”) and include internal policies, procedures, and a collective agreement. All staff members receive environment health and safety (“EHS”) training, and the Company has a dedicated OHS department that conducts inspections, coordinates training sessions, oversees medical checks, investigates incidents/accidents, and develops and implements safety procures. The Company also has an Emergency Preparedness and Response procedure in place. Some improvements should be implemented concerning a workforce grievance mechanism to ensure compliance with EBRD’s Performance Requirement 2 (“PR2”) and included in the Environmental and Social Action Plan (“ESAP”).

[REDACTED] Appropriate ESAP measures have been developed to address the risk of economic uncertainty and job insecurity for workers, requiring the Company to implement the process following EBRD PR2. GBVH related risks have also been assessed during ESDD, and the internal grievance mechanism will need to be further improved to address potential risks.

The Project is still in the design phase, but the Company has confirmed that best available technology will be considered during the design to maximize resource efficiency within the



Project. The Project will go through the national environmental impact assessment process and local approvals to obtain the necessary construction and environmental permits prior to the start of the construction works.

The Project will be implemented in heavily urbanised areas, and most of construction works will take place within the footprint of the current sites. It will not result in either physical displacement nor permanent or significant economic displacement. The Project will not have impacts on any sensitive areas or protected sites. The only potential limited impact on biodiversity may take place at the city's Riscani forest-park due to the construction of a new pumping station that will require the removal of about 600 m<sup>2</sup> of tree vegetation. The Company will fully comply with the environmental permitting requirements set by the authorities, and Company's management has confirmed that as a mitigation measure these trees will be replanted elsewhere in the city. Additionally, under a concurrent WB project, a Road Map for the country is being prepared as part of overall decarbonisation efforts.

The Project's E&S impacts and risks will be mostly temporary and related mainly to the construction phase. Impacts will include dust and noise generation, increased traffic and nuisance, temporary disruptions to supply of heat and hot water to the community and restrictions of public access. The main receptors of these impacts will be the local population in the buildings undergoing rehabilitation works and the nearby communities, hence ensuring their health and safety and adequate stakeholder engagement throughout the rehabilitation phases will be of utmost importance. The identified impacts and risks can be managed through specific mitigation measures that have been incorporated in the Project's ESAP, including in relation to further improving the Company's E&S capacity, improving resource efficiency, pollution prevention (air emissions, waste and hazardous substances and materials management), community health and safety, traffic safety, biodiversity conservation, cultural heritage, stakeholder engagement and grievance mechanism. To ensure safe handling of any asbestos-containing materials ("ACMs"), an ACMs Management Plan will need to be developed and implemented prior to the start of the construction works, and any ACMs will need to be removed and disposed of safely by competent contractors. The contractors will also be required to develop the construction EHS management plans and include Chance Finds Procedures. The Company must ensure that relevant E&S requirements are fully incorporated in tender documents for suppliers and contractors.

The ESAP and a Stakeholder Engagement Plan have been developed to address the identified issues and management of the EHS aspects of the DH system improvements in line with the Bank's Performance Requirements. The ESAP will be agreed with the Company prior to the Project approval. The PIS Consultant will assist with the ESAP implementation, and the LM Consultant will provide an independent oversight and monitoring of the works contract. The Project will be monitored through annual E&S reports provided by the Company and site visits, if deemed necessary.

## **6.2 INTEGRITY**

In conjunction with OCCO, integrity due diligence was undertaken on the Company, its management and the other relevant counterparties. [REDACTED]

All actions required by applicable EBRD procedures relevant to the prevention of money laundering, terrorist financing and other integrity issues have been taken with respect to the Project, and the Project files contain the integrity checklists and other required documentation which have been properly and accurately completed to proceed with the Project.

### **6.3 CONCESSIONAL FINANCE**

The investment will be co-financed by the EU NIP grant of up to EUR 24.5 million and the E5P grant of up to EUR 15 million. Use of concessional finance will help to improve energy efficiency and the Project's affordability. [REDACTED] The investment grants will also ensure that the Project benefits an increased number of residents, as it will create incentives for households to connect to centralized DH system through improved quality and affordability of DH services. It will also improve energy security of Moldova by reducing reliance on imported gas and electricity.

### **6.4 AFFORDABILITY ANALYSIS**

[REDACTED] With the proposed Project, it is anticipated that tariffs will remain affordable, posing no affordability constraints on average households. [REDACTED]

Moldova provides direct support to vulnerable consumers through a national compensation scheme. This initiative offers a fixed contribution toward energy bills for vulnerable households, irrespective of their energy consumption levels. [REDACTED] This support is crucial in mitigating financial hardship and ensuring access to essential heating services for vulnerable populations. Implementation of the Project will enhance the affordability of DH tariffs, supported by substantial financial benefits that far exceed debt service obligations throughout the loan repayment period.

**ANNEXES TO OPERATION REPORT**

ANNEX 1	GREEN ASSESSMENTS
ANNEX 2	PROJECT IMPLEMENTATION



## ANNEX 1 – GREEN ASSESSMENTS

### SUMMARY

The Project is intended to address legacy infrastructure issues in the City's DH system, reduce fuel consumption and promote the system's decarbonisation through improved system control and introduction of apartment level consumption-based billing to DH consumers. The Project focuses on the refurbishment of the current network infrastructure and demand-side measures including metering domestic hot water metering system. [REDACTED] The Project is determined **aligned with both mitigation and adaptation goals of the Paris Agreement**.

- The Project is attributed **100% GET climate** (mitigation).
- The Project has a **CT score of 2** and **PC score of 3**.
- The Project is **eligible for EBRD Green Cities** and is a **follow-on investment** to **Chisinau GCAP**.

### PARIS ALIGNMENT ASSESSMENT

#### Alignment with the mitigation goals of Paris Agreement

The Project is determined as **aligned** with the mitigation goals of the Paris Agreement based on the application of the Bank's Paris alignment approach for direct finance.

- There are **no** activities included in the 'non-aligned list'.
- Applicable specific conditions associated with the 'aligned' project/economic activity have been met:
  - The Project comprises of investments in demand-side measures at buildings or facilities connected to the district energy network. It does not include investments in a part of the network directly connecting coal, oil or peat-fired energy generation to the main network.
  - The country's DH infrastructure covers 60 per cent of the population. However, a significant portion of the current DH systems in Moldova are old and inefficient, leading to high energy losses, frequent breakdowns and poor quality of heat supply. Therefore, Moldova has significant potential to apply efficient DH and cooling systems and the government has launched several initiatives to improve the efficiency and reliability of the country's DH systems. Moldova's National Energy and Climate Plan ("NECP") clearly states that "reducing energy losses in district heating systems and electricity and gas transmission and distribution networks is a priority" and the Project is well aligned with this goal as well as the Plan overall.
  - The scope of the Project meets the EU Taxonomy criteria for a substantial contribution to climate change mitigation outlined under "District Heating/cooling distribution" for the scope related to network replacement and pumping stations. The demand-side energy efficiency investment including IHS meets the criteria under "Installation, maintenance and repair of energy efficiency equipment".

#### Alignment with the adaptation goals of Paris Agreement

The Project is determined as aligned with the adaptation goals of the Paris Agreement as it satisfies all three steps of the assessment.

### GET ATTRIBUTION

The Project is attributed 100 per cent GET. This share has been calculated in line with GET Handbook Annex 2 - 2.11 - 'Brownfield efficiency improvement or reduction of CO<sub>2</sub> emissions in transmission or distribution of electricity, heat, cold, low-carbon gases or CO<sub>2</sub>' and 2.12 'Activities targeting customers of energy systems that support a reduction in consumption or enhanced uptake of renewable energy'.

The Project demonstrates a substantial improvement in energy efficiency in the district heating network. The expected impacts of the transaction include primary energy savings of 827,355

GJ/year which results in GHG emission savings of 40,824 tCO<sub>2</sub>/year. The emissions savings derive mainly from the reduction of natural gas consumption in the CHP units and heating only boilers following energy efficiency investment in the network. Further emission reduction is due to the improved pumping efficiency and DHW investment as well as other efficiency related investment reducing electricity consumption in the network. By significantly reducing demand-side related emissions in the network, the Project with all its use of proceeds (including the design, construction supervision, PIU staffing and Special Account audit costs) qualifies for 100 per cent GET mitigation (energy) finance.

The Project is expected to decrease thermal demand by 20 per cent. As this thermal demand is expected to be produced by the same generating sources, these reductions can be assumed analogous to energy efficiency. The Project is thus assessed as eligible for EBRD Green Cities.

In addition to the decarbonisation efforts on the demand side, the Government and the Company are actively working to modernize and decarbonise the DH generation assets and the associated network. [REDACTED] Moldova's NECP, on the other hand, targets the increased deployment of Renewable Energy Sources ("RES") within the DH network, with a goal of raising the share of RES in generation by 1.1 per cent annually between 2025 and 2030. Additionally, the NECP emphasizes the utilisation of waste heat within the DH network and on-going modernisation efforts to enhance overall efficiency.

[REDACTED]

**ANNEX 2 – PROJECT IMPLEMENTATION****Procurement classification – *Public sovereign***

[REDACTED]

This is the first EBRD transaction with the Company as a direct beneficiary. At the time of the Project approval, the PIU has not yet been established and therefore its capacity to manage procurement cannot be assessed. [REDACTED] In order to mitigate these, the Project envisages financing of individual consultants to support the Company and act as the PIU. In addition, the PIU will be further supported by the PIS Consultant.

The Project will be comprised of the procurement of works (modernisation of heating networks - primary and horizontal, pumping stations, IHS, pilot projects focused on energy efficiency measures in residential buildings) and consultancy services (PIU consultants, PIS consultant, LM consultant, PS consultant, Technical Design consultants, Supervision Engineer consultants and CDP consultant). These are relatively common works and consultancy services. Hence, there are no specific associated risks perceived in relation to the procurement and implementation of these contracts. The only risk might be the capacity to attract international players and their ability to find qualified local subcontractors. Such risk shall be mitigated by the PIS Consultant market outreach and eventually revised procurement strategy.

**Project implementation arrangements:**

The PIU, dedicated to the implementation of the Project, will be established within the Company. It will be supported by the PIS Consultant who will be responsible for the day-to-day implementation of the Project. Additionally, for all works contracts there will be independent Supervision Engineers.

Moreover, the Bank will appoint the LM Consultant that will oversee through regular site visits the implementation of each contract financed under the Project.

**Procurement arrangements:**

The Project is classified as a public sector operation for procurement purposes.

[REDACTED]

All contracts financed under the Project (from the Banks loan and investment grants) will be procured in accordance with Article 3 of PP&R and EBRD standard procurement documents will be used. All contracts shall be subject to prior review.

**Additional Information**

The Bank will provide to the Company the services of the PS Consultant to assist with the procurement of the PIS Consultant and the Technical Design consultants.

[REDACTED]

PUBLIC