The World BankMoldova Power System Development Project (P160829)

REPORT NO.: RES60167

RESTRUCTURING PAPER

ON A

PROPOSED PROJECT RESTRUCTURING

OF

THE MOLDOVA POWER SYSTEM DEVELOPMENT PROJECT

APPROVED ON MAY 8, 2019

TO

THE REPUBLIC OF MOLDOVA

Energy and Extractives Global Practice

Europe and Central Asia Region

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ABBREVIATIONS AND ACRONYMS

ANRE	National Energy Degulatory Agency						
	National Energy Regulatory Agency						
BtB	Back-to-Back station						
CCS	Climate Change Screening						
CDC	Central Dispatch Center						
DC	Direct Current						
EBRD	European Bank for Reconstruction and Development						
EC	European Commission						
ECAPDEV	Europe and Central Asia Capacity Development Trust Fund						
EIB	European Investment Bank						
EnC	Energy Community						
ESIA	Environmental and Social Impact Assessment						
ESMP	Environmental and Social Management Plan						
EU	European Union						
FS	Feasibility Study						
GDP	Gross Domestic Product						
GoM	Government of Moldova						
GRM	Grievance Redress Mechanism						
GWh	Giga Watt Hour						
HVDC	High Voltage Direct Current						
HVL	High Voltage Line						
IEM	Internal Energy Market						
IDA	International Development Association						
IP	Implementation Progress						
IPS/UPS	Integrated Power System (Ukraine, Kazakhstan, Kyrgyzstan, Belarus, Azerbaijan, Tajikistan, Georgia, Moldova and Mongolia)/Unified Power System (Russia)						
LACF	Land Acquisition and Compensation Framework						
MD	Moldova						
ME	Moldelectrica						
MEPIU	Moldova Energy Projects Implementation Unit						
MGRES	Moldavskaya GRES						
MMS	Meter Management System						
MoE	Ministry of Energy						
MW	Megawatt						
MS	Moderately Satisfactory						
NTC	Net Transmission Capacity						
OHTL	Overhead Transmission Line						
PDO	Project Development Objective						
PowerSAP	Power Sector Reform Action Plan						
RAP	Resettlement Action Plan						
SCADA	Supervisory Control and Data Acquisition System						
SIMC	Social Impact Monitoring Committee						
SS	Substation						
	Jubitation						

BASIC DATA

Product Information

Project ID	Financing Instrument		
P160829	Investment Project Financing		
Original EA Category	Current EA Category		
Full Assessment (A)	Full Assessment (A)		
Approval Date	Current Closing Date		
08-May-2019	31-Aug-2024		

Organizations

Borrower	Responsible Agency
Republic of Moldova	

Project Development Objective (PDO)

Original PDO

The Project Development Objective is to increase capacity and improve reliability of the power transmission system in Moldova.

Summary Status of Financing (US\$, Millions)

Ln/Cr/Tf	Approval	Signing	Effectiveness	Closing	Net Commitment	Disbursed	Undisbursed
IDA-63800	08-May-2019	26-Sep-2019	24-Mar-2020	31-Aug-2024	55.00	3.44	48.26
IDA-63810	08-May-2019	26-Sep-2019	24-Mar-2020	31-Aug-2024	15.00	11.31	3.08

Policy Waiver(s)

Does this restructuring trigger the need for any policy waiver(s)?

No

I. PROJECT STATUS AND RATIONALE FOR RESTRUCTURING

Project Status

- 1. This restructuring seeks to update key aspects of the Power System Development Project (PSDP, P160829) specifically: (i) extend the project's closing date by 22 months from August 31, 2024, to June 30, 2026, and (ii) update the results framework to reflect the extension. This will be the first restructuring of the project.
- 2. The unprecedented rise in energy prices and high uncertainty in energy supplies following Russia's invasion of Ukraine has highlighted the need for Moldova to foster an energy sector transition and energy security. Moldova is one of the most vulnerable countries in Europe in terms of security of energy supply and energy prices with nearly 100 percent of coal, gas, and oil products imported. The lack of system flexibility and energy storage capacity remains a major barrier to scaling up domestic power generation (incl. renewables). The recent energy crisis has therefore further heightened the strategic relevance of the PSDP, as the Project would, in addition to increasing the capacity and improving the reliability of the power transmission grid in Moldova, also allow critical connectivity with European power systems at infrastructure, institutional and power market level, thereby improving energy security.
- 3. The financing for PSDP was approved on May 8, 2019, and became effective on March 24, 2020. The project is financed from two IDA sources: the IDA PBA National Credit (No. 6380-MD) of EUR 47.9 million, and the IDA Scale-up Facility Credit (No. 6381-MD) of EUR 13.1 million. The Project Development Objective (PDO) is to increase the capacity and improve the reliability of the power transmission system in Moldova. The project supports the country's strategic investments in establishing electricity transmission from the capital city of Chisinau to the southern city of Vulcanesti, where the transmission network connects to European power systems through Romania.

- 4. The project comprises four components: (a) Component 1: Construction of the 400 kV Vulcanesti-Chisinau overhead transmission line (OHTL, US\$46.5 million); (b) Component 2: Extension of two existing substations (SSs) (US\$13.8 million); (c) Component 3: Strengthening of the power dispatch and metering system (US\$7.2 million); and (d) Component 4: Technical Assistance and Project Management (US\$2.5 million). Further details on each component are provided below.
- 5. The project has been rated as Satisfactory¹ for both PDO and implementation progress (IP) ratings since March 2022, when the rating was upgraded from Moderately Satisfactory (MS). The previous MS rating was attributed to the initial delay in major procurement packages. Currently, the project is in an active implementation stage, with the project's major contracts A1 "New 400 kV Vulcanesti-Chisinau single circuit OHTL" worth EUR 27.2 million and A2 "Upgrade of 330kV Chisinau Substation" worth EUR 13.4 million, along with other smaller contracts under components 1 and 2, progressing with EUR 52 million committed.² There is no outstanding audit for the project.
- 6. Construction works for Package A1 commenced in April 2024, with advancements in foundations and tower constructions. The Resettlement Action Plan (RAP) preparation and implementation processes took longer and have delayed construction work for the OHTL under Package 1. For the timely and quality completion of the package, the World Bank and MEPIU are implementing various measures to ensure proper implementation of the RAP, particularly on land compensations.
- 7. For Package A2, the most time-consuming equipment, 440/330kV autotransformers, has been delivered, and other ancillary equipment is also being shipped or delivered.
- 8. Package A3 "Extension of 400kV Vulcanesti substation" was re-tendered in May 2024, after an unsuccessful first bidding round due to restrictive requirements. The tender had been delayed due to a change of design required following the Government of Moldova (GoM) decision to synchronize with the European power grid ENTSO-E. The GoM originally planned to build the Moldova-Romania Back-to-Back (BtB) station with financing from the European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB) and European Union (EU) but the investment became technically and economically unnecessary given after the Moldovan and Ukrainian power systems became synchronous with ENTSO-E power systems in March 2022. The GoM decided on the cancellation of the BtB investment in October 2022. The design of Package A3 had to be adjusted accordingly.
- 9. Under Component 3, consultancy for detailed design for Moldelectrica's Headquarters building will be conducted under Package A4.1, serving as groundwork for work package A4. Tenders for Package 6 Upgrade of Meter Management System and Package 16 for Electricity Market Management Platform have been delayed in order to meet ENTSO-E requirements and will be launched in January 2025 and July 2024 respectively after relevant market rules are amended. Under Component 4, consulting services for developing site-specific Environmental and Social Impact Assessment / Environmental and Social Management Plan (ESIA/ESMP) and Avian Risk Assessment under Packages A13.1, A13.2, and A14 are completed.
- 10. Completion of Package A3, which is not feasible within the current project closing date, is crucial to enable the 400kV Vulcanesti-Chisinau OHTL to be operational and thus the PDO to be achieved.

Rationale for Restructuring

¹ Implementation Status and Results Report dated April 2, 2024.

² This represents 85.25 percent of total financing.

- 11. The project's closing date needs to be extended by 22 months, from August 31, 2024, to June 30, 2026, to fully complete the project's main investments: the 400kV Vulcanesti-Chisinau OHTL (package A1; expected completion December 2025), upgrade of the 330kV Chisinau substation (package A2; expected completion October 2024), and extension of the 400kV Vulcanesti substation (package A3; expected completion June 2026). The design, procurement, and contract implementation of Package A1 have been delayed as it took more time to complete the RAP and the OHTL design also had to be adjusted based on GoM's decision to cancel the BtB. The main determining factor for the extension is the timeline required for implementation of investments of Package A3, which was launched only after the GoM's decision made in October 2022. Without this extension, the Vulcanesti substation contract (Package A3) will not be completed by the current closing date and thus the PDO would not be met as the OHTL will not be operational without the substation extension. With the closing date extension, other remaining packages will be completed including investment into upgrade of Meter Management System and establishment of Electricity Market Management Platform,³ except Package A4 "Construction of a new headquarters building for Moldelectrica", which might extend beyond the revised closing date.⁴ For the latter package, Moldelectrica (ME) has confirmed that the remaining expenses would be financed from ME's own funds and this package does not affect the achievement of the PDO.
- 12. The proposed closing date extension meets the requirements of the World Bank Investment Project Financing (IPF) Directive regarding extension of closing dates, specifically: (i) the PDOs remain achievable, and the performance of the Borrower remains satisfactory; (ii) the World Bank and the Borrower agreed on actions that will be undertaken to complete project critical activities; and (iii) there are no outstanding audit reports or audit reports which are not satisfactory to the World Bank. The project remains of strategic importance and relevance to the GoM. In this context, the GoM in its letter No. 11/2-7/2 dated June 10, 2024, requested that the World Bank consider the above-mentioned restructuring.

II. DESCRIPTION OF PROPOSED CHANGES

- 13. The proposed restructuring includes: (i) extension of the project's closing date; (ii) changes to the project's results framework; and (iii) changes to implementation schedule.
- 14. **Extension of Closing Date.** The closing date of IDA Credit No. 6380-MD and IDA No. 6381-MD will be extended from August 31, 2024, to June 30, 2026.
- 15. **Change to the Results Framework.** The target dates for the other PDO indicators and intermediate results indicators in the results framework will be revised to reflect the project's new proposed closing date of June 30, 2026.
- **16. Implementation Schedule.** The implementation schedule has been revised to reflect the proposed extension of the closing date. An updated schedule is presented in Annex.

³ Those packages are important to achieve PDO given those contribution to improving reliability of the power transmission system.

⁴ Expected completion is end of December 2026.

III. SUMMARY OF CHANGES Changed **Not Changed Results Framework** ✓ Loan Closing Date(s) Implementation Schedule ✓ Implementing Agency ✓ **DDO Status Project's Development Objectives PBCs Components and Cost Cancellations Proposed** Reallocation between Disbursement Categories **Disbursements Arrangements Disbursement Estimates Overall Risk Rating** Safeguard Policies Triggered **EA** category **Legal Covenants Institutional Arrangements** Financial Management ✓ Procurement ✓ Other Change(s) **Economic and Financial Analysis Technical Analysis Social Analysis**

IV. DETAILED CHANGE(S)

Environmental Analysis

LOAN	CLOSING	DATE(S)	
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Ln/Cr/Tf	Status	Original Closing	Revised Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
IDA-63800	Effective	31-Aug-2024		30-Jun-2026	31-Oct-2026
IDA-63810	Effective	31-Aug-2024		30-Jun-2026	31-Oct-2026

Results framework

COUNTRY: Moldova Moldova Power System Development Project

Project Development Objectives(s)

The Project Development Objective is to increase capacity and improve reliability of the power transmission system in Moldova.

Project Development Objective Indicators by Objectives/ Outcomes

Indicator Name	PBC	Baseline	End Target		
Increased transmission capacity along the Vulcanesti-Chisinau corridor					
Increased transmission capacity along the Vulcanesti-Chisinau corridor (Kilovolt-Amphere(KVA))		0.00	900,000.00		
Action: This indicator has been Revised					
Reduced number of interruptions between Vulcanesti SS and Chisinau SS (Number)		5.00	1.00		
Action: This indicator has been Revised					

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	End Target	
Component 1: Construction of the 400 kV Vulcanesti-Chisinau overhead transmission line				
Construction of the 400 kV Vulcanesti-Chisinau transmission line (Kilometers)		0.00	158.00	
Action: This indicator has been Revised				

Indicator Name	PBC	Baseline	End Target
Component 2: Extension of two existing substations			
Substation extensions completed (Yes/No)		No	Yes
Action: This indicator has been Revised			
Component 3: Strengthening of power dispatch and metering sy	stem		
SCADA/EMS and MMS upgraded (Yes/No)		No	Yes
Action: This indicator has been Revised			
New ME HQ building completed (Yes/No)		No	Yes
Action: This indicator has been Revised			
Component 4: Technical Assistance and Project Management			
Percentage of women employed by Moldelectrica (percentage) (Percentage)		15.00	16.00
Action: This indicator has been Revised			
Percentage of members in affected communities along the OHTL reporting that their engagement in the public consultations under the project useful and represent their views and preferences (Percentage)		0.00	50.00
Action: This indicator has been Revised			

Annex: Updated Implementation Schedule

