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**LOAN NUMBER 9681-AM**

# **Loan Agreement**

**(Armenia Enabling the Energy Transition Program)**

**between**

**REPUBLIC OF ARMENIA**

**and**

**INTERNATIONAL BANK FOR RECONSTRUCTION  
AND DEVELOPMENT**

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## **LOAN AGREEMENT**

AGREEMENT dated as of the Signature Date between REPUBLIC OF ARMENIA (“Borrower”) and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (“Bank”). The Borrower and the Bank hereby agree as follows:

### **ARTICLE I — GENERAL CONDITIONS; DEFINITIONS**

- 1.01. The General Conditions (as defined in the Appendix to this Agreement) apply to and form part of this Agreement.
- 1.02. Unless the context requires otherwise, the capitalized terms used in this Agreement have the meanings ascribed to them in the General Conditions or in the Appendix to this Agreement.

### **ARTICLE II — LOAN**

- 2.01. The Bank agrees to lend to the Borrower the amount of forty million United States Dollars (\$40,000,000), as such amount may be converted from time to time through a Currency Conversion (“Loan”), to assist in financing the program described in Schedule 1 to this Agreement (“Program”).
- 2.02. The Borrower may withdraw the proceeds of the Loan in accordance with Section IV of Schedule 2 to this Agreement. All withdrawals from the Loan Account shall be deposited by the Bank into an account specified by the Borrower and acceptable to the Bank.
- 2.03. The Front-end Fee is one quarter of one percent (0.25%) of the Loan amount.
- 2.04. The Commitment Charge is one quarter of one percent (0.25%) per annum on the Unwithdrawn Loan Balance.
- 2.05. The interest rate is the Reference Rate plus the Variable Spread; or such rate as may apply following a Conversion; subject to Section 3.02(e) of the General Conditions.
- 2.06. The Payment Dates are January 15 and July 15 in each year.
- 2.07. The principal amount of the Loan shall be repaid in accordance with Schedule 3 to this Agreement.

### **ARTICLE III — PROGRAM**

- 3.01. The Borrower declares its commitment to the objectives of the Program and the MPA Program. To this end, the Borrower shall cause the Program to be carried out by the Program Implementing Entity in accordance with the provisions of

Article V of the General Conditions, Schedule 2 to this Agreement, and the Program Agreement.

#### **ARTICLE IV — REMEDIES OF THE BANK**

- 4.01. The Additional Events of Suspension consist of the following:
- (a) the Program has been modified and/or suspended so as to affect, materially and adversely, in the opinion of the Bank, the ability of the Borrower to achieve the Program objectives; and
  - (b) the Program Implementing Entity's Legislation has been amended, suspended, abrogated, repealed or waived, whether in whole or in part, so as to affect, materially and adversely, in the opinion of the Bank, the ability of the Program Implementing Entity to achieve the objectives of the Program and/or perform its obligations under the Program Agreement.
- 4.02. The Additional Event of Acceleration consists of the following, namely that any event specified in Section 4.01 of this Agreement occurs and is continuing for a period of thirty (30) days after notice of the event has been given by the Bank to the Borrower.

#### **ARTICLE V — EFFECTIVENESS; TERMINATION**

- 5.01. The Additional Conditions of Effectiveness consist of the following, namely, that:
- (a) the Subsidiary Agreement has been duly authorized by, executed and delivered on behalf of the Borrower and the Program Implementing Entity, and is legally binding upon the Borrower and the Program Implementing Entity in accordance with its terms; and
  - (b) the Operations Manual, acceptable to the Bank, has been adopted by the Program Implementing Entity.
- 5.02. The Effectiveness Deadline is the date one hundred and eighty (180) days after the Signature Date.

#### **ARTICLE VI — REPRESENTATIVE; ADDRESSES**

- 6.01. The Borrower's Representative is its Minister of Finance.
- 6.02. For purposes of Section 10.01 of the General Conditions:
- (a) the Borrower's address is:

Ministry of Finance of the Republic of Armenia  
1 Melik-Adamyán St.  
Yerevan 0010  
Republic of Armenia; and

(b) the Borrower's Electronic Address is:

Facsimile:

374-11-800132

6.03. For purposes of Section 10.01 of the General Conditions:

(a) the Bank's address is:

International Bank for Reconstruction and Development  
1818 H Street, N.W.  
Washington, D.C. 20433  
United States of America; and

(b) the Bank's Electronic Address is:

Facsimile:

1-202-477-6391

AGREED as of the Signature Date.

**REPUBLIC OF ARMENIA**

**By**

*Hon. Vahe Hovhannisyán*

**Authorized Representative**

**Name:** Hon. Vahe Hovhannisyán

**Title:** Minister of Finance

**Date:** 08-Aug-2024

**INTERNATIONAL BANK FOR  
RECONSTRUCTION AND DEVELOPMENT**

**By**

*Carolin Geginat*

**Authorized Representative**

**Name:** Carolin Geginat

**Title:** Country Manager Armenia

**Date:** 06-Aug-2024

## SCHEDULE 1

### Program Description

The objectives of the Program are to enable the integration of increased renewable energy capacity into the power transmission grid and enhance the commercial viability of the power transmission company.

The Program constitutes a phase of the MPA Program, and consists of the following activities:

**Results Area 1:**            **Enabling the Integration of Increased Renewable Energy Capacity into the Power Transmission Grid**

Providing support for:

- (a) substation rehabilitation works, including, *inter alia*, the rehabilitation of the existing switchyards, the replacement of transformers, batteries, lubricants, and protection relays, and the renovation of control buildings;
- (b) operational improvements to enhance the efficiency and reliability of the electricity transmission infrastructure, including, *inter alia*, the completion of the implementation of a SCADA communication and automation system to improve remote observability and controllability of the power system; and
- (c) (i) further liberalization of the wholesale electricity market; (ii) periodic updating of the Borrower's ten-year network development plan for the transmission grid; and (iii) the introduction of new energy legislation aligned with CEPA.

**Results Area 2:**            **Enhancing the Commercial Viability of the Power Transmission Company**

Providing support for:

- (a) PSRC in adopting a new tariff methodology that provides power sector SOEs with adequate revenues and improves revenue predictability;
- (b) HVEN in obtaining a credit rating;
- (c) HVEN in executing a pilot commercial financing transactions;
- (d) HVEN in improving its corporate management systems, including through the obtainment of ISO certifications related to good corporate management practices; and

- (e) HVEN in modernizing its corporate governance.

## **SCHEDULE 2**

### **Program Execution**

#### **Section I. Implementation Arrangements**

##### **A. Program Institutions**

1. The Borrower shall, at all times during the implementation of the Program, cause MTAI to be responsible for overall Program coordination and, together with PSRC, be responsible for the relevant policy and regulatory decisions.
2. The Borrower shall maintain, at all times during the implementation of the Program, with a mandate, composition, and resources satisfactory to the Bank, a Technical Working Group, which shall: (a) be chaired by MTAI; (b) consist of all relevant entities; (c) be responsible for Program coordination and facilitation of Program implementation.

##### **B. Subsidiary Agreement**

1. To facilitate the carrying out of the Program, the Borrower shall make the proceeds of the Loan available to the Program Implementing Entity under a subsidiary agreement between the Borrower and the Program Implementing Entity, under terms and conditions approved by the Bank (“Subsidiary Agreement”).
2. The Borrower shall exercise its rights under the Subsidiary Agreement in such manner as to protect the interests of the Borrower and the Bank and to accomplish the purposes of the Loan. Except as the Bank shall otherwise agree, the Borrower shall not assign, amend, abrogate or waive the Subsidiary Agreement or any of its provisions.

##### **C. Program Action Plan**

1. The Borrower shall: (a) cause the Program Action Plan agreed with the Bank to be carried out in accordance with the schedule set out in said Program Action Plan, in a manner satisfactory to the Bank; and (b) maintain policies and procedures adequate to enable it to monitor and evaluate, in a manner and substance satisfactory to the Bank, the implementation of the said Program Action Plan.
2. The Borrower shall not materially and/or substantially amend, revise, waive, abrogate or suspend any provision of the Program Action Plan without the prior written consent of the Bank.



**Section II. Excluded Activities**

1. The Borrower shall ensure that the Program excludes any activities which: in the opinion of the Bank, are likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people; or
2. involve the procurement of: (a) works, estimated to cost one hundred fifteen million Dollars (\$115,000,000) equivalent or more per contract; (b) goods, estimated to cost seventy-five million Dollars (\$75,000,000) equivalent or more per contract; (c) non-consulting services, estimated to cost seventy-five million Dollars (\$75,000,000) equivalent or more per contract; or (d) consulting services, estimated to cost thirty million Dollars (\$30,000,000) equivalent or more per contract.

**Section III. Program Monitoring, Reporting and Evaluation**

The Borrower shall furnish to the Bank each Program Report not later than one (1) month after the end of each calendar semester, covering the calendar semester.

**Section IV. Withdrawal of Loan Proceeds**

**A. General**

1. Without limitation upon the provisions of Article II of the General Conditions and in accordance with the Disbursement and Financial Information Letter, the Borrower may withdraw the proceeds of the Loan to: (a) finance Program Expenditures (inclusive of Taxes), on the basis of the results (“Disbursement Linked Results” or “DLRs”) achieved by the Borrower and/or Program Implementing Entity, as measured against specific indicators (“Disbursement Linked Indicators” or “DLIs”); and (b) pay the Front-end Fee; all as set forth in the table in paragraph 2 of this Part A.
2. The following table specifies each category of withdrawal of the proceeds of the Loan (including the Disbursement Linked Indicators as applicable) (“Category”), the Disbursement Linked Results for each Category (as applicable), and the allocation of the amounts of the Loan to each Category:

<b>Category (including Disbursement Linked Indicator as applicable)</b>	<b>Disbursement Linked Result (as applicable)</b>	<b>Amount of the Loan Allocated (expressed in USD)</b>	<b>Disbursement Calculation Formula (as applicable)</b>
<p>(1) DLI #1: Increase in the percentage of transmission substation capacity equipped with automated control and digital protection systems.</p>	<p>DLR #1: Percentage of transmission substation capacity equipped with automated control and digital protection systems.</p>	<p>12,000,000</p>	<p>USD 211,000 for each percentage point increase from Baseline, of total transmission substation capacity equipped with automated control and digital protection systems, up to the maximum DLI allocation of USD12,000,000. Baseline: 43%.</p>
<p>(2) DLI #2: Increase in the total capacity of transmission substations.</p>	<p>DLR #2: MVA point increase in the total capacity of transmission substations.</p>	<p>12,000,000</p>	<p>USD 31,000 per MVA of transmission substation increase, up to the maximum DLI allocation of USD 12,000,000. Baseline: 2,711 MVA.</p>
<p>(3) DLI #3: Improvements in power system planning, operation, and regulation.</p>	<p>DLR #3.1: EPSO has published the second update of the ten-year network development plan.</p>	<p>300,000</p>	<p>Paid in full upon achievement.</p>

	<p>DLR #3.2: EPSO has published the third update of the ten-year network development plan.</p> <p>DLR #3.3: A new Electricity Law and a new Energy Efficiency and Renewable Energy Law aligned with the CEPA agreement have been submitted to the National Assembly, defining the functions of the TSO and energy storage investment activities in line with EU standards.</p> <p>DLR #3.4: PSRC has: (i) approved minimum operational rules and obligations on network security that are compliant with Directive 2005.89/EC; and (ii) published the criteria relating to the management of imbalances by HVEN in emergency situations.</p>	<p>300,000</p> <p>900,000</p> <p>500,000</p>	
<p>(4) DLI #4: Progress toward electricity market liberalization.</p>	<p>DLR #4.1: PSRC has mandated that large electricity customers connected to 35kV and above must become qualified consumers in the liberalized wholesale market or choose a supplier.</p>	<p>500,000</p>	<p>Paid in full upon achievement.</p>

	<p>DLR #4.2: (i) PSRC has mandated that large electricity customers connected to 6/10kV and above must become qualified consumers in the liberalized wholesale market or choose a supplier; and (ii) PSRC has an adequately staffed and fully operational market monitoring function.</p>	1,000,000	
	<p>DLR #4.3: PSRC has mandated that all large electricity consumers must become qualified consumers in the liberalized wholesale market or choose a supplier, irrespective of the voltage level.</p>	500,000	
	<p>DLR #4.4: HVEN has upgraded the metering infrastructure in the transmission network to allow for accurate metering on an hourly basis of all electricity transmission losses.</p>	500,000	
	<p>DLR #4.5: PSRC has materially reduced the electricity consumption threshold above which large electricity customers must become qualified consumers in the liberalized wholesale</p>	500,000	

	market or choose a supplier.		
(5) DLI #5: Increased mobilization of commercial capital for electricity transmission network infrastructure.	DLR #5.1: HVEN's Board has approved a financing strategy and roadmap for 2024-2030.	1,000,000	Paid in full upon achievement.
	DLR #5.2: (i) HVEN has submitted a tariff application in line with the revised methodology and reflecting adequate staffing, including technical, fiduciary, and environmental and social functions; and (ii) PSRC has adopted a new electricity tariff for HVEN in line with the revised methodology.	2,000,000	
	DLR #5.3: HVEN's corporate code is updated to allow for options to issue debt with adequate credit enhancement and HVEN has obtained a credit rating either for the company or for a specific securitized debt issuance.	1,000,000	
	DLR #5.4: HVEN has piloted a first commercial financing transaction.	1,000,000	
(6) DLI #6: Progress toward the modernization of HVEN's	DLR #6.1: HVEN has obtained certification for compliance with	500,000	Paid in full upon achievement.

<p>corporate management systems.</p>	<p>ISO 9001: 2015 Quality Management.</p> <p>DLR #6.2: HVEN has obtained certification for compliance with ISO 37001: Anti-Bribery Management Systems.</p> <p>DLR #6.3: HVEN has obtained certification for compliance with ISO 27001: Information Security Management Systems.</p> <p>DLR #6:4: HVEN has obtained certification for compliance with ISO 14001: 2015 Environmental Management Systems.</p>	<p>500,000</p> <p>400,000</p> <p>500,000</p>	
<p>(7) DLI #7: Progress toward the modernization of HVEN's corporate governance.</p>	<p>DLR #7.1: The role of the Board in strategy setting, performance objectives and monitoring, management, supervision, and control in HVEN's memorandum and articles of association is compliant with the Borrower's Corporate Governance Code.</p> <p>DLR #7.2: A board audit committee or a combined audit and risk committee is established and staffed with members possessing appropriate skills and experience,</p>	<p>500,000</p> <p>500,000</p>	<p>Paid in full upon achievement.</p>

	<p>and with terms of reference compliant with the Borrower's Corporate Governance Code.</p> <p>DLR #7.3: A board nomination and remuneration committee is established and staffed with members possessing appropriate skills and experience, and with terms of reference compliant with the Borrower's Corporate Governance Code.</p> <p>DLR #7.4: A board investment committee is established and staffed with members possessing appropriate skills and experience and with terms of reference compliant with the Borrower's Corporate Governance Code.</p> <p>DLR #7.5: At least two positions in HVEN's Board are staffed by independent Board members, and at least 30 percent of Board members are female.</p>	<p>500,000</p> <p>500,000</p> <p>2,000,000</p>	
(8) Front-end Fee to be paid pursuant to Section 2.03 of this Agreement in accordance with		100,000	

Section 2.05 (b) of the General Conditions			
<b>TOTAL AMOUNT</b>		<b>40,000,000</b>	

**B. Withdrawal Conditions; Withdrawal Period**

1. Notwithstanding the provisions of Part A of this Section, no withdrawal shall be made:
  - (a) on the basis of DLRs achieved prior to the Signature Date, except that withdrawals up to an aggregate amount not to exceed \$5,321,000 may be made on the basis of DLR #1 and DLR #2 achieved prior to this date but on or after February 3, 2023; and
  - (b) for any DLR under Categories (1) through (7), until and unless the Borrower has furnished evidence satisfactory to the Bank that said DLR has been achieved.
2. Notwithstanding the provisions of Part B.1(b) of this Section, the Borrower may withdraw an amount not to exceed \$6,679,000 as an advance; provided, however, that if the DLRs in the opinion of the Bank, are not achieved (or only partially achieved) by the Closing Date, the Borrower shall refund such advance to the Bank promptly upon notice thereof by the Bank. Except as otherwise agreed with the Borrower, the Bank shall cancel the amount so refunded. Any further withdrawals requested as an advance under any Category shall be permitted only on such terms and conditions as the Bank shall specify by notice to the Borrower.
3. Notwithstanding the provisions of Part B.1(b) of this Section, if any of the DLRs under Category (1), (2), (3), (4), (5), (6) or (7) has not been achieved by the date by which the said DLR is set to be achieved (or such later date as the Bank has established by notice to the Borrower), the Bank may, by notice to the Borrower:
  - (a) authorize the withdrawal of such lesser amount of the unwithdrawn proceeds of the Loan then allocated to said Category which, in the opinion of the Bank, corresponds to the extent of achievement of said DLR, said lesser amount to be calculated in accordance with the formula set out in the table in Section IV.A.2 of this Schedule; (b) reallocate all or a portion of the proceeds of the Loan then allocated to said DLR to any other DLR ; and/or (c) cancel all or a portion of the proceeds of the Loan then allocated to said DLR.
4. The Closing Date is June 30, 2029.



**SCHEDULE 3**

**Commitment-Linked Amortization Repayment Schedule**

The following table sets forth the Principal Payment Dates of the Loan and the percentage of the total principal amount of the Loan payable on each Principal Payment Date (“Installment Share”).

**Level Principal Repayments**

<b>Principal Payment Date</b>	<b>Installment Share</b>
On each January 15 and July 15 Beginning July 15, 2039 Through January 15, 2049	5%

## APPENDIX

### Definitions

1. “Anti-corruption Guidelines” means, for purposes of paragraph 6 of the Appendix to the General Conditions, the “Guidelines on Preventing and Combating Fraud and Corruption in Program-for-Results Financing,” dated February 1, 2012, and revised July 10, 2015.
2. “Baseline” means, in respect of any DLR, the corresponding figure or percentage set forth in the table in Section IV.A.2 of Schedule 2 to this Agreement.
3. “Board” means HVEN’s Board, established pursuant to the Borrower’s Law on Energy dated March 7, 2001, or any successor thereto.
4. “Category” means a category set forth in the table in Section IV.A.2 of Schedule 2 to this Agreement.
5. “CEPA” means the comprehensive and enhanced partnership agreement between the European Union and the Borrower, effective as of March 2021, which provides a framework for Armenia to, *inter alia*, align its energy sector legislation and regulatory framework with the European Union.
6. “Corporate Governance Code” means the Borrower’s code of corporate governance attached to the resolution N 1769-A of the Government of the Republic of Armenia on December 31, 2010.
7. “Disbursement Linked Indicator” or “DLI” means in respect of a given Category, the indicator related to said Category as set forth in the table in Section IV.A.2 of Schedule 2 to this Agreement.
8. “Disbursement Linked Result” or “DLR” means in respect of a given Category, the result under said Category as set forth in the table in Section IV.A.2 of Schedule 2 to this Agreement, on the basis of the achievement of which, the amount of the Loan allocated to said result may be withdrawn in accordance with the provisions of said Section IV.
9. “EPSO” or “Electric Power System Operator” means a state-owned company of the Borrower, established pursuant to Decision No. 779-A of the Government of the Republic of Armenia, dated May 2, 2003, or any successor thereto.
10. “Formula” means the measure for calculating disbursement against DLRs, as determined by the Bank in accordance with the table in Section IV.A.2 of Schedule 2 to this Agreement.

11. “General Conditions” means the “International Bank for Reconstruction and Development General Conditions for IBRD Financing, Program-for-Results Financing”, dated December 14, 2018 (Last revised on July 15, 2023).
12. “HVEN” or “High Voltage Electric Networks” means the Borrower’s closed joint stock company, established pursuant to the Government Decrees No. 450 dated July 20, 1998 and No. 709 dated November 23, 1999 and registered in the State Register of the Republic of Armenia.
13. “Independent Verification Agent” means the third-party entity to be engaged by the Program Implementing Entity pursuant to Section I.B.1 of the Schedule to the Program Agreement.
14. “International Standards Organization” or “ISO” means the international organization established on February 23, 1947, consisting of national standards bodies, for the purposes of developing and publishing a wide-range of standards to enable world trade and cooperation.
15. “ISO 14001: 2015 Environmental Management Systems” means the internationally agreed standard that sets out the requirements for an environmental management system, published in September 2015, as updated.
16. “ISO 27001: Information Security Management Systems” means the internationally agreed standard that sets out the requirements for an effective information security management system, published in October 2022, as updated.
17. “ISO 37001: Anti-Bribery Management Systems” means the internationally agreed standard that sets out the requirements and provides guidance for establishing, implementing, maintaining, reviewing and improving an anti-bribery management system, published on October 2016, as updated.
18. “ISO 9001: 2015 Quality Management” means the internationally agreed standard that sets out requirements for quality management, published on September 2015, as updated.
19. “kV” means kilovolt.
20. “MPA Program” means the multiphase programmatic approach program designed to increase renewable energy capacity in participating countries of the Europe and Central Asia region.
21. “MTAI” or “Ministry of Territorial Administration and Infrastructure” means the Borrower’s ministry responsible for territorial administration and infrastructure, or any successor thereto.

22. "MVA" means megavolt-ampere.
23. "Operations Manual" means the manual to be adopted by the Program Implementing Entity pursuant to Section I.B.2 of the Schedule to the Program Agreement, as such manual may be amended from time to time with prior written agreement of the Bank.
24. "Program Action Plan" means the Borrower's plan dated April 30, 2024 and referred to in Section I.C of Schedule 2 to this Agreement and Section I.B of the Schedule to the Program Agreement, as may be amended from time to time with the agreement of the Bank.
25. "Program Expenditures" means, for purposes of, *inter alia*, Section 2.03 and 7.04 of the General Conditions, those expenditures incurred by the Borrower and/or the Program Implementing Entity under its budget codes (or such other codes as may be notified to the Bank from time to time) and the expenditures financed out of the Loan proceeds, but excluding any expenditures associated with the Excluded Activities.
26. "Program Implementing Entity" means the HVEN.
27. "Program Implementing Entity's Legislation" means the Borrower's legislation related to the establishment and operations of the HVEN, namely the Government Decrees No. 450 dated July 20, 1998 and No. 709 dated November 23, 1999.
28. "PSRC" or "Public Services Regulatory Commission" means the Borrower's regulatory commission established and operational pursuant to the Borrower's law No. HO-18-N dated December 25, 2003, or any successor thereto.
29. "SCADA" means supervisory control and data acquisition.
30. "Signature Date" means the later of the two dates on which the Borrower and the Bank signed this Agreement and such definition applies to all references to "the date of the Loan Agreement" in the General Conditions.
31. "SOEs" means state owned enterprises.
32. "Technical Working Group" means the Borrower's group established on January 11, 2024 pursuant to Section I.A.2 of Schedule 2 to this Agreement.
33. "Verification Protocols" means the Borrower's protocols agreed with the Bank, dated April 30, 2024, and included in the Operations Manual setting forth the actions and mechanisms required for the verification of DLIs/DLRs, and referred to in Section I.B.1(b) of the Schedule to the Program Agreement.