Second-Party Opinion

Volkswagen Aktiengesellschaft Green Finance Framework

Evaluation Summary

Sustainalytics is of the opinion that the Volkswagen Aktiengesellschaft Green Finance Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2021 and the Green Loan Principles 2021. This assessment is based on the following:

USE OF PROCEEDS The eligible category for the use of proceeds, Clean Transportation, 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 impact and advance the UN Sustainable Development Goals, specifically SDGs 9 and 11.

PROJECT EVALUATION / SELECTION Volkswagen Group's Green Finance Committee will evaluate and select eligible projects in line with the eligibility criteria. Volkswagen's environmental and social risk management processes are applicable to all allocation decisions made under the Framework. Sustainalytics considers these risk management systems to be adequate and the project selection process to be in line with market practice.

MANAGEMENT OF PROCEEDS Volkswagen Group's Green Finance Committee will be responsible for the management and allocation of proceeds to eligible projects. The proceeds will be tracked through Volkswagen's external and internal reporting systems. Volkswagen Group intends to reach full allocation at the time of issuance or funding date of a loan agreement and latest within one year after the issuance. Pending full allocation, unallocated proceeds may be temporarily held in cash or bank deposits. This is in line with market practice.

REPORTING Volkswagen Group intends to report on the allocation of proceeds and corresponding impact in its green finance report which will be published on its website on an annual basis until full allocation. Allocation reporting will include the total amount allocated to the Eligible Green Portfolio, the share of financing versus refinancing, the geographical distribution of eligible projects by region and the balance of unallocated proceeds, if applicable. In addition, Volkswagen Group is committed to reporting on relevant impact metrics. Sustainalytics views Volkswagen Group's allocation and impact reporting as aligned with market practice.

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Issuer Location	Wolfsburg, Germany

Report Sections

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Introduction

Volkswagen Aktiengesellschaft ("Volkswagen Group", "Volkswagen" or the "Group") is a multi-brand company in the automotive industry and headquartered in Wolfsburg, Germany. Volkswagen has two main business divisions, namely the automotive division and financial services division, covering business areas such as passenger cars, commercial vehicles, power engineering, dealer and customer financing, and vehicle leasing. Established in 1937, the Group had approximately 670,000 employees and reported EUR 250.2 billion in revenue as of 31 December, 2021.

Volkswagen developed the Volkswagen Aktiengesellschaft Green Finance Framework (the "Framework") under which it intends to issue green senior unsecured bonds, green junior subordinated bonds, green Schuldscheindarlehen (promissory notes) and green loans, and use the proceeds to finance or refinance, in whole or in part, existing or future projects worldwide that are expected to support the transition to zero-emission vehicles. Up to the date of the Framework, the majority of expenditures have been made in the European Union, particularly in Germany. The Framework defines eligibility criteria in one green category:

1. Clean Transportation

Volkswagen engaged Sustainalytics to review the Volkswagen Aktiengesellschaft Green Finance Framework, dated October 2022, and provide a Second-Party Opinion on the Framework's environmental credentials and its alignment with the Green Bond Principles 2021 (GBP)[1] and the Green Loan Principles 2021 (GLP).[2] The Framework will be published on Volkswagen's website.[3]

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

Sustainalytics' Second-Party Opinion reflects Sustainalytics' independent[4] opinion on the alignment of the reviewed Framework with the 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 2021, 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 1.12, 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 Volkswagen's management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. Volkswagen's representatives have confirmed that: (1) they understand it is the sole responsibility of Volkswagen to ensure that the information provided is complete, accurate or up to date; (2) they have provided Sustainalytics with all relevant information and (3) 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 Volkswagen Aktiengesellschaft.

[1] 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/.
[2] 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/
[3] The Volkswagen Group, "Volkswagen Aktiengesellschaft Green Finance Framework", (2022), at: https://www.volkswagenag.com/en/InvestorRelations/fixed-income/green-finance.html
[4] 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.

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 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. Upon twenty-four (24) months following the evaluation date set stated herein, the Group is encouraged to update the Framework, if necessary, and seek an update to the Second-Party Opinion to ensure ongoing alignment of the Framework with market standards and expectations.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realized 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 Volkswagen has made available to Sustainalytics for the purpose of this Second-Party Opinion.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Volkswagen Aktiengesellschaft Green Finance Framework

Sustainalytics is of the opinion that the Volkswagen Aktiengesellschaft Green Finance Framework is credible and impactful and aligns with the four core components of the GBP and GLP. Sustainalytics highlights the following elements of the Volkswagen Aktiengesellschaft Green Finance Framework:

- Use of Proceeds:
  - The eligible category, Clean Transportation, is aligned with those recognized by the GBP and GLP. Sustainalytics considers that Volkswagen's financing of a portfolio of eligible projects (the "Eligible Green Portfolio") will lead to positive environmental impacts and foster innovation towards sustainable mobility.
  - Volkswagen established a three-year look-back period for its refinancing activities, which Sustainalytics considers to be aligned with market practice.
  - Under the Clean Transportation category, Volkswagen may finance or refinance the development and manufacture of all-electric passenger and light commercial vehicles.[5] The Group will invest in the following types of expenditures:
    - Additions to capitalized development costs. Volkswagen communicated to Sustainalytics that capitalized development costs include all direct and indirect costs that are attributable to the development process in relation to vehicle models, powertrain technology or software development, excluding research activities. An example expenditure is the investment in the development and manufacture of mechatronics platforms for battery electric vehicles (BEVs) or the bodies of the eligible vehicles that are built on these platforms, such as the VW ID. family, or Audi e-tron models.
    - Additions to property, plants and equipment. This may include buildings, site improvements, technical equipment and machinery or other equipment and operating equipment[6] in relation to the platform, powertrain technology and modules of the eligible vehicles.
  - Moreover, Volkswagen confirmed to Sustainalytics that the financing of development costs, property, plants and equipment under the Framework will be limited to BEVs. Sustainalytics considers these expenditures to be aligned with market practice.

[5] All-electric vehicles have zero direct (tailpipe) CO_2 emissions.
[6] The definition of buildings, site improvements, technical equipment and machinery, other equipment and operating equipment can be found in the Notes to the Consolidated Financial Statements in Volkswagen's Annual Report, at: https://annualreport2021.volkswagenag.com/_assets/downloads/entire-vw-ar21.pdf

- Sustainalytics positively notes the intention of Volkswagen to finance solely zero tailpipe emissions vehicles and views such financing as credible green expenditures that contribute to the decarbonisation of the global transportation sector. Sustainalytics also notes that the Framework excludes the financing or refinancing of activities related to plug-in hybrid electric vehicles or vehicles with combustion engines.

- Project Evaluation and Selection:
  - Volkswagen established a Green Finance Committee, which consists of fixed senior management representatives from the Group's Treasury, Sustainability, Accounting, Controlling and Legal departments and will be responsible for evaluating and selecting projects in line with the eligibility criteria under the Framework. Moreover, the Green Finance Committee will replace projects that no longer meet the eligibility criteria following divestment, liquidation or concerns regarding the alignment of the underlying activity with the eligibility criteria.
  - Volkswagen communicated to Sustainalytics that eligible green projects will be drawn from a pool of capital expenditures that Volkswagen determined to be aligned with the EU Taxonomy Climate Delegated Act.[7] Volkswagen's EU Taxonomy assessment is audited on a reasonable assurance basis as part of its financial statements by the Group's independent auditor. Sustainalytics has not assessed the alignment of the eligible green projects with the EU Taxonomy Climate Delegated Act.
  - Volkswagen has in place environmental and social risk management processes that are applicable to all allocation decisions made under the Framework. For more details, please see Section 2.
  - Based on the presence of cross-functional oversight for project selection and the presence of risk management systems, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
  - The Green Finance Committee will be responsible for the management and allocation of proceeds. The proceeds will be tracked through external and internal reporting systems. An amount equivalent to the net proceeds raised from green debt instruments will be earmarked to the Eligible Green Portfolio.
  - Volkswagen intends to reach full allocation at the time of issuance or funding date of a loan agreement, and latest within one year after the issuance. Pending full allocation, unallocated proceeds may be temporarily held in cash or bank deposits.
  - Based on the use of tracking systems and disclosure of the temporary use of proceeds, Sustainalytics considers this process to be in line with market practice.
- Reporting:
  - Volkswagen commits to disclose allocation and corresponding impact reporting in a green finance report, which will be published on its website on an annual basis until full allocation.
  - Allocation reporting will include the total amount allocated to the Eligible Green Portfolio, the share of financing versus refinancing, the geographical distribution of eligible projects by region, and the balance of unallocated proceeds, if applicable.
  - Volkswagen will, where feasible, report on relevant environmental impact metrics, including the number of BEVs sold, estimated annual avoided tailpipe emissions in tCO_2 per year and results of BEV life-cycle assessments.[8]
  - Based on the commitment to both 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 2021

Sustainalytics determined that the Volkswagen Aktiengesellschaft Green Finance Framework aligns with the four core components of the GBP and GLP. For detailed information, please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

[7] Regulation (EU) 2020/852 and associated delegated acts.
[8] As per the Green Finance Framework, Volkswagen considers the following value chain stages as part of its life cycle assessment: (i) extraction of raw materials, (ii) production of materials, (iii) processes at its suppliers and its own site production, (iv) use phase with vehicle emissions and necessary provision of energy, and (v) recycling of the vehicle at the end of its life cycle. Moreover, Volkswagen uses software with its own database for detailed life cycle assessments, which ensures a standardized calculation basis for measuring environmental performance.

Section 2: Sustainability Strategy of Volkswagen

Contribution of Framework to Volkswagen's sustainability strategy

Volkswagen's decarbonization strategy reflects the Group's effort to promote electric mobility and reduce its overall carbon footprint.[9] The Group's decarbonization programme is built on three key principles: (i) measure the amount of CO_2 emissions that can be avoided or reduced; (ii) shift to renewable energy sources in all steps of the value chain; and (iii) compensate for unavoidable CO_2 emissions through climate protection projects, in line with international standards.[10] The programme also includes a life cycle assessment of Volkswagen's vehicles in accordance with the DIN EN ISO 14040 standard,[11,12] which is at the core of the Group's efforts to advance an emission-free and autonomous future of sustainable mobility, as per the Group's NEW AUTO Group Strategy established in July 2021.[13,14]

Volkswagen set a target to achieve net carbon neutrality by 2050 and committed to reduce its carbon footprint for passenger cars and light commercial vehicles by 30% by 2030 compared to a 2018 baseline.[15] Regarding vehicle production, the Group aims to reduce its scope 1 and scope 2 emissions by 50.4% by 2030. This is also aligned with the Science Based Target initiative's 1.5°C trajectory.[16,17] Volkswagen also plans to invest EUR 52 billion in electric mobility by 2026 and offer 75 fully battery-electric car models worldwide by 2029.[18,19] Volkswagen expects to increase its share of electric vehicles in sales in the core markets of the EU, the US and China to more than 50% by 2030.[20] In addition to the Group's focus on electric mobility, Volkswagen aims to achieve its decarbonization goals by integrating renewably generated electricity in the use phase of vehicles and switching production plants' external power supplies to renewable energy.[21]

In 2021, Volkswagen's absolute GHG emissions generated in its manufacturing processes decreased by 21%, compared to a 2010 baseline.[22] In addition, 100% renewably generated electricity was used at 53 Group sites, and nine sites are already carbon neutral.[23] Volkswagen set a requirement for all new contracts with battery suppliers to use 100% renewable power.[24] With the goal to link all charging services to 100% renewably generated electricity, the Group founded the joint venture IONITY with other original equipment manufacturers to set up 18,000 fast charging stations across Europe by 2025. As of 2020, Volkswagen provides charging services at 400 stations.[25] Moreover, Volkswagen supports the expansion of renewable energy on an industrial scale, financing the construction of new wind farms and solar parks in several regions of Europe by 2025.[26]

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[9] Volkswagen, "Sustainability Report", (2021), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2021/Nonfinancial_Report_2021_e.pdf
[10] Volkswagen, "Volkswagen Green Finance Report", (2022), at: https://www.volkswagenag.com/presence/investorrelation/publications/fixed-income/greenfinance/2022/VW%20Green%20Finance%20Report_v_July_2022_final_public%20version.pdf
[11] Ibid.
[12] ISO, "ISO 14040: 2006 – Environmental management – Life cycle assessment – Principles and framework", at: https://www.iso.org/standard/37456.html#:~:text=ISO%2014040%3A2006%20covers%20life%20cycle%20assessment%20%28LCA%29%20studies,methodologies%20for%20the%20individual%20phases%20of%20the%20LCA
[13] Volkswagen, "Volkswagen Green Finance Report", (2022), at: https://www.volkswagenag.com/presence/investorrelation/publications/fixed-income/greenfinance/2022/VW%20Green%20Finance%20Report_v_July_2022_final_public%20version.pdf
[14] Ibid.
[15] Ibid.
[16] Volkswagen, "Sustainability Report", (2021), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2021/Nonfinancial_Report_2021_e.pdf
[17] SBTi, "Business Ambition for 1.5°C", at: https://sciencebasedtargets.org/business-ambition-for-1-5c/
[18] Volkswagen, "Sustainability Report", (2021), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2021/Nonfinancial_Report_2021_e.pdf
[19] Volkswagen, "Volkswagen Green Finance Framework", (2022), at: https://www.volkswagenag.com/en/InvestorRelations/fixed-income/green-finance.html
[20] Volkswagen, "Sustainability Report", (2021), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2021/Nonfinancial_Report_2021_e.pdf
[21] Volkswagen, "Volkswagen Green Finance Report", (2022), at: https://www.volkswagenag.com/presence/investorrelation/publications/fixed-income/greenfinance/2022/VW%20Green%20Finance%20Report_v_July_2022_final_public%20version.pdf
[22] Ibid.
[23] Ibid.
[24] Ibid.
[25] Volkswagen, "Sustainability Report", (2021), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2021/Nonfinancial_Report_2021_e.pdf
[26] Volkswagen, "Volkswagen Green Finance Report", (2022), at: https://www.volkswagenag.com/presence/investorrelation/publications/fixed-income/greenfinance/2022/VW%20Green%20Finance%20Report_v_July_2022_final_public%20version.pdf

Sustainalytics is of the opinion that the Volkswagen Aktiengesellschaft Green Finance Framework is aligned with the Group's overall sustainability strategy and initiatives and will advance the Group's action on its key environmental priorities.

Approach to managing environmental and social risks associated with the projects

Sustainalytics recognizes that the net proceeds from the instruments issued under the Framework will be directed towards eligible projects that are expected to lead to positive environmental impact. However, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks commonly associated with the eligible projects could include issues related to: emissions, effluents and waste generated across vehicle manufacturing processes (EE&W); environmental and social impacts of supply chains; occupational health and safety (OHS); and product governance.

Sustainalytics is of the opinion that Volkswagen is able to manage or mitigate potential risks by implementing the following:

- In support of EE&W risk mitigation, the Group established environmental and energy management systems in accordance with the ISO 14001 and ISO 50001 standards. [27,28,29]
- Volkswagen also complies with the EU regulation 2019/631 and sets CO_2 emission performance standards for new passenger cars and new light commercial vehicles.[30] Moreover, the Group's business activities are in accordance with the New European Driving Cycle (NEDC), which assesses CO_2 consumption and measures electric energy consumption and electric range for electric vehicles.[31] Volkswagen also uses the Worldwide Harmonized Light Vehicle Test Procedure, which serves as an upgrade to the NEDC.[32]
- Volkswagen developed a risk management approach for environmental issues and related compliance obligations, which covers operational risk management and internal controls on the business unit level, Group risk management and Group internal audit, contributing to the mitigation of EE&W risks.[33,34] As part of its environmental management procedures, the Group identifies energy, CO_2 emissions, water, waste and volatile organic compounds as production-related environmental impact KPIs, targeting 45% reduction per vehicle by 2025 compared to a 2010 baseline.[35] Additionally, the Group commits to recycling vehicles at the end of their life cycle, including the recycling of batteries at the Salzgitter site as of 2021, focusing on the recyclability of materials used in the development phase, and avoiding pollutants.[36]
- With regard to environmental and social impacts of supply chains, the Group takes a risk-based approach to conduct raw material supply chain due diligence in line with the recommendations of the OECD Minerals Guidance.[37] The approach includes the identification, assessment and mitigation of human rights risks such as child labour, modern slavery and labour rights, and environmental risks such as the use of hazardous materials and deep-sea mining in respective raw material supply chains. As part of this, Volkswagen selects priority raw materials based on a severity assessment of potential human rights risks and identified a list of 16 priority raw materials.[38]
- In 2021, Volkswagen conducted an analysis based on the Do No Significant Harm criteria of Activity 3.3 of the EU Taxonomy Climate Delegated Act (Manufacture of low-carbon technologies for transport) for each vehicle production site that manufactures assets that are eligible for financing

[27] ISO, "ISO 14001 family – Environmental management", at: https://www.iso.org/iso-14001-environmental-management.html
[28] ISO, "ISO 50001 – Energy management", at: https://www.iso.org/iso-50001-energy-management.html
[29] Volkswagen, "Group Environmental Policy Statement", (2021), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/Environmental-Policy-Statement-Volkswagen-Group.pdf
[30] EUR-Lex, "Regulation (EU) 2019/631 of the European Parliament and of the Council", (2019), at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R0631
[31] UNECE, "Regulation 101 – CO2 emission/fuel consumption", at: https://unece.org/transport/vehicle-regulations-wp29/standards/addenda-1958-agreement-regulations-101-120
[32] UNECE, "UN Regulation No. 254 – Worldwide harmonized Light vehicles Test Procedure", at: https://unece.org/transport/documents/2021/02/standards/un-regulation-no-154-worldwide-harmonized-light-vehicles-test
[33] Volkswagen, "Group Environmental Policy Statement", (2021), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/Environmental-Policy-Statement-Volkswagen-Group.pdf
[34] Volkswagen, "Annual Report", (2021), at: https://www.volkswagenag.com/presence/investorrelation/publications/annual-reports/2022/volkswagen/Y_2021_e.pdf
[35] Volkswagen, "Sustainability Report", (2021), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2021/Nonfinancial_Report_2021_e.pdf
[36] Ibid.
[37] OECD, "OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas", (2016), at: https://www.oecd.org/corporate/mne/mining.htm
[38] Volkswagen, "Responsible Raw Materials Report", (2021), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/supply-chain/Volkswagen-Group-Responsible-Raw-Materials-Report-2021.pdf

under the Framework. Of the approximately 30 sites included, the majority are located in the EU, with some in the United Kingdom, Turkey, USA, Mexico, Brazil and China.

- Furthermore, the Group incorporates international principles in its business practices to encourage the safeguarding of human and labour rights, environmental protection and anti-corruption: (i) the UN Global Compact,[39] (ii) the OECD Guidelines for Multinational Enterprises,[40] and (iii) the European Convention on Human Rights.[41] In addition, Volkswagen adopted a declaration on social rights, industrial relations and business, and human rights, including principles and objectives in line with applicable laws in different countries.[42] Further, a human rights risk assessments for 782 controlled Group companies worldwide was conducted in 2021, covering all sites that manufacture assets eligible under the Framework.
- In relation to OHS and product governance risks, Volkswagen's Code of Conduct supports compliance with statutory requirements and regulations, and provides guidance on the Group's conduct on human rights, product conformity and safety, environmental protection, and occupational safety and healthcare. As part of product governance, Volkswagen monitors compliance with regulations systematically and through product surveillance.[43] Moreover, the Group developed an occupational health and safety policy, including principles to ensure a healthy working environment, address work-related hazards and risks, and protect physical and mental health.[44]

Additionally, Sustainalytics' research identified that Volkswagen is exposed to significant controversies related to its products' carbon impacts and emissions as well as related regulatory, governance and reputational issues. One such case is the emissions and fuel use measurement controversy that started in 2015,[45] which eventually affected 11 million Volkswagen diesel vehicles worldwide.[46,47] Based on Sustainalytics' controversies assessment of the Group, Volkswagen has implemented corrective actions to enhance product compliance and conformity checks, and has since been working with an appointed auditor that is examining the implementation of measures to strengthen compliance, reporting and monitoring systems. Sustainalytics acknowledges that Volkswagen developed risk mitigation measures, such as forming a task force led by the Group's internal auditor to review processes and report and control systems, particularly on engine control unit software development, emission classification and escalation management; improving its testing practices; and involving third-party evaluation of emissions tests. Furthermore, Sustainalytics notes that Volkswagen intends to use the proceeds from green debt instruments issued under the Framework to finance and refinance expenditures that are not linked to vehicles with combustion engines and thus are not directly impacted by the controversies mentioned above.

Based on these policies, standards and assessments, Sustainalytics is of the opinion that Volkswagen has implemented adequate measures and is well positioned to manage and mitigate environmental and social risks commonly associated with projects in the eligible category.

Section 3: Impact of Use of Proceeds

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

[39] Volkswagen, "UN Global Compact – 10 Principles", (2021), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-extern/1999%20Global%20Compact%20Principles%20EN.pdf
[40] Volkswagen, "OECD Guidelines for Multinational Enterprises", (2008), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-extern/2000%20OECD%20Guidelines%20for%20MNEs%20EN.pdf
[41] Volkswagen, "European Convention on Human Rights", at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-extern/1950%20EU%20European%20Convention%20on%20HR%20EN.pdf
[42] Volkswagen, "Declaration by the Volkswagen Group on social rights, industrial relations and business and human rights", at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/201209-sozialcharta_en.pdf
[43] Volkswagen, "Volkswagen Group Code of Conduct", (2022), at: https://www.volkswagenag.com/presence/konzern/compliance-und-risikomanagement/compliance/coc_vw_konzern_en_interaktiv_220704.pdf
[44] Volkswagen, "Volkswagen Group occupational health and safety policy", (2022), at: https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/Organizational-Health-and-Safety-Policy-Volkswagen-Group.pdf
[45] United States Environmental Protection Agency, "Learn About Volkswagen Violations", at: https://www.epa.gov/vw/learn-about-volkswagen-violations
[46] Deutsche Welle, "VW pays millions in 'Dieselgate' settlement in Britain", (2022), at: https://www.dw.com/en/vw-pays-millions-in-dieselgate-settlement-in-britain/a-61936459
[47] Reuters, "Volkswagen faces Israeli emissions class action suit after court ruling", (2022), at: https://www.reuters.com/business/autos-transportation/volkswagen-faces-israeli-emissions-class-action-suit-after-court-ruling-2022-09-29/

Importance of clean transportation in reducing GHG emissions in the EU and globally

In 2020, the transportation sector accounted for 23% of global CO_2 emissions, with road vehicles accounting for approximately 75% of it.[48,49] Emissions from transportation are expected to grow at a faster rate than for any other sector, posing a major challenge to efforts to reduce emissions in line with the Paris Climate Agreement.[50] According to the International Energy Agency, the transport sector's emissions need to reduce by 20% by 2030 relative to 2022 to achieve net zero emissions by 2050.[51]

The EU is responsible for 15% of global transportation CO_2 emissions, with road transportation accounting for 26% of EU emissions from transport.[52] In order to achieve a climate-neutral economy by 2050 under the EU Green Deal, emissions from the transportation sector would need to be reduced by 90% compared to 1990.[53] According to the European Environment Agency, electric vehicles (EV) can significantly lower CO_2 emissions and air pollutants such as nitrogen oxides (NOx) from road transport.[54] In light of this, the EU has set a target to have 30 million zero-emission vehicles on roads, with three million EV charging points installed by 2030.[55] As a baseline comparative, in 2020, the EU had more than 1.3 million registered BEVs, but fewer than 225,000 charging points.[56,57] In 2021, the EU's Fit for 55 package proposed to raise the emission reduction target for the road transportation sector to 55% reduction for cars and 50% for vans by 2030 compared to 2021, aiming to achieve 100% emissions reduction for cars and vans by 2035.[58]

Based on the above context, Sustainalytics is of the opinion that Volkswagen's financing of BEVs is expected to contribute to reducing GHG emissions from the ground transportation sector and support the EU and global transition to a decarbonized economy.

Alignment with/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 Volkswagen Aktiengesellschaft Green Finance Framework advance the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Clean Transportation	9. Industry, Innovation, and Infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
	11. Sustainable cities and communities	11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

48 IEA, "Transport: Improving the sustainability of passenger and freight transport", at: https://www.iea.org/topics/transport
49 IEA, "Global Energy Review: CO2 Emissions in 2020", (2021), at: https://www.iea.org/articles/global-energy-review-co2-emissions-in-2020
50 World Resources Institute, "Everything You Need To Know About The Fastest Growing Source Of Global Emissions: Transport", (2019), at: https://www.wri.org/blog/2019/10/everything-you-need-know-about-fastest-growing-source-global-emissions-transport
51 IEA, "Tracking Transport 2022", (2021) at: https://www.iea.org/reports/transport
52 Statista, "Transportation emissions in the European Union - Statistics & Facts", (2022), at: https://www.statista.com/topics/7968/transportation-emissions-in-the-eu/#topicHeader__wrapper
53 European Commission, "Factsheet – The Transport and Mobility Sector", (2020), at: https://ec.europa.eu/commission/presscorner/detail/en/fs_20_2350
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Conclusion

Volkswagen has developed the Volkswagen Aktiengesellschaft Green Finance Framework, under which it may issue green senior unsecured bonds, green junior subordinated bonds, green Schuldscheindarlehen (promissory notes) and green loans, and use the proceeds to finance clean transportation projects. Sustainalytics considers that the projects funded by the proceeds are expected to provide positive environmental impact.

The Volkswagen Aktiengesellschaft Green Finance Framework outlines a process by which proceeds will be tracked, allocated and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that the Volkswagen Aktiengesellschaft Green Finance Framework is aligned with the overall sustainability strategy of the Group and that the green use of proceeds are expected to contribute to the advancement of the UN Sustainable Development Goals 9 and 11. Additionally, Sustainalytics is of the opinion that the Group has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the proceeds.

Based on the above, Sustainalytics is confident that Volkswagen Group is well positioned to issue green bonds and loans and other instruments, and that the Volkswagen Aktiengesellschaft Green Finance Framework is robust, transparent and in alignment with the four core components of the Green Bond Principles 2021 and Green Loan Principles 2021.

Appendix

Appendix 1: Green Bond / Green Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	Volkswagen Group
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:	Volkswagen Aktiengesellschaft Green Finance Framework
Review provider's name:	Sustainalytics
Completion date of this form:	October 12, 2022
Publication date of review publication:	

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBP:

☒	Use of Proceeds	☒	Process for Project Evaluation and Selection
☒	Management of Proceeds	☒	Reporting

ROLE(S) OF REVIEW PROVIDER

☒	Consultancy (incl. 2nd opinion)	☐	Certification
☐	Verification	☐	Rating
☐	Other *(please specify)*:		

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW *(if applicable)*

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section *(if applicable)*:

The eligible category for the use of proceeds, Clean Transportation, 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 impact and advance the UN Sustainable Development Goals, specifically SDGs 9 and 11.

Use of proceeds categories as per GBP:

☐ Renewable energy

☐ Energy efficiency

☐ Pollution prevention and control

☐ Environmentally sustainable management of living natural resources and land use

☐ Terrestrial and aquatic biodiversity conservation

☒ Clean transportation

☐ Sustainable water and wastewater management

☐ Climate change adaptation

☐ Eco-efficient and/or circular economy adapted products, production technologies and processes

☐ Green buildings

☐ Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBP

☐ Other *(please specify)*:

If applicable please specify the environmental taxonomy, if other than GBP:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Volkswagen Group's Green Finance Committee will evaluate and select eligible projects in line with the eligibility criteria. Volkswagen's environmental and social risk management processes are applicable to all allocation decisions made under the Framework. Sustainalytics considers these risk management systems to be adequate and the project selection process to be in line with market practice.

Evaluation and selection

☒ Credentials on the issuer's environmental sustainability objectives

☒ Documented process to determine that projects fit within defined categories

☒ Defined and transparent criteria for projects eligible for Green Bond proceeds

☒ Documented process to identify and manage potential ESG risks associated with the project

☒ Summary criteria for project evaluation and selection publicly available

☐ Other *(please specify):*

Information on Responsibilities and Accountability

☒ Evaluation / Selection criteria subject to external advice or verification

☐ In-house assessment

☐ Other (please specify):

3. MANAGEMENT OF PROCEEDS

Overall comment on section *(if applicable)*:

Volkswagen Group's Green Finance Committee will be responsible for the management and allocation of proceeds to eligible projects. The proceeds will be tracked through Volkswagen's external and internal reporting systems. Volkswagen Group intends to reach full allocation at the time of issuance or funding date of a loan agreement and latest within one year after the issuance. Pending full allocation, unallocated proceeds may be temporarily held in cash or bank deposits. This is in line with market practice.

Tracking of proceeds:

☒ Green Bond proceeds segregated or tracked by the issuer in an appropriate manner

☒ Disclosure of intended types of temporary investment instruments for unallocated proceeds

☐ Other *(please specify)*:

Additional disclosure:

☐ Allocations to future investments only

☒ Allocations to both existing and future investments

☐ Allocation to individual disbursements

☒ Allocation to a portfolio of disbursements

☒ Disclosure of portfolio balance of unallocated proceeds

☐ Other *(please specify)*:

4. REPORTING

Overall comment on section (if applicable):

Volkswagen Group intends to report on the allocation of proceeds and corresponding impact in its green finance report which will be published on its website on an annual basis until full allocation. Allocation reporting will include the total amount allocated to the Eligible Green Portfolio, the share of financing versus refinancing, the geographical distribution of eligible projects by region and the balance of unallocated proceeds, if applicable. In addition, Volkswagen Group is committed to reporting on relevant impact metrics. Sustainalytics views Volkswagen Group's allocation and impact reporting as aligned with market practice.

Use of proceeds reporting:

☐ Project-by-project

☒ On a project portfolio basis

☐ Linkage to individual bond(s)

☐ Other *(please specify):*

Information reported:

☒ Allocated amounts

☐ Green Bond financed share of total investment

☒ Other *(please specify)*: The share of financing versus refinancing, the geographical distribution of eligible projects by region, and the balance of unallocated proceeds

Frequency:

☒ Annual

☐ Semi-annual

☐ Other (please specify):

Impact reporting:

☐ Project-by-project

☒ On a project portfolio basis

☐ Linkage to individual bond(s)

☐ Other (please specify):

Information reported (expected or ex-post):

☒ GHG Emissions / Savings

☐ Energy Savings

☐ Decrease in water use

☒ Other ESG indicators (please specify): Number of battery electric vehicles sold, results of battery electric vehicles' life-cycle assessments

Frequency

☒ Annual

☐ Semi-annual

☐ Other (please specify):

Means of Disclosure

☐ Information published in financial report

☐ Information published in sustainability report

☐ Information published in ad hoc documents

☒ Other (please specify): Information published in the Group's green finance report

☒ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review): Volkswagen's EU Taxonomy reporting will be externally audited. The Eligible Green Portfolio financed by the proceeds of green instruments issued under this Framework is subject to this audit.

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

☐ Consultancy (incl. 2nd opinion)

☐ Certification

☐ Verification / Audit

☐ Rating

☐ Other *(please specify):*

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

i. Second-Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.

ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.

iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.

iv. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

Disclaimer

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

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