

Second-Party Opinion

Vonovia Green Bond Framework



Evaluation Summary

Sustainalytics is of the opinion that the Vonovia Green Bond Framework is credible and impactful and aligns to the four core components of the Green Bond Principles 2018. This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds – Green Buildings and Energy Efficiency, Renewable Energy, and Clean Transportation – are aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers that investments in the eligible categories could increase the environmental performance and energy efficiency of Vonovia's building stock and advance the UN Sustainable Development Goals, specifically SDGs 7, 9, and 11.



PROJECT EVALUATION / SELECTION Vonovia's internal process in evaluating and selecting projects is managed by its Green Finance Committee ("GFC"), which is chaired by the Head of Treasury and Finance and comprises representatives from the Finance Department, Sustainability Department, and Portfolio Management. The GFC will meet semi-annually to ensure that allocation is in line with the eligibility criteria. Sustainalytics considers the project selection process to be in line with market practice.



MANAGEMENT OF PROCEEDS Vonovia's Finance department will be responsible for earmarking proceeds from the green bonds to the established Green Project Register and track this process in accordance with internal systems. Vonovia intends to reach full allocation within 24 months after issuance. Should any proceeds remain unallocated, they will be held in Vonovia's liquidity portfolio in cash, cash equivalents, or other similar instruments. Sustainalytics considers this as in line with market practice.



REPORTING Vonovia intends to report on the allocation of proceeds on its website on an annual basis until full allocation. The allocation reporting will include details such as amount of outstanding green funding, total allocation to the Eligible Green Register, the proportion of financing vs refinancing, geographical distribution, project examples, and balance of unallocated amounts. In addition, Vonovia is committed to reporting on relevant impact metrics. Sustainalytics views Vonovia's allocation and impact reporting as aligned with market practice.

Evaluation Date	February 22, 2021
Issuer Location	Bochum, Germany

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Introduction

Vonovia (“Vonovia” or the “Company”) is a residential real estate company founded in 2015 with headquarters in Bochum, Germany. Vonovia owns and/or manages approximately 490,000 residential units with a total value of around €56 billion across 400 locations in German, Swedish and Austrian cities, providing homes for over one million people.

Vonovia has developed the Vonovia Green Bond Framework (the “Framework”) under which it intends to issue green bonds and use the proceeds to finance and/or refinance, in whole or in part, existing and/or future projects that will contribute to the decarbonization of Vonovia’s building stock. The Framework defines eligibility criteria in three areas:

1. Green Buildings and Energy Efficiency
2. Renewable Energy
3. Clean Transportation

Vonovia engaged Sustainalytics to review the Vonovia Green Bond Framework, dated February 2021, and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018 (GBP).¹ This Framework has been published in a separate document.²

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

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent³ 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 2018, as administered by ICMA;
- 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 1.6.1, 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 Vonovia’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. Vonovia representatives have confirmed (1) they understand it is the sole responsibility of Vonovia to ensure that the information provided is complete, accurate or 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 Vonovia.

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 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.

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 Vonovia Green Bond Framework is available on Vonovia’s website at: <https://investoren.vonovia.de/#>

³ 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.

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

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Vonovia Green Bond Framework

Sustainalytics is of the opinion that the Vonovia Green Bond Framework is credible and impactful, and aligns to the four core components of the GBP. Sustainalytics highlights the following elements of Vonovia's Green Bond Framework:

- Use of Proceeds:
 - The eligible categories – Green Buildings and Energy Efficiency, Renewable Energy, and Clean Transportation – are aligned with those recognized by the GBP. Sustainalytics anticipates that the proceeds of the bond will increase the environmental performance and energy efficiency of Vonovia's building stock.
 - Vonovia has defined a look-back period of 36 months for refinancing activities, which Sustainalytics considers to be in line with market practice.
 - Under the Green Buildings and Energy Efficiency category, Vonovia may rely on third-party certification schemes or Energy Performance Certificates (EPCs) for its investment related to the acquisition, construction, and/or refurbishments of new and existing residential buildings.
 - Eligible certifications are LEED (Gold or above), DGNB (Gold or above), and BREEAM (Excellent or above). Sustainalytics views these certification schemes as credible, and the selected levels as impactful (see Appendix 1 for an overview of each certification scheme).
 - Eligible EPC ratings are defined as B and above for Germany and Sweden, and A for Austria. Sustainalytics considers ratings of A and B in Sweden and Germany and A in Austria to be aligned with market expectations for residential, based on the market share covered by these levels and/or the eligibility of these criteria in third-party accreditations.⁴
 - Also with the Green Buildings and Energy Efficiency category, Vonovia intends to invest in the modernization of existing residential buildings that lead to a 30% improvement of energy efficiency compared to baseline. Sustainalytics views the use of a 30% improvement threshold as aligned with market practice for building refurbishments.
 - Within the Renewable Energy category, Vonovia intends to invest in the installation of renewable energy systems and other technologies to improve building energy efficiency.
 - Renewable energy generation systems may include solar photovoltaic panels, solar thermal systems, and geothermal energy. Sustainalytics anticipates that "geothermal" systems will be shallow ground-source heat pumps, which are not anticipated to have substantial direct emissions, and therefore considers these technologies to be aligned with market practice.
 - The Framework also defines heat pumps as eligible products to improve efficiency. Sustainalytics considers financing of high-performing electric heat pumps to be aligned with market practice for green products, based on the lack of direct emissions and high efficiency values.
 - Vonovia also intends to invest in "innovation projects", which are implementations of emerging technologies intended to improve building energy performance and/or

⁴ EPC A and B are recognized proxies for CBI Certification in Germany, see: <https://www.climatebonds.net/standard/buildings/residential/calculator>, and in both Germany and Sweden ensure that a building is within the top 15% in energy performance. The EU Taxonomy considers EPC A to be eligible in all jurisdictions.

increase the utilization of renewable energy. The Framework cites hydrogen-based energy storage and upgrade building management systems as potential applications. Sustainalytics views positively the objective of these activities, while noting the wide variety of potential project types and therefore potential wide range of levels of impact.

- As part of the Clean Transportation category, Vonovia may finance infrastructure development for electric or other zero-emission vehicles. Sustainalytics considers financing infrastructure for vehicle electrification to be aligned with market practice.
- Project Evaluation and Selection:
 - Vonovia has established a Green Finance Committee ("GFC"), chaired by the Head of Treasury and Finance, which will be responsible for the internal project evaluation and selection process. The Committee is comprised of representatives from Vonovia's Finance Department, Sustainability Department, and Portfolio Management. The GFC will meet on a semi-annual basis to review proposed allocations, ensure that the allocation is in line with the eligibility criteria, manage future updates to the Framework, and replace projects that are beyond their maturity date.
 - Based on the reliance on a formal committee, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
 - Vonovia will deposit the net proceeds of the green bonds in the Company's general account, where they will be earmarked for allocation to the Eligible Green Register. Vonovia's finance department will be responsible for tracking this process in the Company's internal systems. Vonovia intends to reach full allocation within 24 months after issuance. Should any proceeds remain unallocated, Vonovia will hold unallocated proceeds in the Company's liquidity portfolio in cash or cash equivalent instruments.
 - Based on these measures, Sustainalytics considers this process to be in line with market practice.
- Reporting:
 - Vonovia intends to report on the allocation of proceeds on its website on an annual basis until full allocation of the bond proceeds. The allocation reporting will include the total amount of outstanding green bond proceeds, total amount of proceeds allocated to the Eligible Green Register, share of financing vs refinancing, balance of unallocated proceeds, and description and geographical distribution of projects financed. In addition, Vonovia intends to publish an impact report including on relevant indicators such as level of certification, energy performance (kWh/m² per year), renewable energy capacity installed (MW), renewable energy generated (MWh per year), and annual greenhouse gas emission reduced/avoided (tCO₂).
 - Based on these commitments to both impact and allocation reporting, Sustainalytics considers this process to be in line with market practice.

Alignment with Green Bond Principles 2018

Sustainalytics has determined that the Vonovia Green Bond Framework aligns to the four core components of the GBP. For detailed information please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

Section 2: Sustainability Performance of Vonovia

Contribution of framework to Vonovia's sustainability strategy⁵

Sustainalytics is of the opinion that Vonovia demonstrates a strong commitment to sustainability and has defined five environmental focus areas, three of which are material to the environmental objectives of the Framework, namely: (i) energy efficiency and greenhouse gas reduction, (ii) environmental protection in renovation and construction, and (iii) environmental protection in the portfolio. As part of this focus, Vonovia has defined the overarching ambitions of reducing carbon emissions in its portfolio in line with climate protection targets⁶, building new buildings with energy-optimized design, expanding innovation in renewable

⁵ Vonovia 2019 Sustainability Report, at: <https://reports.vonovia.de/2019/sustainability-report/>

⁶ Climate protection targets included in Germany's Climate Action Plan 2050

energy, and promoting biodiversity at its building locations. In addition, Vonovia has been participating in the Carbon Disclosure Project's ("CDP") Climate Change Program.⁷

As part of Vonovia's commitment to energy efficiency and greenhouse gas emission reductions, in 2017 the Company set a target of renovating approximately 3% of its building portfolio every year. In 2019 Vonovia modernized 3.7% of its building stock, through which it achieved 16,000 tonnes carbon reduction. As part of Vonovia's 2020 goals, the Company is committed to keeping the modernization rate at around 3% to continuously improve energy efficiency and reduce carbon emissions. Moreover, Vonovia aims to reduce its environmental footprint by transitioning to renewable sources of energy and decentralizing energy supplies. In 2019, the Company introduced its "1,000 roofs" program, which defines the goal of equipping at least 1,000 roofs with photovoltaic roofs by 2021. Vonovia erected 84 new photovoltaic systems last year in addition to the over 200 systems that are in operation and commits to expanding on the "1,000 roofs" initiatives as part of its 2020 ambitions.

As part of Vonovia's commitment to reducing environmental impacts, the Company focuses on low-emission, sustainable construction and ecological design that contributes to the energy-efficient operation of new buildings. Under this strategic focus, Vonovia aims to achieve green building certifications and energy ratings as a means to ensure the long-term sustainability of new development projects. In 2019, over 20% of the Company's new development projects were awarded green building certifications such as DGNB or OGNI. As part of its 2020 goals, Vonovia aims to achieve energy efficiency class A or above for 85% of new development projects, which is around 900 completions. In addition, Vonovia has implemented waste management and recycling management systems. In 2019, the Company saved approximately 800 tCO₂ as a result of strengthened recycling measures related to Vonovia's windows replacement programs. Furthermore, under environmental protection, Vonovia places a strong emphasis on sustainable building materials and takes environmental considerations into account when selecting raw construction materials. To ensure that environmental considerations are in place at every aspect of new constructions, Vonovia promotes alternative forms of mobility by installing electric charging stations at some of their development projects.

As part of Vonovia's focus on environmental protection, Vonovia set the goal for itself to become a market leader in designing a sustainable residential environment. The Company has implemented measures to safeguard biodiversity, reduce and eliminate harmful greenhouse gases, adapt to climate change, and use resources as efficiently as possible. As part of resource use efficiency, Vonovia is committed to reducing energy consumption in new development through the installation of LED lighting and energy-saving devices, reducing water consumption, and increasing recycling programs.

Sustainalytics is of the opinion that the Vonovia Green Bond Framework is aligned with the Company's overall sustainability strategy and initiatives, that the categories of the Framework are aligned with the three material environmental areas identified by the Strategy, and will further the Company's action on its key environmental priorities.

Well-positioned to address common environmental and social risks associated with the projects

While Sustainalytics recognizes that the net proceeds from the bond(s) issued under the Framework will be directed towards eligible projects that are anticipated to have positive environmental impacts, Sustainalytics recognizes that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks associated with the eligible projects could include occupational health and safety, effluents and waste generated in construction.

Sustainalytics is of the opinion that Vonovia is able to manage and/or mitigate these potential risks through implementation of the following:⁸

- Vonovia has implemented in-house environmental, health and safety regulations. The Company has defined measures to ensure the proper disposal of materials from construction sites including engaging specialized subcontractors, fully documenting and analyzing disposed waste, monitoring construction sites on a regular basis, and training employees on proper waste disposal. Moreover, Vonovia requires through long-term supplier declarations that all materials used in construction are traceable.
- To minimize the risk of hazardous or toxic materials used in construction, Vonovia's procurement department is responsible for arranging the purchase of building materials. The Company has implemented TUV Rhineland Toxic Materials Management System, which ensures that all relevant information is recorded, documented, and evaluated.

⁷ CDP's climate change program aims to reduce companies' greenhouse gas emissions and mitigate climate change risk

⁸ Vonovia 2019 Sustainability Report, at: <https://reports.vonovia.de/2019/sustainability-report/>

- As part of its occupational health and safety measures, Vonovia has established and implemented Group-wide occupational health and safety standards, as part of which regular safety checks are conducted. Furthermore, Vonovia organizes regular knowledge sharing and training sessions on occupational safety for employees and has dedicated Safety officers. To ensure effective occupational safety mitigation at Vonovia's construction sites, the Company works with external occupational safety experts and continuously monitors the effectiveness of the implemented risk mitigation measures at external service providers.
- Vonovia's Business Partner Code ensures that all subcontractors, contractors, and business partners comply with legal, environmental, social, ethical, and economic requirements. In addition, Vonovia has established a Group-wide supplier assessment system and regularly monitors external parties' compliance with Vonovia's Code of Conduct.
- Additionally, the projects financed under the Framework will take place in jurisdictions recognized as Designated Countries under the Equator Principles, indicating robust environmental and social governance legislation systems and institutional capacity in those countries.⁹

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

Section 3: Impact of Use of Proceeds

All three use of proceeds categories are aligned with those recognized by the GBP. Sustainalytics has focused on the importance of green and energy efficient buildings where the impact is specifically relevant in the local context.

Importance of Green and Energy-Efficient Buildings in Germany

Collectively, the EU's building sector accounts for approximately 40% of total energy consumption and 36% of CO₂ emissions, making it the single largest emitting sector of the economy.¹⁰ Around 75% of buildings in the EU are energy inefficient, and the current rate of renovation is less than 1% annually. Building renovation has the potential to reduce the EU's total energy consumption by 5-6% and CO₂ emissions by 5% if renovation rates increase.¹¹ Therefore, improving the energy efficiency of the EU's building stock has a key role to play in achieving the EU's goal of carbon neutrality by 2050 as set out in the Green Deal.¹²

Being the 4th largest and most populated country in the EU, Germany plays an important role in the EU meeting its climate goals.¹³ The operation of buildings accounts for 35% of Germany's total final energy consumption.¹⁴ Similar to European levels, only 1.5% of Germany's building stock is renovated each year.¹⁵ Realizing the potential impact of increasing the energy efficiency of Germany's buildings, the German government aims to achieve a virtually climate-neutral building stock by 2050.¹⁶ In order to achieve that goal, Germany has defined an interim target of 67% emissions reduction by 2030 compared to 1990 levels.¹⁶ As part of the government's strategy for the building sector, through a combination of energy conservation and use of renewable energy, Germany aims to cut the primary energy consumption of its building sector by 80% by 2050 compared with 2008 levels.¹⁷ In light of the ambitions of the German government to cut emissions by a significant amount before 2050, there is a demonstrated need for investments in renewable energy, energy efficiency, and green buildings.

Sustainalytics is of the opinion that the projects financed under the Green Buildings and Energy Efficiency and Renewable Energy categories are impactful and could help to reduce the environmental footprint of Germany's buildings sector, as well as assisting Germany and the EU in meeting its short and long-term climate targets.

⁹ Equator Principles, "Designated Countries", (2020), at: <https://equator-principles.com/designated-countries/>

¹⁰ European Commission, "EU Science Hub: Buildings", at: <https://ec.europa.eu/jrc/en/energy-efficiency/buildings>

¹¹ European Commission, "Energy Efficiency in Buildings", at: https://ec.europa.eu/info/news/focus-energy-efficiency-buildings-2020-feb-17_en

¹² European Commission, "European Climate Law", (2020), at: https://ec.europa.eu/clima/policies/eu-climate-action/law_en

¹³ European Union, "Living in the EU", at: https://europa.eu/european-union/about-eu/figures/living_en

¹⁴ Federal Ministry for Economic Affairs and Energy, "Energy Transition in the Building Sector", at: <https://www.bmwi.de/Redaktion/EN/Dossier/enhancing-energy-efficiency-in-buildings.html>

¹⁵ European Commission, "Building Stock Observatory", at: https://ec.europa.eu/energy/news/building-stock-observatory-new-database-european-building-stock-and-its-energy-performance_en?redir=1

¹⁶ Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, "Climate Action Plan 2050", at: <https://www.bmu.de/en/topics/climate-energy/climate/national-climate-policy/greenhouse-gas-neutral-germany-2050/>

¹⁷ Clean Energy Wire, Germany's greenhouse gas emissions and energy transition targets", at: <https://www.cleanenergywire.org/factsheets/germanys-greenhouse-gas-emissions-and-climate-targets>

Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 by the United Nations General Assembly and form an agenda for achieving sustainable development by the year 2030. The bond(s) issued under the Vonovia Green Bond Framework advances the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Green Buildings and Energy Efficiency	11. Sustainable Cities and Communities 9. Industry, Innovation and Infrastructure 7. Affordable and Clean Energy	11.3 By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management in all countries. 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 7.3 By 2030, double the global rate of improvement in energy efficiency
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Clean Transportation	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

Conclusion




Vonovia has developed the Vonovia Green Bond Framework under which it will issue green bonds and use the proceeds to finance and/or refinance Green Buildings and Energy Efficiency, Renewable Energy, and Clean Transportation projects. Sustainalytics considers that the projects funded by the green bond proceeds are expected to have provide positive environmental impact.

The 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 Framework is aligned with the overall sustainability strategy of the company and that the green use of proceeds categories will contribute to the advancement of the UN Sustainable Development Goals 7, 9, and 11. Additionally, Sustainalytics is of the opinion that Vonovia has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Based on the above, Sustainalytics is confident that Vonovia is well-positioned to issue green bonds and that the Vonovia Green Bond Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles 2018.

Appendices

Appendix 1: Certification Schemes for Green Buildings

	BREEAM	LEED	DGNB
Background	BREEAM (Building Research Establishment Environmental Assessment Method) was first published by the Building Research Establishment (BRE) in 1990. Based in the UK. Used for new, refurbished and extension of existing buildings.	Leadership in Energy and Environmental Design (LEED) is a US Certification System for residential and commercial buildings used worldwide. LEED was developed by the non-profit U.S. Green Building Council (USGBC).	The German Green Building Certification or DGNB was developed in 2007 by the non-profit German Sustainable Building Council in partnership with the German Federal Ministry of Transport, Building, and Urban Affairs in order to actively encourage sustainable building.
Certification levels	<ul style="list-style-type: none"> • Pass • Good • Very Good • Excellent • Outstanding 	<ul style="list-style-type: none"> • Certified • Silver • Gold • Platinum 	<ul style="list-style-type: none"> • Bronze • Silver • Gold • Platinum
Areas of Assessment	<ul style="list-style-type: none"> • Energy • Land Use and Ecology • Pollution • Transport • Materials • Water • Waste • Health and Wellbeing • Innovation 	<ul style="list-style-type: none"> • Energy and atmosphere • Sustainable Sites • Location and Transportation • Materials and resources • Water efficiency • Indoor environmental quality • Innovation in Design • Regional Priority 	<ul style="list-style-type: none"> • Environment • Economic • Sociocultural and functional aspects • Technology • Processes • Site
Requirements	<p>Prerequisites depending on the levels of certification and credits with associated points</p> <p>This number of points is then weighted by item¹⁸ and gives a BREEAM level of certification, which is based on the overall score obtained (expressed as a percentage). Majority of BREEAM issues are flexible, meaning that the client can choose which to comply with to build their BREEAM performance score.</p> <p>BREEAM has two stages/ audit reports: a 'BREEAM Design Stage' and a 'Post Construction Stage', with different assessment criteria.</p>	<p>Prerequisites independent of level of certification, and credits with associated points.</p> <p>These points are then added together to obtain the LEED level of certification</p> <p>There are several different rating systems within LEED. Each rating system is designed to apply to a specific sector (e.g. New Construction, Major Renovation, Core and Shell Development, Schools-/Retail-/Healthcare New Construction and Major Renovations, Existing Buildings: Operation and Maintenance).</p>	<p>Percentage-based performance index</p> <p>The total performance index (expressed as a percentage) is calculated by adding the six key areas of assessment. The environmental, economic, socio-cultural and functional aspects and technical quality each account for 22.5% of the total, process accounts for 10% and the site quality is given a separate grade.</p>
Performance display			

¹⁸ BREEAM weighting: Management 12%, Health and wellbeing 15%, Energy 19%, Transport 8%, Water 6%, Materials 12.5%, Waste 7.5%, Land Use and ecology 10%, Pollution 10% and Innovation 10%. One point scored in the Energy item is therefore worth twice as much in the overall score as one point scored in the Pollution item

Appendix 2: Green Bond / Green Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	Vonovia
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:	Vonovia Green Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	February 22, 2021
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:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other <i>(please specify)</i> : | |

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 categories for the use of proceeds – Green Buildings and Energy Efficiency, Renewable Energy, and Clean Transportation – are aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers that investments in the eligible categories could increase the environmental performance and energy efficiency of Vonovia's building stock and advance the UN Sustainable Development Goals, specifically SDGs 7, 9, and 11.

Use of proceeds categories as per GBP:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Renewable energy | <input checked="" type="checkbox"/> Energy efficiency |
| <input type="checkbox"/> Pollution prevention and control | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input checked="" type="checkbox"/> Clean transportation |
| <input type="checkbox"/> Sustainable water and wastewater management | <input type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes | <input checked="" type="checkbox"/> Green buildings |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBP | <input type="checkbox"/> Other (<i>please specify</i>): |

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

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Vonovia's internal process in evaluating and selecting projects is managed by its Green Finance Committee ("GFC"), which is chaired by the Head of Treasury and Finance and comprises representatives from the Finance Department, Sustainability Department, and Portfolio Management. The GFC will meet semi-annually to ensure that allocation is in line with the eligibility criteria. Sustainalytics considers the project selection process to be in line with market practice.

Evaluation and selection

- | | |
|--|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (<i>please specify</i>): |

Information on Responsibilities and Accountability

- | | |
|--|--|
| <input checked="" type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (please specify): | |

3. MANAGEMENT OF PROCEEDS

Overall comment on section *(if applicable)*:

Vonovia's Finance department will be responsible for earmarking proceeds from the green bonds to the established Green Project Register and track this process in accordance with internal systems. Vonovia intends to reach full allocation within 24 months after issuance. Should any proceeds remain unallocated, they will be held in Vonovia's liquidity portfolio in cash, cash equivalents, or other similar instruments. Sustainalytics considers this as in line with market practice.

Tracking of proceeds:

- | |
|---|
| <input checked="" type="checkbox"/> Green Bond proceeds segregated or tracked by the issuer in an appropriate manner |
| <input checked="" type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other <i>(please specify)</i> : |

Additional disclosure:

- | | |
|---|---|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input checked="" type="checkbox"/> Allocation to a portfolio of disbursements |
| <input checked="" type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other <i>(please specify)</i> : |

4. REPORTING

Overall comment on section *(if applicable)*:

Vonovia intends to report on the allocation of proceeds on its website on an annual basis until full allocation. The allocation reporting will include details such as amount of outstanding green funding, total allocation to the Eligible Green Register, the proportion of financing vs refinancing, geographical distribution, project examples, and balance of unallocated amounts. In addition, Vonovia is committed to reporting on relevant impact metrics. Sustainalytics views Vonovia's allocation and impact reporting as aligned with market practice.

Use of proceeds reporting:

- | | |
|---|---|
| <input type="checkbox"/> Project-by-project | <input type="checkbox"/> On a project portfolio basis |
| <input checked="" type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (<i>please specify</i>): |

Information reported:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Allocated amounts | <input checked="" type="checkbox"/> Green Bond financed share of total investment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Frequency:

- | | |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): | |

Impact reporting:

- | | |
|---|---|
| <input type="checkbox"/> Project-by-project | <input type="checkbox"/> On a project portfolio basis |
| <input checked="" type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (please specify): |

Information reported (expected or ex-post):

- | | |
|---|---|
| <input checked="" type="checkbox"/> GHG Emissions / Savings | <input checked="" type="checkbox"/> Energy Savings |
| <input type="checkbox"/> Decrease in water use | <input type="checkbox"/> Other ESG indicators (please specify): |

Frequency

- | | |
|--|--------------------------------------|
| <input type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): | |

Means of Disclosure

- | | |
|---|---|
| <input type="checkbox"/> Information published in financial report | <input type="checkbox"/> Information published in sustainability report |
| <input checked="" type="checkbox"/> Information published in ad hoc documents | <input type="checkbox"/> Other (please specify): |
| <input type="checkbox"/> Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review): | |

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:

- | | |
|--|---|
| <input type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input checked="" type="checkbox"/> Certification: Climate Bonds Initiative |
| <input type="checkbox"/> Verification / Audit | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

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.

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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. The firm 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. The world's foremost issuers, from multinational corporations to financial institutions to governments, also rely on Sustainalytics for credible second-party opinions on green, social and sustainable bond frameworks. In 2020, Climate Bonds Initiative named Sustainalytics the "Largest Approved Verifier for Certified Climate Bonds" for the third consecutive year. The firm was also recognized by Environmental Finance as the "Largest External Reviewer" in 2020 for the second consecutive year. For more information, visit www.sustainalytics.com.



Named
2015: Best SRI or Green Bond Research or Rating Firm
2017, 2018, 2019: Most Impressive Second Opinion Provider

