

Second-Party Opinion

Electric Networks of Armenia

Green Bond and Loan Framework



Evaluation Summary

Sustainalytics is of the opinion that the Electric Networks of Armenia Green Bond and Loan Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2021 and the Green Loan Principles 2023. This assessment is based on the following:



USE OF PROCEEDS The eligible category for the use of proceeds, Energy and Resource Efficiency, is aligned with those recognized by the Green Bond Principles and the Green Loan Principles. Sustainalytics considers that investments in the eligible category will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7.



PROJECT EVALUATION AND SELECTION ENA's internal process for evaluating and selecting projects is supported by its technical and environmental teams, overseen by the finance directorate. Selected projects for financing under the Framework will receive final approval from ENA's Green Financing Committee. ENA's legal department will be responsible for the environmental and social risk management process for all allocation decisions made under the Framework. Sustainalytics considers the project selection process and environmental and social risk management process in line with market practice.



MANAGEMENT OF PROCEEDS ENA's process for management of proceeds is overseen by the Green Financing Committee chaired by the CFO. ENA has a dedicated system in place to ensure traceability of funds allocated to the selected projects. ENA intends to reach full allocation within 18 months of issuance. Unallocated proceeds will be held in cash, deposits or other forms of short-term liquid instruments. The Framework excludes temporary allocation to GHG-intensive and controversial activities. This is in line with market practice.



REPORTING ENA commits to report on allocation of proceeds on its website on an annual basis until full allocation. Allocation reporting will include information on the amount of unallocated funds. In addition, ENA intends to report on relevant impact metrics. Sustainalytics views ENA's allocation and impact reporting as aligned with market practice.

Evaluation date	December 07, 2023
Issuer Location	Yerevan, Armenia

Report Sections

Introduction.....	2
Sustainalytics' Opinion	3
Conclusion	8

For inquiries, contact the Sustainable Corporate Solutions project team:

Flora Mile (Amsterdam)
Project Manager
flora.mile@sustainalytics.com

Sameen Ahmed (Toronto)
Project Support

Astrid Bruchou (Amsterdam)
Project Support

Enrico Tessadro (Amsterdam)
Client Relations
susfinance.emea@sustainalytics.com
(+44) 20 3880 0193

Introduction

Electric Networks of Armenia CJSC (“ENA” or the “Company”) is an electricity distribution company headquartered in Yerevan, Armenia with approximately 9,000 transformation units and substations, 261 distribution stations, 35,000 km of cables and overhead lines and more than 10,000 transformers. As of 2023, ENA has more than 6676 employees and reports AMD 243.5 billion (USD 607.9 million) in revenue.

ENA has developed the Electric Networks of Armenia Green Bond and Loan Framework dated December 2023 (the “Framework”) under which it intends to issue green bonds and loans¹ and use the proceeds to finance or refinance the rehabilitation replacement and improvement of transformers, substations, overhead and cable lines and the installation of smart meters. Sustainalytics expects that the funded projects will contribute to the efficient transmission and distribution of electricity in Armenia. The Framework defines eligibility criteria in one area:

1. Energy and Resource Efficiency

ENA engaged Sustainalytics to review the Framework and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2021 (GBP)² and the Green Loan Principles 2023 (GLP).³ The Framework has been published in a separate document.⁴

Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent⁵ opinion on the alignment of the reviewed Framework with current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Green Bond Principles 2021, as administered by ICMA, and the Green Loan Principles 2023, as administered by LMA, APLMA and LSTA;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.15, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of ENA’s management team to understand the sustainability impact of its business processes and planned use of proceeds, as well as the management of proceeds and reporting aspects of the Framework. ENA representatives have confirmed that: (1) they understand it is the sole responsibility of ENA to ensure that the information provided is complete, accurate and up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and ENA.

Sustainalytics’ Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics’ Second-Party Opinion addresses the anticipated impacts of eligible

¹ ENA has confirmed to Sustainalytics that revolving credit facilities will not be obtained under the Framework. Furthermore, ENA has confirmed to Sustainalytics that the Company does not intend to obtain case multi-tranche loans under the Framework.

² The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

³ The Green Loan Principles are administered by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications and Trading Association and are available at <https://www.lsta.org/content/green-loan-principles/>

⁴ The Electric Networks of Armenia Green Bond and Loan Framework is available at: <https://www.ena.am/>

⁵ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

projects expected to be financed with bond and loan proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realised allocation of the bond and loan proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that ENA has made available to Sustainalytics for the purpose of this Second-Party Opinion.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Electric Networks of Armenia Green Bond and Loan Framework

Sustainalytics is of the opinion that the Electric Networks of Armenia Green Bond and Loan Framework is credible and impactful, and aligns with the four core components of the GBP and GLP. Sustainalytics highlights the following elements of the Framework:

- Use of Proceeds:
 - The eligible category, Energy and Resource Efficiency, is aligned with those recognized by the GBP and GLP.
 - ENA has defined a look-back period of two years for refinancing opex.
 - ENA intends to use the proceeds from instruments issued under the Framework to finance or refinance Project 1, which involves the rehabilitation and replacement of transformers, substations, overhead and cable lines; and Project 2, which focuses on the installation of smart meters. Sustainalytics notes the following:
 - Project 1 - For investments in transmission and distribution systems, the Framework aims to fund projects dedicated to replacing inefficient grids and substations, excluding the expansion and development of new infrastructure. Sustainalytics considers the upgrade and modernization of resilient electricity grids broadly to be supportive of positive environmental outcomes. In this regard, Sustainalytics encourages ENA to report on the quantifiable energy efficiency benefits achieved as a result of the grid and substation upgrades.
 - Project 2 - Sustainalytics considers the installation of smart meters to be supportive of more efficient end user demand management. Furthermore, ENA has clarified to Sustainalytics that the smart meters will be installed for end users, excluding installation on transmission lines connected to or dedicated to fossil fuel power.
 - Sustainalytics considers the projects selected for financing under the Framework aligned with market practice.
- Project Evaluation and Selection:
 - ENA's technical and environmental teams will be responsible for supporting the selection and evaluation of projects. The finance directorate will lead the process and the Green Financing Committee will give final approval.
 - As part of the project selection and evaluation process, ENA has set the following additional considerations: i) exclusion of projects associated with material litigation related to ESG issues; ii) assessment and calculation of expected benefits; iii) life cycle assessment, including the conception, construction and operation of projects; and iv) assessment against IFI's guidelines and standards.
 - ENA's legal team will be responsible for the assessment and management of environmental and social risk management processes for all allocation decisions made under the Framework. Sustainalytics considers these environmental and social risk management systems to be adequate and aligned with the requirements of the GBP and SBP. For additional detail, see Section 2.

- Based on the presence of management oversight on final project selection and processes for risk management, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
 - ENA’s management of proceeds will be overseen by the Green Financing Committee, which is chaired by the CFO and includes the chief environmentalist, external expert and representatives from the Financial and Technical directorates, and the Legal, Information Management Systems (IMS) and Audit departments. ENA has established a Green Bond Register to ensure traceability of funds.
 - ENA has communicated to Sustainalytics that it intends to reach full allocation within 18 months of issuance. Pending allocation, unallocated proceeds will be held in cash, deposits or other forms of short-term liquid instruments. The Framework excludes temporary allocation to GHG-intensive and controversial activities.
 - Based on the defined management approach and disclosure of the temporary use of proceeds, Sustainalytics considers this process to be aligned with market practice.
- Reporting:
 - ENA commits to report on the allocations made from issuances under the Framework, as well as their impact on an annual basis on its website until full allocation.
 - Allocation reporting may include the amount of unallocated funds and funds disbursed to eligible projects. Impact reporting may include the rate of reduction in power losses and progress on the installation of new meters.
 - Based on the commitment to allocation and impact reporting, Sustainalytics considers this process to be in line with market practice.

Alignment with Green Bond Principles 2021 and Green Loan Principles 2023

Sustainalytics has determined that the Electric Networks of Armenia Green Bond and Loan Framework aligns with the four core components of the GBP and GLP.

Section 2: Sustainability Initiatives of ENA

Contribution to ENA’s sustainability initiatives

Sustainalytics notes ENA’s efforts towards sustainability through a focus on ENA’s environmental and social impact.⁶

ENA is pursuing its environmental goals through the Company’s Energy Efficiency Management System, which sets out specific objectives for ENA to achieve. ENA is working to decrease its carbon footprint and expand the use of clean energy sources, such as renewables, and energy efficiency initiatives. ENA is committed to reducing electric energy system losses, with the intention to achieve a 4.6% reduction since 2016 and reach 6.4% by 2027.

To ensure reliable operations and a sustainable supply of electricity to communities, ENA aims to reduce the frequency of annual emergency power cutoffs by 2.5% and plans for a 5% reduction annually within a 5-10-year timeframe. Simultaneously, ENA targets a reduction in the duration of annual emergency power cutoffs by 2.5% within the next five years, with a long-term goal of a 5% reduction annually within the subsequent 5 to 10 years. Additionally, ENA has a commitment to reducing undersupply of electric energy by 2.5% in the next five years, followed by an annual reduction of 5% within the 5-10-year period.

Sustainalytics is of the opinion that the Electric Networks of Armenia Green Bond and Loan Framework is aligned with the Company’s overall sustainability efforts and initiatives and will further the Company’s action on its key environmental priorities. Nevertheless, Sustainalytics encourages the Company to establish a sustainability strategy with time-bound, quantitative targets and to ensure transparency and report on its progress.

Approach to managing environmental and social risks associated with the projects

Sustainalytics recognizes that the proceeds from the instruments issued under the Framework will be directed towards eligible projects that are expected to have positive environmental and social impacts. However, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks possibly associated with the eligible projects may include

⁶ ENA, “Electric Networks of Armenia Green Bond and Loan Framework”

issues involving land use and loss of biodiversity; emissions, effluents and waste generated during project execution; occupational health and safety; supply chain risks; and community relations.

Sustainalytics is of the opinion that ENA is able to manage or mitigate potential risks through implementation of the following:

- To address risks related to land use biodiversity loss and emissions, effluents and waste generated during project execution, ENA has an integrated management system in place developed in accordance to ISO 14001⁷ for environmental management and ISO 50001⁸ for energy management. The Company's ERP system integrates measures to identify risks including biodiversity, environmental, culture preservation and social implications related to its investment projects. ENA's management system has identified areas requiring special attention and considerations in relation to biodiversity protection, including the Specially Protected Areas of Nature of the Republic of Armenia,⁹ Ramsar wetlands and Important Bird Areas.¹⁰
- To minimize risks related to oil leakage and spills, ENA is committed to installing and constructing oil collectors under its transformers. Additionally, ENA is actively managing PCB-containing oil and phasing out transformers with high PCB concentrations in alignment with the Stockholm Convention.
- To promote the protection, restoration and enhancement of biodiversity, ENA is actively exploring the implementation of recognized international standards and sustainability system tools, such as the Global Biodiversity Standard.
- Regarding occupational health and safety, ENA focuses on maintaining safe working conditions and provides comprehensive safety training to employees. ENA also conducts regular audits to continuously improve its efforts to reduce occupational health and safety hazards. Finally, the Company has also adopted an integrated health management system in accordance with ISO 45001 standards.¹¹
- In relation to social responsibility, ENA follows ISO 26000, which provides guidance on social responsibility, including on issues of organizational governance, human rights, labour practices, fair operating practices, stakeholder management and community involvement. ISO 26000 references international treaties and principles, including the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work and the Rio Declaration on Environment and Development.

Based on the information provided by ENA, including its policies and management systems, Sustainalytics is of the opinion that ENA has implemented adequate measures and is well positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories. Sustainalytics further notes that some of the internal policies and processes to assess and mitigate potential risks are currently under development and encourages ENA to provide full disclosure of such policies and processes.

Section 3: Impact of Use of Proceeds

The use of proceeds category is aligned with those recognized by the GBP and GLP. Sustainalytics has focused below on where the impact is specifically relevant in the local context.

Importance of improving the electricity transmission and distribution network in Armenia

Energy losses stemming from inefficient transmission and distribution (T&D) networks must normally be compensated through additional electricity generation to meet electricity demand.¹² These losses can account for 4% to 15% of electricity generated,¹³ resulting in approximately 1 billion tGtCO₂e globally annually.^{14,15} Improvements in the efficiency of T&D networks, such as through the replacement of

⁷ ISO, "ISO/IEC 14001:2015 - Environmental management systems", at: <https://www.iso.org/iso-14001-environmental-management.html>

⁸ ISO, "ISO/IEC 50001:2018 – Energy management systems", at: <https://www.iso.org/standard/51297.html>

⁹ "Specially Protected Areas of Nature" is defined as areas protected under Armenian legislature, which may include National Parks, State Reserves, Sanctuaries and Natural Monuments.

Armenian Geographic, "Specially protected areas of RA", at: <https://www.armgeo.am/en/specially-protected-areas/>

¹⁰ "Important Bird Areas" are defined as areas identified by Birdlife International NGO, at: <https://www.birdlife.org/focus-areas/sites/>

¹¹ ISO, "ISO/IEC 45001:2018 – Energy management systems", at: <https://www.iso.org/standard/63787.html>

¹² International Energy Agency, "Sustainable Recovery: Electricity", (2020), at: <https://www.iea.org/reports/sustainable-recovery/electricity>

¹³ ScienceDirect, "Power transmission and distribution losses – A model based on available empirical data and future trends for all countries globally", (2019), at: <https://www.sciencedirect.com/science/article/abs/pii/S0142061518335075>

¹⁴ Nature, "The climate mitigation opportunity behind global power transmission and distribution", (2019), at: <https://www.nature.com/articles/s41558-019-0544-3>

¹⁵ International Energy Agency, "Sustainable Recovery: Electricity", (2020), at: <https://www.iea.org/reports/sustainable-recovery/electricity>

transformers or investment in smart grids,¹⁶ can reduce carbon emissions resulting from T&D losses by as much as 544 MtCO₂ per year.¹⁷ In addition to reducing energy losses, improvements or expansion in T&D networks are also essential to support the expansion of renewable energy in total electricity generation.¹⁸

In Armenia, the T&D network comprises 16 substations, with five having undergone recent reconstruction and an additional five currently under reconstruction since 2021.¹⁹ These investments in T&D network rehabilitation have led to a significant reduction in combined T&D losses in Armenia, decreasing from 13% in 2010²⁰ to 7.46% in 2021.²¹ In 2021, the Government of Armenia approved an Energy Sector Development Strategic Programme that prioritizes maximum use of the country's renewable energy potential and energy efficiency.²² The programme's focus on the electricity transmission network includes actions for: i) the modernization of existing infrastructure; and ii) expansion of its transmission network, including the construction of a north-south corridor to improve the integration of power transmission lines with neighbouring countries for greater energy security.^{23,24}

Given this context, Sustainalytics expects ENA's financing of resource and energy efficiency projects to contribute to Armenia's efforts to improve efficiency of its T&D network.

Contribution to SDGs

The Sustainable Development Goals were adopted in September 2015 by the United Nations General Assembly and form part of an agenda for achieving sustainable development by 2030. The instruments issued under the Electric Networks of Armenia Green Bond and Loan Framework are expected to help advance the following SDG and target:

Use of Proceeds Category	SDG	SDG target
Energy and Resource Efficiency	7. Affordable and Clean Energy	7.3 By 2030 double the global rate of improvement in energy efficiency

Conclusion

ENA has developed the Electric Networks of Armenia Green Bond and Loan Framework, under which it may issue green bonds and loans, and use the proceeds to finance and refinance, in whole or in part, existing or future eligible projects as defined in the Framework, which are intended to contribute to the efficient transmission and distribution of electricity in Armenia. Sustainalytics considers that the eligible projects are expected to provide positive environmental impacts.

The Electric Networks of Armenia Green Bond and Loan Framework outlines a process for tracking, allocating and managing proceeds and makes commitments for reporting on allocation and impact. Sustainalytics considers that the Electric Networks of Armenia Green Bond and Loan Framework is aligned with ENA's overall sustainability strategy and that the use of proceeds will contribute to the advancement of the UN Sustainable Development Goals, specifically SDG 7. Additionally, Sustainalytics is of the opinion that ENA has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects.

Based on the above, Sustainalytics is confident that ENA is well positioned to issue green bonds and loans and that that the Electric Networks of Armenia Green Bond and Loan Framework, is robust, transparent and

¹⁶ Ibid.

¹⁷ Nature, "The climate mitigation opportunity behind global power transmission and distribution", (2019), at: <https://www.nature.com/articles/s41558-019-0544-3>

¹⁸ World Economic Forum, "Why transmission and distribution are the clean energy transition's secret weapons", (2020), at: <https://www.weforum.org/agenda/2020/07/transmission-distribution-clean-energy-transition/>

¹⁹ Government of Armenia, "Republic of Armenia Energy Sector Development Strategic Program to 2040" (2020), at: <https://policy.asiapacificenergy.org/sites/default/files/Energy%20Sector%20Development%20Strategic%20Program%20to%202040%20.pdf>

²⁰ World Bank, "Republic of Armenia Energy Sector Note", (2010), at:

<https://documents1.worldbank.org/curated/fr/323861468208168829/pdf/700200Revised00ote0Report0final0eng.pdf>

²¹ IEA, "Armenia Energy Profile", (2023), at: <https://iea.blob.core.windows.net/assets/8328cc7c-e65e-4df1-a96f-514fdd0ac31e/Armenia2022EnergyPolicyReview.pdf>

²² Government of Armenia, "Republic of Armenia Energy Sector Development Strategic Program to 2040" (2020), at: <https://policy.asiapacificenergy.org/sites/default/files/Energy%20Sector%20Development%20Strategic%20Program%20to%202040%20.pdf>

²³ Ibid.

²⁴ IEA, "Armenia 2022 Energy Policy Review", (2022), at: <https://www.iea.org/reports/armenia-2022>

in alignment with the four core components of the Green Bond Principles 2021 and Green Loan Principles 2023.

Disclaimer

Copyright ©2023 Sustainalytics. All rights reserved.

The information, methodologies and opinions contained or reflected herein are proprietary of Sustainalytics and/or its third party suppliers (Third Party Data), and may be made available to third parties only in the form and format disclosed by Sustainalytics, or provided that appropriate citation and acknowledgement is ensured. They are provided for informational purposes only and (1) do not constitute an endorsement of any product or project; (2) do not constitute investment advice, financial advice or a prospectus; (3) cannot be interpreted as an offer or indication to buy or sell securities, to select a project or make any kind of business transactions; (4) do not represent an assessment of the issuer's economic performance, financial obligations nor of its creditworthiness; and/or (5) have not and cannot be incorporated into any offering disclosure.

These are based on information made available by the issuer and therefore are not warranted as to their merchantability, completeness, accuracy, up-to-dateness or fitness for a particular purpose. The information and data are provided "as is" and reflect Sustainalytics' opinion at the date of their elaboration and publication. Sustainalytics accepts no liability for damage arising from the use of the information, data or opinions contained herein, in any manner whatsoever, except where explicitly required by law. Any reference to third party names or Third Party Data is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner. A list of our third-party data providers and their respective terms of use is available on our website. For more information, visit <http://www.sustainalytics.com/legal-disclaimers>.

The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.

In case of discrepancies between the English language and translated versions, the English language version shall prevail.

About Sustainalytics, a Morningstar Company

Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. For more than 30 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. Sustainalytics also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices and capital projects. With 17 offices globally, Sustainalytics has more than 1500 staff members, including more than 500 analysts with varied multidisciplinary expertise across more than 40 industry groups.

For more information, visit www.sustainalytics.com

Or contact us contact@sustainalytics.com

