PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Report No.: PIDC632

Project Name	District Heating Efficiency Improvement Project (P132443)
Region	EUROPE AND CENTRAL ASIA
Country	Moldova
Sector(s)	Energy efficiency in Heat and Power (40%), Public administration- Energy and mining (40%), Thermal Power Generation (20%)
Lending Instrument	Specific Investment Loan
Project ID	P132443
Borrower(s)	Ministry of Economy
Implementing Agency	Moldova Energy Projects Implementation Unit (MEPIU), Termocom, CHP-1, CHP-2
Environmental Category	B-Partial Assessment
Date PID Prepared/ Updated	31-Jan-2013
Date PID Approved/ Disclosed	01-Feb-2013
Estimated Date of Appraisal Completion	13-Dec-2013
Estimated Date of Board Approval	25-Mar-2014
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

Moldova’s economy has recovered from the global financial and economic crisis of 2008-2009. In 2010-11, economic growth was primarily driven by domestic demand, remittances, credit, and external capital flows, and in 2011, by exports of agricultural and industrial products, spurred by the bounce back of external demand. Real GDP grew by 6.4 percent in 2011, and the poverty rate reduced to 21.9 percent in 2010. This was largely due to the swift implementation of corrective measures by the coalition government, which took office in September 2009.

However, growth rates have slowed considerably in 2012 due to prolonged Eurozone recession. The GDP has decelerated to 0.8 percent in the first half of 2012 and is projected at about 0 percent for the entire year. The decrease in real growth is attributed to the fall in demand for Moldovan products both domestically and in the EU, as well as to the significant increase in energy prices. The current account deficit widened to 12.5 percent by end-2011 and remains to date in double digits.

The situation was also perpetuated by a prolonged political crisis, with the coalition government failing to come to an agreement on the selection of the President until March 2012.

Improving energy efficiency and ensuring energy supply security are critical factors in enhancing Moldova's economic competitiveness, and one of the main pillars of the National Development Strategy. The cost of energy supply is a significant portion of the current account deficit. In 2010, the energy import bill accounted for about US$960 million, which is equivalent to 25 percent of total imports and 17 percent of GDP. Energy utilities including Termocom, the district heating company in Chisinau, and combined heat and power plants (CHPs), consume a substantial portion of total energy imports. The debt accumulated by Termocom led to the gas cut-off in 2008 (see sectoral background) and exposed Moldova's vulnerabilities in energy supply.

Sectoral and Institutional Context

The dependence on energy imports exposes Moldova to an energy supply security risk and negative impact on its current account deficits. In 2011, 97 percent of total primary energy needs were met by imports. Total primary energy supply (TPES) was about 2.45 Mtoe in 2009. Natural gas dominates the primary energy balance at 64 percent of TPES. Total fuel consumption (TFC) in 2010 was 2.2 Mtoe, the residential sector having the largest share of 31 percent. Agriculture's share dropped precipitously to 2 percent, along with the decline in production and export of food and agricultural products. Industry, the construction sector, and transport's share of TFC remained relatively modest, between 5 percent and 16 percent (compared to 40 percent of TFC in Ukraine and Romania).

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Inefficient energy use in Moldova is leading to a higher energy cost for both industries and residents, posing a serious bottleneck to growth and competitiveness. Despite the fact that energy intensity was almost halved since 1990 due to the decline of industry, Moldova remains to be one of the most energy intensive economies in the region. In 2009, it stood at 1.24 toe per thousand US$ of GDP (in 2000). Measured at purchasing power parity (PPP), energy intensity was 0.28 toe per thousand US$ of GDP (PPP year 2000), which is about two times the energy intensity of Romania and almost three times the energy intensity of EU-27. On the other hand, per capita energy consumption in Moldova is 0.68 toe, significantly below that of Romania (1.60 toe per capita) and of EU-27 (3.31 toe per capita), which indicates that there is room for further growth in energy consumption.

The high cost of energy supply due to inefficiencies caused by deteriorating and obsolete infrastructure poses a threat to the welfare of the vulnerable population in Moldova, as well. In a study commissioned by the World Bank, the affordability of energy has emerged as a major concern. Surveys showed that energy expenses have taken up more than 10 percent of income for all income quintiles except for the highest income group. The obsolete infrastructure due to lack of resources also meant poor quality of district heating (DH) services and has led to substantial disconnections from the centralized system by the wealthy residents of Chisinau, who can afford to install individual boilers in their own buildings. Though the rate of disconnections has subsided, the current consumers of centralized heating are disproportionately lower-income residents who have no other options for heating. Earlier studies have shown that disruption in DH services will leave about 40 percent of current consumers of DH, or about 160,000 residents, with no alternative for heating. Increasing the efficiency of heat generation and delivery would therefore not only contribute to increasing energy security, but also have a strong positive impact on the welfare of the vulnerable population in Moldova.

Termocom's below-cost heating tariff, established by the municipal executive, has made new investments unaffordable, causing the deterioration of the asset base and leading to the accumulation of debt stock to Moldovagaz. Termocom is financially bankrupt and was under bankruptcy procedures from 2001 to 2009. Termocom has been generating the cash flow required for operations by accumulating payables to CHPs, its suppliers of heat. The CHPs managed their own cash flow by passing on the financial burden to Moldovagaz (jointly owned by the Government of Moldova and Gazprom). The debt stock to Moldovagaz accumulated to about US$250 million or 3.5 percent of GDP. In November 2008, Moldovagaz halted gas supply to Moldova due to the inability of Termocom to pay for the natural gas supplied. As part of the reform efforts, the accumulation of payables was stopped as tariff setting authority for Termocom was transferred from the municipality to an independent regulator, ANRE, which raised the DH tariffs to a cost recovery level.

The World Bank has been working with the Government of Moldova (GoM) to find solutions to these issues and important steps have been taken recently as a result of this collaboration. In 2009, a policy note was issued, identifying the key issues and recommending actions to address them. Further assistance was provided by the World Bank in formulating a comprehensive strategy, including private sector participation. The Chisinau Heat and Electricity Supply Institutional and Financial Restructuring report was delivered in October 2011, funded by a Swedish trust fund. Based on the studies and input provided, the Government issued a Cabinet decision in November 2011 providing for: (i) a vertical integration of Termocom and CHPs, including creating a new corporate management; and (ii) preparation of a debt restructuring plan with Moldovagaz. In September 2012, the Municipal Council (owner of Termocom) approved the Corporate and Financial Restructuring Strategy adopted by the cabinet, as well. With the consensus reached by all major stakeholders on the way forward, the Government has requested support to form a new integrated district heating company. Upon formation of a new integrated company, a strong corporate governance structure is not only required to ensure a sustainable operation of the company, but also to attract the necessary foreign and private sector investments. Several development and financial partners have already expressed such interest, once urgent investments are addressed, debt restructuring is agreed, and an effective governance structure is in place.

Relationship to CAS

The proposed Project would help achieve the strategic objectives of the current Country Partnership Strategy with Moldova (CPS, January 29, 2009), as well as those of the new CPS for FY14-17, which is under development and expected to be presented to the Board of Executive Directors on May 16, 2013. The Project will contribute to achieving the following strategic objectives identified under the current CPS; (i) improving economic competitiveness, (ii) improving public sector governance, and (iii) minimizing social and environmental risks. The Project also supports the objectives identified under the three main pillars of the CPS for FY14-17, specifically Pillar 3 "Supporting a Green, Clean and Resilient Moldova" and Pillar 1 "Increasing Competitiveness". The IDA allocation to this Project is already included in the draft CPS for FY14-17 under preparation.

The proposed Project is supported by Technical Assistance (TA) under implementation. The objective of the Energy Sector Reform and Efficiency Improvement (ESREI) program, funded by Sweden, is to: (a) provide guidance on improving the efficiency of the DH sector and debt restructuring options, (b) identify demand-side priority investments in the DH system in Chisinau, and (c) provide financial engineering, corporate structuring and legal document support to ensure that the restructuring would result in a financially viable and sustainable energy company. A study to identify, assess and prepare bidding documents for the necessary investments to improve efficiency and quality of heating is now underway for Component 1. For Component 2, a consultancy assignment is being prepared to support the Government in the corporate merger process and the structuring of a debt repayment plan to be supported under this Project. The assignment will provide direct input to the Working Group established by the GoM to structure the new Integrated company (merger between Termocom and CHPs) and provide a proposal for the debt restructuring plan with Moldovagaz, including a funding strategy.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The objective of the proposed project is to improve the operational efficiency and financial viability of the district heating (DH) sector in Chisinau.

Key Results (From PCN)

- Creation of the integrated company between Termocom, CHP-1 and CHP-2,
- Number of beneficiaries (disaggregate for female beneficiaries) of higher quality DH services,
- Debt restructuring plan agreed and signed with Moldodvagaz.

III. Preliminary Description

Concept Description

The Project, proposed to be financed by an International Development Association (IDA) Credit of US$20 million and an IDA or IBRD Partial Credit Guarantee of US$40 million, would comprise three components:

Component 1: Priority investments in the DH system to improve energy efficiency, quality and affordability of heat supply (IDA Credit: US$19 million). This component will support priority investments aimed at optimizing and modernizing the heat distribution network, with the objective to reduce heat losses, improve service quality and reduce the cost of supply. The investments proposed under the Project would focus on ensuring the sustainability of Termocom, as well as improving the efficiency of its operations. Specifically, financing would be provided for: (i) modernization of selected pumping stations to reduce energy consumption and provide for automated control of the flow of heat; (ii) rehabilitate selected segments of the distribution network that are operating well beyond their design life, negatively impacting both the quality and cost of heat supply; (iii) replace centralized heating stations (CHSs) with individual heating stations (IHSs) for more efficient and affordable heat supply to end users and a decrease in energy needs. The investments and the related bidding documents are currently being prepared by consultants funded by a Swedish trust fund.

Component 2: Debt restructuring and financing of debt repayment (IDA or IBRD Partial Credit Guarantee: US$40 million, IDA allocation: US$10 million). This component will support the Government in preparing a debt restructuring plan and provide a guarantee for credit enhancement on Moldova Sovereign or new integrated company borrowing. This credit enhancement will assist in raising commercial financing on terms that would allow repayment of the debt stock on a sustainable, long-term basis and limit the financial burden of the restructuring on Chisinau residents and Moldova. For a new entity such as the integrated company, a structured Partial Credit

Guarantee (PCG) from the World Bank would also help it start establishing credit track record on the loan and capital markets, while leveraging World Bank resources to Moldova. The PCG provides for risk sharing with the market while offering comprehensive risk cover for a specified component of the financing. Depending on market conditions, a PCG cover of 30-50 percent of debt service cash flows (principal + interest) may be sufficient to considerably improve the available financing terms. This means that a US$10 million tranche of World Bank funding used as a US$40 million PCG could help raise US$80-120 million of financing from commercial sources.

Component 3: Project Management (IDA Credit: US$1 million). This component would provide technical and financial support for project management. The implementation agency for the proposed Project would be the Ministry of Economy (MoE). The Moldovan Energy Projects Implementation Unit (MEPIU), which is directly subordinated to MoE, has more than 10 years of experience in implementing World Bank projects, and will serve as a fiduciary agent for the implementing agency. This component would finance activities such as: (i) MEPIU staff and operations, including Monitoring and Evaluation activities; (ii) public awareness campaigns about the benefits of energy efficiency improvements and efficiently operating DH systems; and (iii) capacity building and training programs, in particular for the MoE in order to ensure long term sustainability in implementing public programs in the energy sector. The MEPIU will also monitor a gender indicator, including the number of female beneficiaries of the improved DH sector.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	**Yes**	**No**	**TBD**
Environmental Assessment OP/BP 4.01	✕		
Natural Habitats OP/BP 4.04		✕	
Forests OP/BP 4.36		✕	
Pest Management OP 4.09		✕	
Physical Cultural Resources OP/BP 4.11			✕
Indigenous Peoples OP/BP 4.10		✕	
Involuntary Resettlement OP/BP 4.12			✕
Safety of Dams OP/BP 4.37		✕	
Projects on International Waterways OP/BP 7.50		✕	
Projects in Disputed Areas OP/BP 7.60		✕	

V. Tentative financing

Financing Source	**Amount**
BORROWER/RECIPIENT	150.00
International Development Association (IDA)	20.00
IDA Guarantee	40.00
Foreign Private Commercial Sources (unidentifie	160.00
Total	370.00

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