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Second Party Opinion And European Green Bond Pre-Issuance Review

Elenia European Green Bond Factsheet

May 22, 2025

Location: Finland

Sector: Utilities (Networks)

Alignment Summary

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✗

- ✓ European Green Bond Regulation (EuGBR)
- ✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

See [Alignment Assessment](#) for more detail.

EuGB factsheet Shade: **Dark green**

Primary contact

Salaheddine Soumir

Paris
+ 3360-3748-108
salaheddine.soumir
@spglobal.com

**Dark
green**

Activities that correspond to the long-term vision of a low-carbon climate resilient future.

Our [Shades of Green Analytical Approach](#) >

Strengths

The issuer's commitment to publish an allocation and an impact report annually goes beyond EuGBR requirements. We also view positively that Elenia will seek external reviews of its annual reporting until the bond's full allocation or maturity, enhancing transparency.

Weaknesses

No weaknesses to report.

Areas to watch

Elenia has not included ex-ante estimates of the environmental impacts of the European Green Bonds (EuGBs) in the factsheet. This factsheet may be used for multiple EuGB issuances, so Elenia states it will disclose estimated impacts in bond-specific documentation where possible. The company commits to providing post-issuance annual reports on the proceeds' actual environmental impacts.

Shades of Green Projects Assessment Summary

In the year following issuance of the financing, Elenia expects to allocate the EuGBs' net proceeds to electricity projects. The issuer expects approximately 75% of proceeds to be allocated to refinancing projects, while the remaining 25% will finance new projects.

Based on the project category's Shades of Green detailed below, the expected allocation of proceeds, and consideration of environmental ambitions reflected in Elenia’s green bond factsheet, we assess the factsheet Dark green.

Renewable energy	 Dark green
Elenia intends to allocate proceeds to related activities, using the Technical Screening Criteria (TSC) applicable at the time of the bond's issuance:	
CCM 4.9 Transmission and distribution of electricity (NACE codes D35.12 and D35.13)*	

*Economic activities are also assessed in the EuGB Pre-Issuance Review.

See [Analysis Of Eligible Projects](#) for more detail.

European Green Bond (EuGB) Pre-Issuance Review Summary

We understand Elenia has completed its EuGB Factsheet in line with Articles 4-8 and Annex I of the EuGBR, and aligns with the regulations' requirements.

Elenia will use the EuGBs' net proceeds to finance (about 25% of proceeds) and refinance (about 75%) capital expenditure (capex), operational expenditure (opex), and fixed assets associated with activities already aligned with the EU Taxonomy, in line with the gradual approach. We expect the issuer to allocate all proceeds to the distribution of electricity (activity 4.9) in Finland, which we think is aligned with both the substantial contribution criteria for climate change mitigation and the Do No Significant Harm (DNSH) criteria of the EU Taxonomy.

As of 2024, Elenia reports that 98.7% of its capex, 77.9% of its opex, and 97.5% of its revenue were aligned with the EU Taxonomy. Through the allocation of proceeds from the EuGBs, Elenia aims to maintain or further increase the alignment of its capex, opex, and revenue.

These investments will help Elenia’s broader climate efforts on modernizing its distribution network and integrating renewable energy sources. The company has set a target that by 2035, the renewable electricity connected to and fed into its network over the year will match the network’s total annual electricity consumption. Additionally, projects will help achieving net-zero emissions target 2050, including Scope 3. To do so, Elenia aims to reduce Scope 1 and 2 emissions by 75% by 2030 against a 2020 baseline, exceeding its Science Based Targets initiative (SBTi)-validated target of 42%.

Elenia commits to publish annually an allocation and an impact report, going beyond EuGB regulation requirements. We positively view that the issuer will seek external reviews on both allocation and impact reports until full allocation or maturity of the relevant bond.

Alignment opinion	EuGB pre-issuance review
✓	EuGB factsheet completed as per Annex I of the EuGBR
✓	Article 4: Use of the proceeds of EuGB

[Article 4 summary table](#)

[TSC](#)

Economic activity		Substantial contribution	Do no significant harm	Minimum safeguards (Issuer level)	Overall alignment
4.9 Transmission and distribution of electricity (NACE codes D35.12 and D35.13)		✓	✓	✓	✓
N.A.	Article 5: Flexibility in the use of the proceeds of EuGBs				
N.A.	Article 6: Financial assets				
N.A.	Article 7: Capex plan				
✓	Article 8: Application of the TSC and grandfathering				

Aligned = ✓ Not aligned = ✗ Not covered by the technical screening criteria = — Not applicable = N.A.

See [EuGB Pre-Issuance Review](#) for more detail.

Issuer Sustainability Context

This section provides an analysis of the issuer's sustainability management and the embeddedness of the financing factsheet within its overall strategy.

Company Description

Elenia Verkko Oyj is a Finnish electricity distribution company headquartered in Tampere. It is the second-largest distribution system operator in Finland, serving approximately 442,000 customers across more than 100 municipalities in regions including Kanta-Häme, Päijät-Häme, Pirkanmaa, Central Finland, South Ostrobothnia, and North Ostrobothnia. As of 2024, Elenia operates an electricity network spanning approximately 77,000 kilometers. The company was founded in 2012 and is owned by Valtion Eläkerahasto (VER), Allianz Capital Partners on behalf of the Allianz Group, and Macquarie Super Core Infrastructure Fund. The group structure includes energy sector services provider Elenia Oy and electricity network services provider Elenia Verkko Oyj.

Instruments under the factsheet will be issued by Elenia Verkko Oyj only.

Material Sustainability Factors

Climate transition risk

Climate transition risks are highly material to stakeholders but tend to have more bearing on electricity networks given their critical role in energy delivery and direct exposure to upstream generators, a leading cause of greenhouse gas emissions. These factors make the sector highly susceptible to growing public, political, legal, and regulatory pressure to accelerate climate goals and are highly relevant for stakeholders globally. The energy sector's ongoing decarbonization is expected to triple its reliance on renewable power, necessitating substantial grid expansion. In the electricity network sector, continued focus on reducing reliance on fossil fuel-based power generation could reshape growth prospects, making it essential to effectively manage regulatory risk. In Finland, national climate policy and EU targets for carbon neutrality by 2035 and 2050, respectively, are increasing pressure on electricity distribution operators to enable faster integration of renewable energy and support electrification of transport and heating, requiring sustained investment in grid capacity and flexibility.

Physical climate risk

Networks operate fixed assets spanning large service territories, making them highly exposed to physical climate risks. Climate events can cause network service disruptions for large populations. Wildfires, hurricanes, and winter storms have impaired issuers globally. During these events, the utility can incur higher costs, which typically leads to higher leverage. In Finland, key physical risks for electricity networks include heavy snow, storms, and shorter frost periods, which can affect grid stability and increase operational and repair costs.

Access and affordability

The affordability and reliability of energy networks are under pressure from climate-related risks, increasing their importance for stakeholders. Energy is an essential service supporting health, well-being, and global economic development. The energy transition and physical climate risk are likely to amplify service disruptions or steep price increases. These can affect households' purchasing power and the competitive strengths of local industries. Despite these challenges, the reliability of energy networks remains high, and we expect this to continue, given that energy utilities engage in long-term planning that accounts for these risks. Moreover, while utility bills are rising, they tend to increase less than inflation. Additionally, regulators continue to allow utilities to use mechanisms to smooth volatility and to offer income assistance programs, which underpins the more moderate impact.

Issuer And Context Analysis

The eligible project categories address climate transition and physical climate risks and are the most important material sustainability factors for Elenia. The eligible project category, 4.9 Transmission and Distribution of Electricity, includes the development of smart grids and infrastructure upgrades that improve system efficiency and reliability, in line with Finland's carbon neutrality targets. Physical climate risks are also relevant because distribution assets (particularly overheads) are highly exposed to climate change in the country.

To address climate transition risks and support its decarbonization targets, Elenia focuses on modernizing its distribution network and integrating renewable energy sources. The group has set a target that, by 2035, the total renewable electricity connected to and fed into its network over the year will match the network's annual electricity consumption. Additionally, the issuer has committed to achieving carbon neutrality in its own operations by 2035 and net zero emissions, including Scope 3, by 2050. It is participating in Finland's national electricity metering reform, expected to conclude in 2025, and is piloting lower-emission technical solutions, including low-carbon aluminum and recycled plastic in its Weatherproof project. Elenia is also working with suppliers to reduce value chain emissions: In 2024, 37% of its suppliers had committed to the SBTi, with a 2025 target for 35% of procurement spend to come from SBTi-aligned suppliers. A net zero business plan is under development to guide Scope 3 mitigation.

Elenia enhances the climate resilience of its operations through long-term planning and infrastructure design that can withstand climate conditions. The company has about 76,900 kilometers of electricity network. By 2024, 65.1% of Elenia's electricity distribution network was underground, enhancing network reliability and security of supply. The company has conducted a physical climate risk assessment in accordance with the EU Taxonomy Climate Delegated Act, drawing on the latest IPCC findings and long-term climate scenarios. The findings identify extreme weather events and seasonal changes--like shorter frost periods--as one of the main threats for its assets, which design standards and investment in resilience address. The company has systematically replaced its aging overhead line network with weatherproof underground cable networks and developed smart grid.

Elenia has maintained a stable and moderately increasing electricity distribution pricing structure, balancing the need for cost recovery with affordability for customers. The total price of electricity includes supply, distribution services, and taxes, which Elenia collects and pays to the government. Over the past 13 years, the distribution price for the most commonly used general electricity product has risen by only 1.78 cents per kilowatt-hour (/kWh), despite significant investments in network modernization, including weatherproofing and smart grid development. In 2024, Elenia's network service prices increased an average of 3.5%, primarily due to rising network construction and maintenance costs and the need to support the green transition. The distribution fee is currently at most 4.69 cents/kWh (excluding taxes). Elenia has maintained transparency in its pricing by clearly communicating price components and changes, achieving a Trust & Reputation survey score of 2.87 in 2024, exceeding the target of 2.75.

Alignment Assessment

This section provides an analysis of the factsheet's alignment to Green Bond principles.

Alignment Summary

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✗

✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

✓ Use of proceeds

We assess the factsheet's green project category as having a Dark green shade, and Elenia commits to allocating net proceeds issued under the factsheet exclusively to the eligible green project. The issuer applies the EU Taxonomy's substantial contribution criteria for climate change mitigation to determine project eligibility. Refer to the Analysis of Eligible Projects section for more information on the environmental benefits of the use of proceeds.

Elenia can finance and refinance capex, opex, and fixed assets associated with EU Taxonomy-aligned activities, in line with the gradual approach under the EuGBR.

✓ Process for project evaluation and selection

The factsheet outlines the process to evaluate and select eligible green expenditure in line with Elenia's sustainability strategy. Projects are screened against the EU Taxonomy criteria as part of the allocation and reporting process. A green finance committee, composed of members from sustainability and treasury, evaluates and selects projects, monitoring ESG risks, and preparing allocation and impact reports.

The green finance committee oversees the allocation of proceeds to ensure alignment with the environmental objectives in the factsheet. The issuer states that no proceeds will be allocated to transitional economic activities or Taxonomy-aligned activities related to nuclear energy and fossil gas, in accordance with Articles 10(2) and 11(3) of Regulation (EU) 2020/852.

✓ Management of proceeds

Elenia maintains a Green Finance Register to monitor the allocation of net proceeds to eligible green projects and assets in line with Article 3 of Regulation (EU) 2020/852. Proceeds will be tracked until full allocation, and relevant information on the financing and refinancing of projects will be documented. Unallocated proceeds may be temporarily held in accordance with the company's liquidity reserve management practices.

✓ Reporting

The issuer commits to report annually on the allocation and impact of the net proceeds until full allocation of the EuGBs issued under the factsheet. The report will include, where possible, project-level information such as the amounts allocated and share of refinancing.

Elenia also commits to publishing post-issuance impact reports outlining environmental outcomes using relevant indicators, in line with Article 12(1) of Regulation (EU) 2023/2631, the ICMA Green Bond Principles, and market best practice. Examples of relevant impact metrics include the total capacity of new electricity connections to the grid (in megawatt-hours [MWh]), the amount of renewable energy production connected to the grid (both in MWh for energy produced and in megawatts [MW] for installed capacity), and the estimated avoided CO2 emissions (GHG Scope 1, 2, and 3) in tons of CO2 equivalent (tCO2eq). Reports will be made available through the investor relations section of Elenia's website.

Analysis Of Eligible Projects

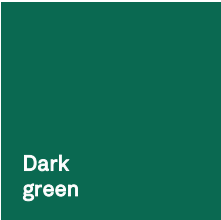
This section provides details of our analysis of eligible projects, based on their environmental benefits and risks, using the "[Analytical Approach: Shades Of Green Assessments](#)".

Overall Shades of Green assessment

Based on the project category shades of green detailed below, the expected allocation of proceeds, and consideration of environmental ambitions reflected in Elenia's EuGB factsheet, we assess the factsheet Dark green.

Elenia expects to allocate proceeds to electricity distribution activities (activity 4.9), in line with the applicable TSC under the EU Taxonomy.

EuGB factsheet Shade:  Dark green



Activities that correspond to the long-term vision of a low-carbon climate resilient future.
Our [Shades of Green Analytical Approach](#) >

Green project categories

Renewable energy	
Assessment	Description
 Dark green	Elenia intends to allocate proceeds to corresponding activities, using the TSC applicable at the time of issuance: CCM 4.9 Transmission and distribution of electricity (NACE codes D35.12 and D35.13)

Analytical considerations

- Reliable and efficient electricity distribution networks are essential for supporting electrification and achieving a low-carbon economy. Investments in making distribution grids more flexible, enhancing their resilience to physical risks, and minimizing technical losses are necessary. At the same time, these networks must be managed carefully to avoid disrupting habitats and harming biodiversity, particularly in areas of high ecological value.
- Through this project category, the issuer will renew the aging electricity network into a weatherproof and smart grid, supporting electrification and ensuring reliable service for households, businesses, and local industries in Finland. Elenia's network serves a broad mix of customers, with residential users accounting for 42% of distributed energy; agriculture, services and construction, 29%; industry, 23%; and other users, 5%. The average grid emission factor for electricity consumed in Finland in 2024 was 33 grams of carbon dioxide (gCO₂)/kWh, according to the country's transmission system operator (Fingrid), well below the threshold of 100 gCO₂/kWh low-carbon electricity generation under the EU Taxonomy. Therefore, we assign a Dark green shade to this category. Grid losses remain modest at approximately 4% and are managed through upgrades such as modern transformers, underground cabling, and compliance with Tier 2 efficiency standards. As a distribution system operator, Elenia primarily operates medium- and low-voltage networks, along with some high-voltage (110 kV) infrastructure used for distribution. However, fossil fuel generation assets are typically connected to higher-voltage transmission networks beyond Elenia's scope, which limits the group's direct exposure to these activities.
- Elenia manages environmental risks in its electricity distribution network through compliance with EU and Finnish regulations. This includes addressing the use and potential leaks of sulfur hexafluoride (SF₆) in, a greenhouse gas in electrical transmission facilities with a global warming potential approximately 23,500x higher than CO₂. Elenia will phase out SF₆ in medium-voltage equipment by the end of 2025, in line with the revised EU F-Gas Regulation. Existing SF₆-containing equipment will remain in use until the end of its service life, with measures to prevent leaks.

- Environmental risks associated with electricity distribution networks can be mitigated through Elenia's compliance with regulatory requirements and its commitment to the energy sector's biodiversity roadmap. Distribution networks can affect biodiversity by fragmenting habitats and posing risks to bird species. To address these risks, Elenia prioritizes underground cabling in ecologically sensitive areas to reduce habitat fragmentation. Additionally, the company implements protective measures, such as installing bird markers on overhead lines, to prevent bird collisions.
- The assets under financing are exposed to physical climate risks, particularly extreme weather events such as storms, heavy snowfall, and frost, which can impair the reliability of electricity distribution networks. These events, which are becoming more frequent and severe, can cause network service disruptions for large populations and other operational stoppages. Elenia has assessed the impacts of climate change on its operations through climate scenario analysis. Risks such as extreme weather and shorter frost periods are addressed through underground cabling investments, which increased from 23.1% to 65.1% of the network from 2012-2024, supported by over €1.6 billion in investment. Progress is monitored using outage-related key performance indicators, including SAIDI (System Average Interruption Duration Index), which measures the average outage duration for customers; SAIFI (System Average Interruption Frequency Index), which tracks the average number of outages experienced by customers; and regulatory outage costs, which reflect the financial impact of service interruptions under regulatory frameworks. Elenia also engages with emergency services, authorities, and telecom operators to coordinate responses during major disruptions and participates in regional and national preparedness groups. These measures strengthen network resilience and reduce the frequency and impact of climate-related service interruptions.
- Refer to the EU taxonomy Assessment section for more information on our analysis of the issuer's climate adaptation solutions, circular economy, pollution prevention, and biodiversity conservation approach.

S&P Global Ratings' Shades of Green

Assessments					
 Dark green	 Medium green	 Light green	 Yellow	 Orange	 Red
Description					
Activities that correspond to the long-term vision of an LCCR future.	Activities that represent significant steps toward an LCCR future but will require further improvements to be long-term LCCR solutions.	Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term LCCR solutions.	Activities that do not have a material impact on the transition to an LCCR future, or, Activities that have some potential inconsistency with the transition to an LCCR future, albeit tempered by existing transition measures.	Activities that are not currently consistent with the transition to an LCCR future. These include activities with moderate potential for emissions lock-in and risk of stranded assets.	Activities that are inconsistent with, and likely to impede, the transition required to achieve the long-term LCCR future. These activities have the highest emissions intensity, with the most potential for emissions lock-in and risk of stranded assets.
Example projects					
 Solar power plants	 Energy efficient buildings	 Hybrid road vehicles	 Health care services	 Conventional steel production	 New oil exploration

Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades.

LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate change and achieving sustainable outcomes across both climate and non-climate environmental objectives. Long term and near term--For the purpose of this analysis, we consider the long term to be beyond the middle of the 21st century and the near term to be within the next decade. Emissions lock-in--Where an activity delays or prevents the transition to low-carbon alternatives by perpetuating assets or processes (often fossil fuel use and its corresponding greenhouse gas emissions) that are not aligned with, or cannot adapt to, an LCCR future. Stranded assets--Assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities (as defined by the University of Oxford).

European Green Bond Regulation Pre-Issuance Review

This section provides an opinion on whether the issuer's pre-issuance European Green Bond (EuGB) factsheet is complete and aligns with the requirements of the [Analytical Approach: European Green Bond External Review](#).

Alignment Summary

Aligned = ✓ Not aligned = ✗

✓ European Green Bond Regulation (EuGBR)

Alignment Assessment

Aligned = ✓ Not aligned = ✗ Not applicable = N.A.

✓ EuGB factsheet completed as per Annex I of the EuGBR

We think Elenia's factsheet is complete and includes all the information required in Annex 1 of the EuGBR regulation.

The factsheet outlines Elenia's environmental strategy and the rationale for issuing EuGBs. Proceeds will support the company's transition by financing and refinancing capex, opex, and fixed assets related to EU Taxonomy-aligned electricity distribution activities under category 4.9, Transmission and distribution of electricity. These investments are intended to enable electrification, reduce grid losses, and strengthen network resilience through smart grid solutions and underground cabling. Elenia has committed to achieving carbon neutrality in its own operations by 2035 and net zero emissions, including Scope 3, by 2050. It also aims for the renewable energy fed into its network to equal its total annual electricity consumption by 2035.

The issuer notes it expects activities eligible for EuGB financing--such as weatherproofing through underground cabling, participation in the national smart metering reform, and engagement with suppliers committed to the SBTi--to contribute to achieving these targets. Elenia states no proceeds will be allocated to transitional activities or to taxonomy-aligned projects related to fossil gas or nuclear energy, in line with Articles 10(2) and 11(3) of Regulation (EU) 2020/852.

The factsheet links the use of proceeds to Elenia's broader climate strategy and EU Taxonomy key performance initiatives. In 2024, 98.7% of Elenia's capex, 77.9% of opex, and 97.5% of turnover were reported as aligned with the EU Taxonomy for climate change mitigation. The issuer states that bond proceeds will contribute to maintaining and potentially increasing this level of alignment. The company has set approved science-based targets covering scopes 1, 2, and 3, in line with the Paris Agreement.

Elenia does not include ex-ante estimates of environmental impacts in the factsheet, because it may be used for multiple EU Green Bond issuances. Where possible, estimated impacts will be disclosed in bond-specific documentation. Actual environmental performance will be reported post-issuance annually, in line with Article 12(1) of Regulation (EU) 2023/2631 and the ICMA Green Bond Principles. Impact indicators may include capacity expansion, renewable energy connected, cabling rate, and avoided CO₂ emissions. Elenia commits to publish annually an allocation and an impact report, going beyond EuGB regulation requirements. We positively view the issuer will seek external reviews on both allocation and impact reports until full allocation or maturity of the relevant bond.

The green finance committee, composed of members from Sustainability and Treasury, is responsible for selecting eligible expenditure, monitoring ESG risks, and preparing allocation and impact reports. Unallocated proceeds may be temporarily held in accordance with the company's liquidity reserve management practices.

✓ Article 4: Use of the proceeds of EuGBs

We view Elenia's factsheet as aligned with Article 4 of the EuGBR.

The group commits to allocate net proceeds to finance and refinance capital and operational expenditures, and to fixed assets associated with activities fully aligned with the EU Taxonomy. The issuer follows the gradual approach and confirms that the

bonds are not securitization bonds. Approximately 25% of the proceeds will be for financing and 75% for refinancing. The issuer states that no issuance costs will be deducted from the gross proceeds.

Proceeds will be allocated to economic activities contributing to the environmental objective of climate change mitigation under Article 9 of Regulation (EU) 2020/852. Elenia intends to allocate nearly 100% of the proceeds to enabling activities under category 4.9, Transmission and distribution of electricity (NACE codes D35.12 and D35.13).

The issuer may finance expenditure in projects provided they meet EU Taxonomy alignment criteria at the time of allocation. According to the group, alignment with DNSH criteria and compliance with minimum safeguards are documented in Elenia's annual reporting.

Proceeds will not fund transitional activities.

EU Taxonomy alignment analysis

4.9 Transmission and distribution of electricity (NACE codes D35.12 and D35.13)

The issuer expects to allocate 100% of net proceeds towards fixed assets, as well as capex and opex related to electricity distribution.

Opinion	Key findings
Unreliable – The audit firm was not able to obtain sufficient appropriate audit evidence to enable it to form an opinion on the financial statements.	The audit firm was not able to obtain sufficient appropriate audit evidence to enable it to form an opinion on the financial statements.

Substantial contribution: TSC assessment

We consider Elenia's financing related to the distribution of electricity aligned with the TSC for a substantial contribution to the EU's climate mitigation objective.

- The projects are in Finland, which is part of the interconnected European electricity system, meeting the eligibility criteria of the EU Taxonomy for distribution activities.
- Elenia confirms that while it is legally required to connect all types of consumption points under Finnish nondiscrimination laws, in practice, the new capacity added to the grid is primarily renewable, and the company has no intention of creating or expanding direct connections to fossil fuel plants or high-emitting users.
- ✓ • Proceeds will finance or refinance smart grid infrastructure, including automation systems, sensors, voltage control equipment, and smart meters that comply with Articles 19(6) and 20 of Directive (EU) 2019/944.
- Transformers used in the network meet Tier 2 requirements under the Ecodesign Directive, and Elenia applies loss value calculations that result in performance in some cases exceeding minimum thresholds.
- The network infrastructure enables renewable electricity exchange between users and includes interconnectors linked to Taxonomy-compliant systems. Finland operates within a single price and network area, so weighted-average emission factors are not applicable. Elenia also confirms that no new distribution activities are carried out in noncompliant systems unless they meet the criteria for always-compliant activities under the Taxonomy.

DNSH: TSC assessment

According to the EU Taxonomy, this activity cannot harm EU objectives on climate adaptation, the circular economy, pollution prevention, and biodiversity. We consider the issuer's activity aligned with the DNSH TSC for these factors (refer to the DNSH table for the assessment of climate adaptation and biodiversity criteria).

- Elenia has confirmed that waste management plans are integrated into procurement documentation. These plans follow the waste hierarchy, prioritizing prevention, reuse, and recycling, with recovery through incineration or landfilling as a last resort. Elenia cooperates with a long-term recycling partner to improve the efficiency of material recovery, and quantities of dismantled materials are reported monthly to the board of directors.
- To address pollution prevention and control risks, including exposure to electromagnetic fields, Elenia follows industry guidelines and applies internal procedures aligned with the IFC General Environmental, Health, and Safety Guidelines. The company states that high action limits for non-ionizing radiation are not exceeded in its network, and particularly vulnerable individuals are excluded from entering high-exposure areas such as power stations. Occupational health and safety risks are managed through ISO 14001 and ISO 45001 certified systems.
- Elenia has confirmed it does not use PCB in its operations. While trace amounts could be present in isolated equipment, the company monitors and tests older assets for PCB content before decommissioning. In 2024, the share of PCB residues in

demolished transformers was reported as 0%. Elenia confirms that financing will only apply to PCB-free grids, in line with the EU Taxonomy, or will begin once all PCBs have been removed.

Aligned = ✓ Not aligned = ✗

Analysis of the generic DNSH

Opinion	Environmental objective	Key findings
✓	Climate adaptation	Elenia has analyzed physical climate risks using regionalized scenarios consistent with IPCC guidelines. In 2024, it updated its scenario analysis based on RCP1.9, RCP4.5 and RCP8.5, looking at short-term (under a year), medium-term (1–12 years), and long-term (12–30 years) risks. In early 2025, it assessed physical risks and opportunities across these time frames in terms of economic impact. Elenia's electricity network is designed to withstand changing weather conditions, including frost and flooding, and the company integrates physical risk data--such as flood maps--into its Network Information System. Its underground cabling rate, which improves resilience and limits exposure to climate events, stood at 65.1% in 2025 and is expected to reach 90% by 2036. The company also has a long-standing major disturbance response organization and collaborates with national stakeholders, including the Finnish Meteorological Institute. An updated climate adaptation plan is under development as part of Elenia's ongoing TCFD alignment.
✓	Biodiversity protection	For grid projects requiring construction permits, including all 110 kilovolt lines, Elenia conducts environmental studies in accordance with national permitting legislation. If the Environmental Impact Assessment Act does not apply, a project-specific environmental study is still required under the Electricity Market Act and is included in the permit application. These studies assess the environmental impacts and land-use compatibility of the proposed line. Permitting is overseen by Finland's Centres for Economic Development, Transport and the Environment, which act as the relevant authority for evaluating environmental risks, including biodiversity. Where projects are near biodiversity-sensitive areas, assessments and mitigation measures are implemented as part of the formal permitting process.

Aligned = ✓ Not aligned = ✗

Minimum safeguards assessment at the issuer level

Opinion	Key findings
✓	- Elenia has established a human rights due diligence process in line with international standards, including the UN Guiding Principles, the ILO Declaration on Fundamental Principles and Rights at Work, and the OECD Guidelines for Multinational Enterprises. The due diligence process involves identifying and assessing adverse impacts from the perspective of affected individuals, prioritizing risks such as occupational safety in network construction and working conditions in the supply chain. Human rights considerations are integrated into procurement practices, supplier audits, and training. Elenia operates exclusively in Finland, a country with strong regulatory frameworks and high standards for labor rights, risks related to supply chain human rights are somewhat limited. The implementation of due diligence is monitored by sustainability working groups and, from 2025, will be overseen by the audit and risk committee. - Elenia has anticorruption and antibribery guidelines for all personnel, supported by regular training and internal control measures. In 2024, the company updated its procedures and required all employees to complete anticorruption and antibribery training; all personnel have taken the training. No allegations, legal proceedings, or fines related to corruption or bribery were reported involving Elenia or its senior management. - The management team prepares the group's tax policies in cooperation with the board of directors and the audit committee. A separate tax strategy was adopted in 2023 and is reviewed annually. The strategy covers all relevant taxes associated with the company's operations and reflects Elenia's approach to risk management and sustainability. The CFO leads implementation. - Elenia states that it complies with competition law across all group companies. A competition law policy is in place, and role-based online training is required for personnel and management.

- Finally, the group confirmed that none of its senior management team, including members of senior management at its subsidiaries, have been convicted on any of the four minimum safeguard topics.

Aligned = ✓ Not aligned = ✗

N.A. Article 5: Flexibility in the use of the proceeds of EuGBs

Elenia has confirmed that it will not make use of the flexibility in the use of proceeds. The factsheet states that no proceeds will be allocated to economic activities not aligned with the EU Taxonomy's TSC. We consider Article 5 not applicable for this factsheet.

N.A. Article 6: Financial assets

This factsheet does not include any allocation to financial assets; therefore, we consider article 6 inapplicable.

N.A. Article 7: Capex plan

The issuer plans to allocate an amount equivalent to the nominal proceeds to the financing or refinancing of activities that are already fully aligned with the EU Taxonomy using the gradual approach. Therefore, we consider Article 7 inapplicable.

✓ Article 8: Application of the TSC and grandfathering

Elenia commits to meet the requirements for the gradual approach under Article 8. The issuer confirms that proceeds will be allocated to eligible green expenditures aligned with the TSC applicable at the time of issuance. Where TSC are amended after the issuance of the bond, Elenia states that any unallocated proceeds will be brought into alignment with the amended criteria no later than seven years after the date of application, in accordance with the grandfathering rules set out under Article 8. If there is a risk that proceeds might not be aligned within this time frame, the issuer commits to submit the allocation to external review and to publish a mitigation and alignment plan.

Other Pre-Issuance Review Contents

General information

Date of issuance of the bond(s) or tranches of the bond(s): Not available

Date of publication of the EuGB factsheet: May 22, 2025

Legal name of the issuer: Elenia Verkko Oyj

Legal entity identifier of the issuer: 743700XGU4ZB5G4RPK50

Name of the bond(s) assigned by the issuer: European Green Bonds

International securities identification numbers (ISIN) of the bond(s) and its/their tranches: Not available

Identity and contact details of the external reviewer:

- S&P Global Ratings Europe
- Part 4th Floor, Styne House, Upper Hatch Street, Dublin 2, Ireland
- <https://www.spglobal.com/ratings/en/index>

Lead analyst in a given assessment activity: Salaheddine Soumir, Senior Analyst, Sustainable Finance

Person primarily responsible for approving the review: Luisina Berberian, Director, Sustainable Finance

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Introductory statements, sources, assessment methodologies, and key assumptions

For the EuGB Pre-Issuance Review, we apply our Analytical Approach: European Green Bond External Reviews, which describes S&P Global Ratings' analytical approach for providing an external review of an EuGB, specifically pre-issuance reviews under Regulation (EU) 2023/2631 of the European Parliament and of the Council (EuGBR). Our pre-issuance, post-issuance, and impact report external reviews are point-in-time analyses and are not surveilled. Additionally, they rely on the accuracy, timeliness, and completeness of the information provided by the issuer. Our pre-issuance review of an EuGB factsheet's alignment with the EuGBR does not automatically apply to all transactions under the factsheet.

The EuGBR requires reviewers to state, "this review represents an independent opinion of the external reviewer and is to be relied upon only to a limited degree." Although we do not provide any assurance regarding the information provided to us, we assess whether the issuer has demonstrated how it meets the requirements of the EuGBR. Our EuGB external reviews are not credit ratings, do not assess credit quality, and do not factor into our credit ratings.

The document we assess is the issuer's EuGB pre-issuance factsheet. We review the issuer's rationale in the factsheet as to why its financed economic activities meet the EU Taxonomy's requirements. Nevertheless, we may require additional information from the issuer to make an assessment, given the potential length and specificity of the technical screening criteria and minimum safeguards requirements.

Other information

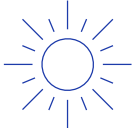
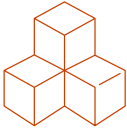
Within the analysis of this SPO, we believe there are relevant aspects that complement the alignment analysis with the EuGBR and provide greater transparency to investors. Refer to the following sections of the report:

- Issuer Sustainability Context--Our opinion on how the financing contributes to addressing what we consider to be the issuer's most material sustainability factors.
- Shades of Green Assessment--Our qualitative assessment of how consistent an economic activity or financial investment is with a low-carbon, climate-resilient future.
- Alignment Assessment--Our opinion on whether the financing documentation aligns with certain third-party published sustainable finance principles and guidelines identified by the issuer.

Mapping To The U.N.'s Sustainable Development Goals

Where the financing documentation references the Sustainable Development Goals (SDGs), we consider which SDGs it contributes to. We compare the activities funded by the financing to the International Capital Markets Association (ICMA) SDG mapping and outline the intended linkages within our SPO analysis. Our assessment of SDG mapping does not affect our alignment opinion.

This factsheet intends to contribute to the following SDGs:

Use of proceeds	SDGs			
Renewable energy				
	7. Affordable and clean energy*	9. Industry, innovation and infrastructure*	11. Sustainable cities and communities*	13. Climate action

*The eligible project categories link to these SDGs in the ICMA mapping.

Related Research

- [Analytical Approach: Second Party Opinions](#), March 6, 2025
- [FAQ: Applying Our Integrated Analytical Approach For Second Party Opinions](#), March 6, 2025
- [Analytical Approach: Shades Of Green Assessments](#), July 27, 2023
- [Analytical Approach: EU Taxonomy Assessment](#), Oct. 31, 2024
- [Analytical Approach: European Green Bond External Reviews](#), Oct. 31, 2024
- [FAQ: Applying Our Analytical Approach For European Green Bond External Reviews](#), Oct. 31, 2024

Analytical Contacts

Primary contact

Salaheddine Soumir
Paris
+ 33 6 0374-8108
Salaheddine.soumir
@spglobal.com

Secondary contacts

Maxime Chul
Paris
maxime.chul
@spglobal.com

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