



FAST Report

Project Number: 50146-003
July 2021

Loan and Administration of Loan Electric Networks of Armenia Closed Joint-Stock Company ENA Investment Program Phase 2 (Armenia)

This is an abbreviated version of the document, which excludes information that is subject to exceptions to disclosure set forth in ADB's Access to Information Policy.

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 3 June 2021)

Currency unit	–	dram (AMD)
AMD1.00	=	\$0.00192
\$1.00	=	AMD520.8

ABBREVIATIONS

ADB	–	Asian Development Bank
CJSC	–	closed joint-stock company
COVID-19	–	coronavirus disease
EBRD	–	European Bank for Reconstruction and Development
ENA	–	Electric Networks of Armenia Closed Joint-Stock Company
ESMS	–	environmental and social management system
FAST	–	Faster Approach to Small Nonsovereign Transactions
IFC	–	International Finance Corporation
kV	–	kilovolt
LEAP	–	Leading Asia's Private Infrastructure Fund
OJSC	–	open joint-stock company
PSRC	–	Public Services Regulatory Commission
US	–	United States

NOTES

- (i) The fiscal year (FY) of Electric Networks of Armenia Closed Joint-Stock Company ends on 31 December.
- (ii) In this report, "\$" refers to United States dollars.

Vice-President	Ashok Lavasa, Private Sector Operations and Public–Private Partnerships
Director General	Suzanne Gaboury, Private Sector Operations Department (PSOD)
Deputy Director General	Christopher Thieme, PSOD
Director	Shantanu Chakraborty, Infrastructure Finance Division 1 (PSIF1), PSOD
Team leader	Wolfgang Pocheim, Investment Specialist, PSIF1, PSOD
Project advisor	Haroun Khawaja, Principal Investment Specialist, PSIF1, PSOD
Team members	Genevieve Abel, Principal Transaction Support Specialist, Private Sector Transaction Support Division (PSTS), PSOD
	Askar Abeuov, Senior Investment Officer, PSIF1, PSOD ^a
	Rosana Aglibot-Bado, Senior Investment Officer, Office of the Director General–Risk Analytics Unit, PSOD
	Elizabeth Fiona Alpe, Senior Transaction Support Specialist, PSTS, PSOD
	Narine Avetisyan, Investment Officer, Armenia Resident Mission, Central and West Asia Department
	Pierre Bailet, Principal Counsel, Office of the General Counsel
	Arianne Bianca Juan, Operations Assistant, PSIF1, PSOD
	Manfred Kiefer, Senior Economist, PSTS, PSOD
	Melissa Manguiat, Senior Safeguards Officer, PSTS, PSOD
	Sergey Mokrousov, Investment Specialist, Portfolio Management Division, PSOD
	Raneliza Samiano, Senior Social Development Officer, PSTS, PSOD
	Amanda Satterly, Senior Social Development Specialist (Gender and Development), PSTS, PSOD
	Arman Seissebayev, Investment Specialist, PSIF1, PSOD ^a

^a Outposted to the Kazakhstan Resident Mission.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

CONTENTS

	Page
PROJECT AT A GLANCE	
I. INTRODUCTION	1
II. THE PROJECT	1
A. Project Identification and Description	1
B. Development Impact, Outcome, and Outputs	4
C. Alignment with ADB Strategy and Operations	4
D. Investment Program and Financing Plan	5
E. Implementation Arrangements	5
F. Projected Financial and Economic Performance	6
III. THE ADB ASSISTANCE	7
A. The Assistance	7
B. Value Added by ADB Assistance	7
C. Risks	7
IV. POLICY COMPLIANCE	8
A. Safeguards and Social Dimensions	8
B. Anticorruption Policy	10
C. Investment Limitations	10
D. Assurances	10
V. THE PRESIDENT'S DECISION	10
APPENDIXES	
1. Design and Monitoring Framework	11
2. List of Linked Documents	14

PROJECT AT A GLANCE

1. Basic Data		Project Number: 50146-003	
Project Name	ENA Investment Program Phase 2	Department/Division	PSOD/PSIF1
Country	Armenia, Republic of		
Borrower	Electric Networks of Armenia CJSC		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=50146-003-PortAtaGlance		
2. Sector		ADB Financing (\$ million)	
✓ Energy	Subsector(s) Electricity transmission and distribution		20.00
		Total	20.00
3. Operational Priorities		Climate Change Information	
✓ Accelerating progress in gender equality		GHG reductions (tons per annum)	4,100.000
✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability		Climate Change impact on the Project	Low
✓ Making cities more livable		ADB Financing	
		Adaptation (\$ million)	0.00
		Mitigation (\$ million)	16.04
		Cofinancing	
		Adaptation (\$ million)	0.00
		Mitigation (\$ million)	12.03
Sustainable Development Goals		Gender Equity and Mainstreaming	
SDG 5.c		Effective gender mainstreaming (EGM)	✓
SDG 7.1			
SDG 13.a		Poverty Targeting	
		General Intervention on Poverty	✓
4. Nonsovereign Operation Risk Rating			
Obligor Name		Obligor Risk Rating	Facility Risk Rating
Electric Networks of Armenia CJSC			
5. Safeguard Categorization Environment: B Involuntary Resettlement: C Indigenous Peoples: C			
6. Financing			
Modality and Sources		Amount (\$ million)	
ADB		20.00	
Nonsovereign LIBOR Based Loan (Regular Loan): Ordinary capital resources		20.00	
Cofinancing		85.00	
Leading Asia's Private Infrastructure Fund (LEAP) (Full ADB Administration)		15.00	
Others		70.00	
Others ^a		43.42	
Total		148.42	
Currency of ADB Financing: US Dollar			

^a Derived by deducting ADB financing and Cofinancing from Total Project Cost.

I. INTRODUCTION

1. This is an eligible transaction under the Faster Approach to Small Nonsovereign Transactions (FAST) framework.¹ The transaction involves (i) a loan of up to \$20,000,000; and (ii) administration of a loan of up to \$15,000,000 to be provided by the Leading Asia's Private Infrastructure Fund (LEAP)² to Electric Networks of Armenia Closed Joint-Stock Company (ENA) for the ENA Investment Program Phase 2 in Armenia.

2. The loan will provide long-term financing, not readily available in Armenia, to an existing borrower of the Asian Development Bank (ADB) to further improve the quality and reliability of electricity supply, and to reduce technical and commercial losses in the Armenian electricity distribution network. The financing represents a meaningful engagement by ADB to mitigate climate change and accelerate progress in gender equality in line with Strategy 2030.³

II. THE PROJECT

A. Project Identification and Description

3. **Project identification.** Armenia's energy sector has undergone a series of reforms that have improved the performance of the sector, and energy security remains a priority. With no fossil fuel reserves, Armenia is dependent on imports of natural gas and oil products from the Russian Federation (via Georgia) and Iran. Armenia's electricity generation, transmission, and distribution assets are in poor condition.⁴ The power distribution network has been largely neglected and suffers from the effects of poor construction and irregular maintenance work in the 1990s (post-Soviet era).

4. (Confidential information redacted.)

5. ADB and the European Bank for Reconstruction and Development (EBRD) jointly financed the phase 1 of the investment program, which commenced in 2016 and was successfully completed in 2020.⁵ The investments were focused on upgrading and modernizing the electricity distribution network in the Armenian capital of Yerevan. In 2020, ADB and EBRD jointly supported ENA with a working capital support project⁶ to overcome the challenges caused by the coronavirus disease (COVID-19) pandemic. Phase 2 of the investment program, focusing on Armenia's provinces, started in 2021 and will be completed by 2027. ENA is seeking ADB and EBRD support to finance its funding requirements for 2021 and 2022—the first 2 years of phase 2.

6. **Project design.** Phase 2 of the investment program targets (i) substation modernization and reinforcement, (ii) network expansion and improvement, (iii) installation of automatic metering systems, and (iv) other investments. In 2021 and 2022, the following key components of the project will be financed:

¹ Asian Development Bank (ADB). 2015. *Faster Approach to Small Nonsovereign Transactions*. Manila.

² Financing partner: Japan International Cooperation Agency.

³ ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

⁴ ADB. 2019. *Country Partnership Strategy: Armenia, 2019–2023*. Manila.

⁵ ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Electric Networks of Armenia CJSC for the Distribution Network Rehabilitation, Efficiency Improvement, and Augmentation Project in Armenia*. Manila.

⁶ ADB. 2020. *FAST Report: Loan to Electric Networks of Armenia CJSC for the COVID-19 Working Capital Support Project in Armenia*. Manila.

- (i) **Substation modernization and reinforcement** (Confidential information redacted.) About 30% of total investments will be applied to the reconstruction of the 6/10-kilovolt (kV) and 0.4 kV distribution network. Outdated and depreciated equipment at the substations will be replaced. The accumulated depreciation of existing equipment varies from 70% to 90%. Outdated equipment is hard to repair since spare parts are no longer produced. Malfunctioning equipment can lead to outages. Equipment at single- and double-transformer substations will be replaced and equipped with a remote management system, which will improve the efficiency of grid operation.
- (ii) **Network expansion and improvement** (Confidential information redacted.) ENA receives more than 7,000 applications for new connections annually and, by law, ENA is required to connect all applicants. New connections are expected in Yerevan as well as in other cities.
- (iii) **Installation of automatic metering systems** (Confidential information redacted.) ENA's automatic electricity metering system for the 0.4 kV network will be expanded and improved. Electronic meters will have remote reading capability for all customers. This action is primarily aimed at reducing commercial losses and improving ENA's capability to produce a more accurate energy balance to pinpoint technical losses. Both actions will translate into increased profitability by reducing operating expenses.
- (iv) **Other investments** (Confidential information redacted.) Investments target emergency repairs and renovation of ENA's facilities. ENA will also continue to invest in implementation of International Organization for Standardization (ISO) standards of management and will modernize overall planning and control functions as well as the customer interface.

7. **Gender context.** Although a woman's right to equality in Armenia is enshrined in law, prevailing gender stereotypes continue to limit women, with men strongly perceived as breadwinners and women associated with domestic and childcare tasks.⁷ Women's labor force participation was just 51% in 2019, compared with 71% for men.⁸ Because of occupational gender stereotypes, more than 60% of women work in the lower-salaried sectors of agriculture, education, and health care, which limits Armenia's ability to achieve higher economic growth by diversifying its workforce into higher-value-added professions such as science, information and communication technology, and entrepreneurship. Gender-based violence is also an issue, with 8% of women reporting physical or sexual violence from an intimate partner (footnote 7), while qualitative studies suggest that sexual harassment is an issue for women in the workplace.⁹ As part of the project design, ENA has incorporated several measures to promote gender equality and enhance women's empowerment in its business activities.

8. **Borrower.** ENA is the sole and exclusive licensee for distribution of electricity in Armenia. It is responsible for the maintenance and expansion of the distribution network and is engaged in the purchase and regulated distribution of energy. ENA provides services to about 1 million customers. With 6,825 employees, it is the largest employer in Armenia. ENA owns and operates 8,793 110 kV, 35 kV, and 6/10 kV substations and transformation stations; 261 distribution stations and 31,980 kilometers of overhead distribution lines and underground cables; 193 110 kV transformers; and 382 35 kV transformers.

⁷ ADB. 2019. [Armenia Country Gender Assessment](#). Manila.

⁸ International Labour Organization. [ILOSTAT Database](#) (accessed 29 January 2021).

⁹ Oxygen. 2019. [Road Map for Ensuring Equal Labor Rights for Women and Men in Armenia](#). Yerevan.

9. (Confidential information redacted.)
10. ADB conducted integrity due diligence on ENA, its beneficial owners, managers, and significant contracting entities. (Confidential information redacted.)
11. (Confidential information redacted.)
12. ADB conducted tax integrity due diligence.¹⁰ (Confidential information redacted.)

B. Development Impact, Outcome, and Outputs

13. **Impact.** The project contributes to the government's goals in the energy sector, which focus on improvements in energy efficiency and reliability through reconstruction and modernization of existing power substations, power lines, and other network equipment.¹¹
14. **Outcome.** The outcome will be energy efficiency of electricity distribution in Armenia improved, mainly through distribution loss reduction.¹²
15. **Outputs.** The outputs will be (i) electricity distribution network rehabilitated, (ii) capacity-building opportunities for women increased, (iii) gender inclusiveness of ENA workplace enhanced, and (iv) support for gender-based violence survivors in the community increased.

C. Alignment with ADB Strategy and Operations

16. **Consistency with ADB strategy and country strategy.** The project is consistent with ADB's Strategy 2030 operational priorities (OPs) of making cities more livable (OP 4); tackling climate change,¹³ building climate and disaster resilience, and enhancing environmental sustainability (OP 3); and accelerating progress in gender equality (OP 2) (footnote 3). It also supports the Strategy 2030 objective to expand the role of private sector operations in developing member countries. The project is consistent with ADB's country partnership strategy, 2019–2023 for Armenia (footnote 4) as it supports diversified growth and wider inclusiveness with nonsovereign financing for a priority infrastructure investment in energy.
17. **Consistency with sector strategy and relevant ADB operations.** The project is in line with ADB's Energy Policy, particularly with one of its three pillars—maximizing access to energy for all. The project will support the installation of modern distribution systems to transmit electricity efficiently from generation facilities to consumers, including the upgrading of existing systems to reduce technical losses.¹⁴
18. **Lessons from previous operations.** ENA successfully implemented phase 1 of the investment program, financed by ADB (footnote 5) and, with working capital support provided by ADB (footnote 6), has managed the COVID-19 pandemic well. Given the complexity of ENA's

¹⁰ ADB. 2016. *Anticorruption Policy: Enhancing the Role of the Asian Development Bank in Relation to Tax Integrity*. Manila. Further information is provided in Integrity and Tax Due Diligence (accessible from the list of linked documents in Appendix 2).

¹¹ Government of Armenia. 2014. *Armenia Development Strategy for 2014–2025 (Annex to RA Government Decree # 442-N on 27 March 2014)*. Yerevan.

¹² The design and monitoring framework is in Appendix 1.

¹³ All investments, other than those for new customer connections (Confidential information redacted.) and other investments (Confidential information redacted.), are counted as climate mitigation financing. This represents 80.2% of the total project financing and of ADB's financing.

¹⁴ ADB. 2009. *Energy Policy*. Manila.

operations, ADB has been extensively involved in monitoring the financial and operating performance of ENA and has provided assistance to improve the company's financial monitoring and reporting standards. The environmental and social audit undertaken for phase 1 indicated pending key concerns on ENA's environmental and social performance. Corrective actions and enhancements were agreed especially in terms of capacity building and monitoring to improve implementation of existing environmental and social standards. Lessons from the earlier two loans will help improve ADB's oversight and project performance.

D. Investment Program and Financing Plan

19. (Confidential information redacted.)

20. (Confidential information redacted.)

E. Implementation Arrangements

21. (Confidential information redacted.)

F. Projected Financial and Economic Performance

22. (Confidential information redacted.)

III. THE ADB ASSISTANCE

A. The Assistance

23. ADB's assistance comprises (i) a US dollar loan of up to \$20,000,000 to ENA from ADB's ordinary capital resources; and (ii) administration of a loan of up to \$15,000,000 to be provided by LEAP (Confidential information redacted.)

B. Value Added by ADB Assistance

24. ADB adds value by (i) providing and mobilizing long-term financing that is otherwise unavailable in the market; (ii) continuing to demonstrate confidence in the financial stability of ENA, which forms the foundation of Armenia's energy sector, despite temporary challenges faced by the company because of COVID-19; (iii) improving environmental and social standards; and (iv) significantly advancing gender equality through capacity-building of female students and staff, enhancing the gender inclusiveness of ENA's work environment, and supporting survivors of gender-based violence.

C. Risks

25. (Confidential information redacted.)

26. (Confidential information redacted.)

27. (Confidential information redacted.)

28. (Confidential information redacted.)

29. (Confidential information redacted.)

IV. POLICY COMPLIANCE

A. Safeguards and Social Dimensions

30. In compliance with ADB's Safeguard Policy Statement (2009), ADB has categorized the investment as follows: environment (category B), involuntary resettlement (category C) and indigenous peoples (category C).¹⁵ The Safeguard Policy Statement Requirement 4 for general corporate finance project applies.

31. ADB has undertaken due diligence and reviewed the potential environmental and social impacts of the project and the measures to avoid, minimize, mitigate, and compensate for the adverse impacts in the safeguard reports and plans. A qualified and experienced expert undertook an audit of ENA's corporate environmental and social management system (ESMS) to assess the system and compare the company's past and current environmental and social performance against the objectives, principles, and requirements of ADB's Safeguard Policy Statement. The audit recommended that ENA improves on its phase 1 performance in the following areas: environmental and social measures; institutional capacity; and commitment to manage the project's environmental and social impacts. ENA has committed to undertaking the necessary improvements in these areas.

32. **Environment.** The potential environmental impacts of the phase 2 investment plan are similar to the phase 1 impacts. They are generally site-specific and mostly associated with small-scale rehabilitation and upgrading works in the provinces. The main anticipated impacts are related to occupational and community health and safety, hazardous waste management, and oil leaks from storage tanks and transformers. ENA developed an ISO-certified environmental management system that includes a wide range of environmental, health, and safety subplans and procedures, identified as requirements of the phase 1 corrective actions, and collectively represents ENA's ESMS that aligns with ADB Safeguard Policy Statement requirements. The corporate audit confirmed that the ESMS is still relevant, but opportunities exist for ENA to improve its implementation of the ESMS. ENA's occupational health and safety records indicate that existing arrangements are not sufficient to manage the nature and scale of the occupational health and safety hazards and risks, particularly electrical safety. However, no significant environmental, health, and safety issues resulting from leaks or waste management arose during phase 1.

33. (Confidential information redacted.)

34. **Social.** Similar to the phase 1 loan, no involuntary resettlement impact is expected for phase 2 as project activities will be carried out within the existing footprints or located on government lands, after obtaining necessary clearances and permits. ENA's existing involuntary resettlement management procedure will be enhanced to ensure compliance with ADB requirements in addressing potential involuntary resettlement impacts. The project is not expected to impact on any distinct and vulnerable group of indigenous people as defined under ADB's Safeguard Policy Statement.

¹⁵ ADB. [Safeguard Categories](#).

35. **Environmental and social action plan.**¹⁶ ENA has agreed to implement the corporate audit's recommended actions to ensure compliance with ADB's Safeguard Policy Statement. (Confidential information redacted.)

36. **Effective gender mainstreaming.** ENA had 6,825 staff in 2020 of which 12% were female. ENA has no anti-sexual harassment policy and no human resources policies supporting female staff. Following ADB's Policy on Gender and Development (1998), ENA has incorporated measures to promote gender equality and/or women's empowerment in its business activities. Key features of the gender action plan are as follows: (i) leadership training for female staff; (ii) internships for female students/graduates; (iii) development and implementation of a gender inclusion policy to support the hiring, retention, and promotion of female staff; (iv) development and implementation of an anti-sexual harassment policy; and (v) ENA's customer service centers have publicly available pamphlets or other materials that communicate support services (such as hotlines) for gender-based violence survivors. ENA will submit periodic reports on implementation of gender measures to ADB.

37. ENA will comply with national labor laws and, pursuant to ADB's Social Protection Strategy (2001), will take measures to comply with the internationally recognized core labor standards.¹⁷ The client will regularly report to ADB on (i) its and its contractors' compliance with such laws and (ii) the measures taken. Information disclosure and consultation with affected people will be conducted in accordance with ADB requirements.¹⁸

B. Anticorruption Policy

38. ENA was advised of ADB's policy of implementing best international practice relating to combating corruption, money laundering, and the financing of terrorism. ADB will ensure that the investment documentation includes appropriate provisions prohibiting corruption, money laundering, and the financing of terrorism; and remedies for ADB in the event of noncompliance.

C. Investment Limitations

39. (Confidential information redacted.)

D. Assurances

40. Consistent with the Agreement Establishing the Asian Development Bank (the Charter),¹⁹ ADB will proceed with the assistance upon establishing that the Government of Armenia has no objection to the assistance to ENA. ADB will enter into suitable finance documentation, in form and substance satisfactory to ADB.

V. THE PRESIDENT'S DECISION

41. The President, acting under the authority delegated by the Board, has approved (i) the loan of up to \$20,000,000 from the ordinary capital resources of the Asian Development Bank (ADB); and (ii) the administration by ADB of the loan of up to \$15,000,000 to Electric Networks of Armenia Closed Joint-Stock Company for the ENA Investment Program Phase 2 in Armenia, to

¹⁶ This terminology was adopted to satisfy all lender's requirement and is equivalent to ADB's Corrective Action Plan requirement.

¹⁷ ADB. 2003. *Social Protection*. Manila (adopted in 2001).

¹⁸ Summary Poverty Reduction and Social Strategy (accessible from the list of linked documents in Appendix 2).

¹⁹ ADB. 1966. *Agreement Establishing the Asian Development Bank*. Manila.

be provided by the Leading Asia's Private Infrastructure Fund (LEAP), and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Impacts the Project is Aligned with			
Armenia's development strategy, 2014–2025 ^a in the energy sector, which focuses on improvements in energy efficiency and reliability by reconstructing and modernizing existing power substations, power lines, and other network equipment.			
Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
<p>Outcome</p> <p>Energy efficiency of electricity distribution in Armenia improved mainly through distribution loss reduction</p>	<p>By 2025:</p> <p>a. At least additional 4,100 tons of annual carbon dioxide emission avoided (2020 baseline: 0)^b (OP 3.1)</p> <p>b. Distribution losses decreased to 7% (Average 2018–2020 baseline: 7.3%)^c</p> <p>c. Power supply interruptions reduced to 457 minutes/customer based on SAIDI (2020 baseline: 609 for SAIDI)^d</p>	<p>a.–c. Annual Development Effectiveness Monitoring Report</p>	<p>Electricity consumption dropped unexpectedly</p>
<p>Outputs</p> <p>1. Electricity distribution network rehabilitated</p> <p>2. Capacity-building opportunities for women increased</p>	<p>By 2023:</p> <p>1a. At least 685 kilometers of distribution lines upgraded (2020 baseline: 0)</p> <p>1b. 35 10/0.4 kilovolt transformers upgraded (2020 baseline: 0)</p> <p>1c. 160,000 automatic metering devices for end-consumers installed (2020 baseline: 0)</p> <p>2a. Leadership training delivered to at least 30 female staff by 2025 (2020 baseline: n/a) (OP 2.3.1)</p> <p>2b. At least 10 female students or graduates from a polytechnic university participate in a practicum or internship program at ENA by 2025 (2020 baseline: n/a) (OP 2.2)</p>	<p>1.–4. Annual Development Effectiveness Monitoring Report</p>	<p>Cost overrun because of external factors</p>

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
<p>3. Gender inclusiveness of ENA workplace enhanced</p> <p>4. Support for gender-based violence survivors in the community increased</p>	<p>3a. Gender Inclusion Policy to support the hiring, retention, and promotion of female staff developed and implemented by 2023 (2020 baseline: No policy) (OP 2.3.2)</p> <p>3b. An anti-sexual harassment policy developed and implemented by 2022 (2020 baseline: No policy) (OP 2.2.3)</p> <p>4a. At least 75% of ENA's customer service centers have publicly available pamphlets or other materials that communicate support services (such as hotlines) for gender-based violence survivors by 2023 (2020 baseline: n/a) (OP 2.2.3)</p>		

Key Activities with Milestones

Outputs 1–4

1.1 Complete execution of legal documentation by year end 2021.

Output 2. Capacity-building opportunities for women enhanced

2.1 Develop leadership training, or identify provider, and deliver training to female staff by 2025.

2.2 Engage female students to apply for ENA practicum and participate in an internship by 2025.

Output 3. Gender inclusiveness of ENA workplace enhanced

3.1 Complete draft gender inclusion policy by 2023.

3.2 Complete draft anti-sexual harassment policy by 2022.

Output 4. Support for gender-based violence survivors in the community enhanced

4.1 Identify support services for gender-based violence survivors for promotion via ENA customer service centers by 2023.

Inputs

Asian Development Bank: \$20 million (loan)

Leading Asia's Private Infrastructure Fund: \$15 million (loan)

European Bank for Reconstruction and Development: \$70 million (loan)

ENA = Electric Networks of Armenia Closed Joint-Stock Company, n/a = not applicable, OP = operational priority, SAIDI = System Average Interruption Duration Index.

^a Government of Armenia. 2014. *Armenia Development Strategy for 2014–2025 (Annex to RA Government Decree # 442-N on 27 March 2014)*. Yerevan.

^b 4,100 tons of annual carbon dioxide emission avoided is the result of (i) taking the difference between ENA's distribution losses in 2025 and 7.3% (baseline), (ii) multiplied by the projected amount of energy sold by ENA in 2025 adjusted for transmission losses (1.5%), and (iii) multiplied by the grid emission factor for Armenia (247 grams of carbon dioxide per kilowatt-hour).

^c Distribution loss is x divided by y where x is the amount of technical losses in power distribution networks measured in gigawatt-hours and y is the amount of power supply to distribution networks measured in gigawatt-hours.

^d SAIDI is measured by (i) multiplying total number of customers' interruptions by the interruption duration and (ii) dividing the result from (i) by total number of customers served.

Contribution to Strategy 2030 Operational Priorities.

Expected values and methodological details for all OP indicators to which this project will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (accessible from the list of linked documents in Appendix 2). In addition to the OP indicators tagged in the design and monitoring framework, this project will contribute results for the following OP:

OP 4.1.1: Service providers with improved performance (1)

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/FastReport/?id=50146-003>

1. Sector Overview
2. Client Information
3. Details of Implementation Arrangements
4. Contribution to Strategy 2030 Operational Priorities
5. Financial Analysis
6. Economic Analysis
7. Country Economic Indicators
8. Summary Poverty Reduction and Social Strategy
9. Environment and Social Management System: Audit Findings and Details of Arrangement
10. Gender Action Plan
11. Integrity and Tax Due Diligence