

SECOND PARTY OPINION (SPO)

Re-verification of the Sustainability Quality of the Issuer and Green Bond Asset Pool

Zürcher Kantonalbank
02 May 2022

VERIFICATION PARAMETERS

Type(s) of instruments contemplated	<ul style="list-style-type: none">Green Bond
Relevant standards	<ul style="list-style-type: none">Green Bond Principles (June 2021) administered by the International Capital Markets Association (ICMA)
Scope of verification	<ul style="list-style-type: none">ZKB Green Bond Framework (as of 14.04.2022)ZKB Eligible Green Asset Pool (as of 17.03.2022)
Lifecycle	<ul style="list-style-type: none">Re-verification
Validity	<ul style="list-style-type: none">As long as there is no material change to the Framework and the underlying asset portfolio composition.

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SCOPE OF WORK

Zürcher Kantonalbank ('the Issuer' or 'ZKB') commissioned ISS ESG to assist with its Green Bond by assessing three core elements to determine the sustainability quality of the instrument:

1. Green Bond link to ZKB's sustainability strategy – drawing on ZKB's overall sustainability profile and issuance-specific Use of Proceeds categories.
2. ZKB's Green Bond Asset Pool (17.03.2022 version) – benchmarked against the International Capital Market Association's (ICMA) Green Bond Principles (GBP).
3. The Eligible Green Asset Pool – whether the projects contribute positively to the UN SDGs and perform against ISS ESG's issue-specific key performance indicators (KPIs) (See Annex 1).

ZKB BUSINESS OVERVIEW

Since its foundation in 1870, ZKB has established its presence in Switzerland, mainly in Zurich's Canton. With main activity in the mortgage and lending business, it also plays a role in the investment and pension sector.

ZKB acts as an independent public institution of the Canton of Zurich with a clear legal mandate to continuously supply the population and companies of the area with investment and financing services as well as contribute to the solution of economic and social tasks while dealing responsibly with the environment and society.

ISS ESG ASSESSMENT SUMMARY

SPO SECTION	SUMMARY	EVALUATION ¹
<p>Part 1:</p> <p>Green Bond link to Issuer’s sustainability strategy</p>	<p>According to the ISS ESG Corporate Rating published on 12.02.2022, the Issuer shows a high sustainability performance against the industry peer group on key ESG issues faced by the Public & Regional Banks industry. The Issuer ranks 9th out of 269 companies within its sector.</p> <p>The Use of Proceeds raised through this Green Bond are consistent with the Issuer’s sustainability strategy and material ESG topics for the Issuer’s industry. The rationale for issuing a Green Bond is clearly described by the Issuer.</p>	<p>Consistent with Issuer’s sustainability strategy</p>
<p>Part 2:</p> <p>Alignment with GBP</p>	<p>The Issuer has defined a formal concept for its Green Bond regarding Use of Proceeds, processes for project evaluation and selection, management of proceeds, and reporting. This concept is in line with the ICMA’s Green Bond Principles.</p>	<p>Aligned</p>
<p>Part 3:</p> <p>Sustainability quality of the Eligible Green Asset Pool</p>	<p>The overall sustainability quality of the Eligible Green Asset Pool in terms of sustainability benefits, risk avoidance and minimization is good based on the ISS ESG assessment. The Green Bond will (re-)finance existing and future ZKB’s Green mortgages of eligible asset categories including green buildings.</p> <p>Those Use of Proceeds categories have a positive contribution to SDGs 11 ‘Sustainable Cities and Communities’, 7 ‘Affordable and clean energy’ and 13 ‘Climate action’. The environmental and social risks associated with those Use of Proceeds categories have been well managed.</p>	<p>Positive</p>

¹ ISS ESG’s evaluation is based on the ZKB’s Green Bond Framework (14.04.2022 version), on the analysed Asset Pool as received on the 17.03.2022, and on the ISS ESG Corporate Rating updated on the 12.02.2022 and applicable at the SPO delivery date.

ISS ESG SPO ASSESSMENT

PART I: GREEN BOND LINK TO ZKB'S SUSTAINABILITY STRATEGY

A. ASSESSMENT OF ZKB'S ESG PERFORMANCE

The ISS ESG Corporate Rating provides material and forward-looking environmental, social and governance (ESG) data and performance assessments.

COMPANY	INDUSTRY	DECILE RANK	TRANSPARENCY LEVEL
ZKB	Public & Regional Banks	1	VERY HIGH

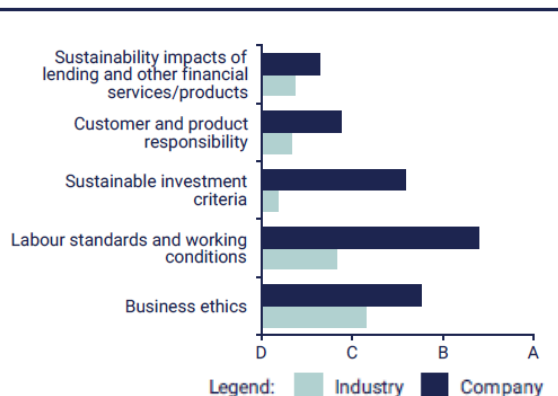
This means that the company currently shows a high sustainability performance against peers on key ESG issues faced by the Public & Regional Banks industry as it obtains a Decile Rank relative to its industry group of 1, given that a decile rank of 1 indicates highest relative ESG performance out of 10.

ESG performance

As of 05.04.2022, this rating places ZKB 9th out of 268 companies rated by ISS ESG in the Public & Regional Banks industry.

Key challenges faced by companies in this industry in terms of sustainability management are displayed in the chart on the right, as well as the Issuer's performance against those key challenges in comparison to the average industry peers' performance.

Key Issue Performance



Sustainability Opportunities

Zürcher Kantonalbank's core activities include payment transactions and card business, financing businesses, asset and wealth management, trading, capital market transactions and deposits. Furthermore, the company is active in the investment and asset management business and in trading. The company offers some measures regarding equal access to financial services such as e.g., barrier-free branches and ATMs for the disabled, and by providing banking activities in remote regions. Moreover, Zürcher Kantonalbank provides various social financial services, including microfinance and social loan programs. In addition, the company's asset management subsidiary Swisscanto offers a wide range of SRI products that cover important sustainability issues. According to the company, in 2021, assets under sustainable management amounted to 30% of total assets under management. Furthermore, the company offers green loan programs for corporate and retail customers offering preferential conditions for energy efficiency renovation and construction projects, and Zürcher Kantonalbank offers leasing services for eco-efficient vehicles.

Sustainability Risks

Financial companies face environmental and social risks in their lending and asset management as well as regarding their client and employee relations. Zürcher Kantonalbank conducts environmental risk assessments and has implemented a loan policy for corporate lending excluding among others the financing of commodities such as crude and heavy oil, diamonds, and precious woods. Therefore, risks related to the company's lending business are addressed to some extent. Regarding the integration of ESG issues into its asset management, the company shows an above-average performance and has defined a detailed integration approach taking into account relevant ESG aspects and excluding investments in companies that produce weapons prohibited under international treaties and/or which violate Swiss sanction provisions among others. Moreover, extensive application procedures for environmental and social standards in asset management are available including e.g., clear responsibilities, and use of extensive external and/or internal research. Furthermore, Zürcher Kantonalbank addresses several marketing risks, and offers internal debt counselling, thereby considering some important issues associated with its client relations. Employee-related aspects are managed through e.g., a group-wide health and safety management system addressing among others mental health problems, and the offering of comprehensive work-life balance options related to workplace flexibility or support for dependent care. Zürcher Kantonalbank has implemented a group-wide code of conduct covering several relevant compliance topics (e.g., corruption and insider dealings) in varying degrees of detail. Furthermore, comprehensive measures to ensure compliance such as compliance training and risk assessments are in place.



Governance opinion

Zürcher Kantonalbank's chair of the board as well as all members of the board are considered independent. In addition, the company has set up fully independent committees in charge of audit, nomination, and remuneration (as at April 4, 2022), thus ensuring effective management supervision. The company discloses its remuneration schemes for members of the executive management team as a whole and for the CEO individually, which includes long-term incentive components.

With regard to its governance of sustainability, there are no indications of an independent board committee in charge of sustainability matters, nor of integration of ESG factors into variable remuneration of the executives. Zürcher Kantonalbank has implemented a group-wide code of conduct covering several relevant compliance topics (e.g., corruption and insider dealings) in varying degree of detail. Furthermore, comprehensive measures to ensure compliance such as compliance training and risk assessments are in place.

Sustainability impact of products and services portfolio

Using a proprietary methodology, ISS ESG assessed the contribution of ZKB's current products and services portfolio to the Sustainable Development Goals defined by the United Nations (UN SDGs). This analysis is limited to the evaluation of final product characteristics and does not include practices along ZKB's production process.

PRODUCT/SERVICES PORTFOLIO	ASSOCIATED PERCENTAGE OF REVENUE	DIRECTION OF IMPACT	UN SDGS
Energy efficiency loans	1%	CONTRIBUTION	 

Breaches of international norms and ESG controversies

As of 24.03.2022, the company is not facing any severe controversy.

B. CONSISTENCY OF GREEN BOND WITH ZKB’S SUSTAINABILITY STRATEGY

Key sustainability objectives and priorities defined by the Issuer

In 1995, ZKB signed the United Nations Declaration on the Environment and Sustainable Development (UNEP Finance Initiative), the aim of which is to integrate sustainability aspects at all corporate levels. ZKB has also been a long-term member of "Öbu", the Association for Sustainable Business. The aim of the association of around 320 Swiss companies is to further develop the Swiss economy according to the principles of sustainability.

ZKB’s first public environmental report was published in 1998. Since then, the understanding of sustainability has expanded continuously. The initial focus on ecological aspects expanded over time to other facets of sustainability. Sustainability as part of the public service mandate is a strategic goal of ZKB, according to the bank. The public service mandate targets are measured annually and revised every three years with the board of directors.

ZKB also takes ESG criteria (environment, society and good corporate governance) into account in its sustainability policy by anchoring minimum standards in investment policy and transparency. Measures to increase transparency in turn offer incentives to improve sustainability, enable discussion about it and serve as a decision-making aid.

Rationale for issuance

ZKB has been issuing several Green Bonds in the past years. On one hand, they help to meet the growing demand for sustainable investments. On the other hand, it helps make more transparent in which areas and to what extent ZKB is developing its sustainability commitments. At the same time, the expansion of the investor base contributes to the diversification of the funding sources of ZKB. Green Bonds are mainly issued to refinance ZKB environmental loans and to finance projects with energy-related objectives for the office buildings used by ZKB itself.

Contribution of Use of Proceeds categories to sustainability objectives and priorities

ISS ESG mapped the Use of Proceeds categories financed under this Green Bond with the sustainability objectives defined by the Issuer, and with the key ESG industry challenges as defined in the ISS ESG Corporate Rating methodology for the Public & Regional Banks industry. Key ESG industry challenges are key issues that are highly relevant for a respective industry to tackle when it comes to

sustainability, e.g. climate change and energy efficiency in the buildings sector. From this mapping, ISS ESG derived a level of contribution to the strategy of each Use of Proceed category.

USE OF PROCEEDS CATEGORY	SUSTAINABILITY OBJECTIVES FOR THE ISSUER	KEY ESG INDUSTRY CHALLENGES	CONTRIBUTION
Green Buildings ²	✓	✓	Contribution to a material objective

Opinion: ISS ESG finds that the Use of Proceeds financed through this Bond are consistent with the Issuer’s sustainability strategy and material ESG topics for the Issuer’s industry. The rationale for issuing Green Bonds is clearly described by the Issuer.

² ZKB Use of Proceeds consists of financing environmental loans or renovations for buildings owned by the company targeting energy efficiency and CO₂ reduction, with all being covered by Green Buildings criteria.

PART II: ALIGNMENT WITH ICMA'S GREEN BOND PRINCIPLES

1. Use of Proceeds³

FROM ISSUER'S FRAMEWORK

Under the GBP, qualifying uses of funds include financing projects in the area of building energy efficiency. At Zürcher Kantonalbank, ZKB environmental loans and energy-related investments in the bank's own office buildings are suitable in this context.

a) ZKB environmental loans

Since the launch of the ZKB environmental loan in 1992, the number of subsidised loans to promote energy-efficient buildings has risen sharply. An important contribution towards this was the inclusion of the Minergie® certificate as a criterion for awarding a ZKB environmental loan in 1997. Zürcher Kantonalbank takes a leading role in financing newly certified Minergie® buildings in the canton of Zurich. Together with Minergie®, Zürcher Kantonalbank therefore makes a substantial contribution towards promoting energy-efficient living. In 1992, for example, consumption of heating oil in new buildings was around 12 litres per square metre per year. Today, the value is 4.8 litres, in Minergie®-certified buildings 3.5 litres, and the trend is downwards.

As at the end of December 2021, the volume of ZKB environmental loans amounted to CHF 1.218 billion, which corresponds to a portfolio of around 2,900 ZKB environmental loans. The portfolio of ZKB environmental loans is constantly being renewed as new loans are concluded and existing loans expire.

b) Internal projects

In recent years, Zürcher Kantonalbank has been able to significantly reduce energy consumption in the office buildings used by the bank through renovations and individual energy measures. The largest project was the conversion of the bank's head office, during which the building was connected to a lakewater heat pump. It was also possible to significantly reduce the demand for building and heating energy as well as associated CO₂ emissions at various branches in the canton through renovations or specific energy-saving measures.

The total amount invested in selected internal projects as at the end of December 2021 was approximately CHF 308 million. The project portfolio will be renewed over time with ongoing investments in renewable energy sources and the use of efficiency potential in new buildings and renovations.

Opinion: ISS ESG considers the Use of Proceeds description provided by ZKB's Green Bond Asset Pool as aligned with the ICMA's Green Bond Principles.

³ More details on the criteria will be available in the section "2. Process for Project Evaluation and Selection"

2. Process for Project Evaluation and Selection

FROM ISSUER'S FRAMEWORK

a) ZKB environmental loans

Embedding of the ZKB environmental loan in the sustainability policy of Zürcher Kantonalbank

The ZKB environmental loan is part of Zürcher Kantonalbank's public service mandate. Given the nature of the environmental loan the focus with respect to ESG criteria is on the achievement of environmental benefits. Planning, implementation, monitoring and reporting of the public service mandate and the topics related to sustainability (including the ZKB environmental loan as part of the sustainable products and services) are carried out by the public service mandate unit. As the highest decision-making body, the Public Service Mandate Steering Committee meets at regular intervals to advise and support the Board of Directors and the Committee of the Board of Zürcher Kantonalbank in all matters relating to the public service mandate. The Public Service Mandate Steering Committee is composed of representatives from all business units and is chaired by the public service mandate officer.

Project selection criteria

The lending criteria for the ZKB environmental loan are defined by Product Management Financing. From a financial point of view, the lending process does not differ from the regular lending process. In addition to the financial criteria, however, the borrower must demonstrate that the building project will achieve a high energy standard.

Specifically, granting of ZKB environmental loans is subject to the following additional criteria:

- New buildings: Minergie® or 2000-Watt-Areal® certificate or GEAK® certificate class A (total energy efficiency).
- Energy renovations: Minergie® certificate after renovation or GEAK® Plus certificate after renovation of at least class C (total energy efficiency) and improvement by at least one efficiency class or individual energy measures (such as thermal insulation, heat recovery, climate-friendly heating systems, solar power, photovoltaic systems, etc.).
- The certificate or label may be no more than five years old.
- Pioneering projects: Innovative and climate friendly building projects that approach sustainability in a comprehensive way (e.g. in line with SIA 2040, 2Sol).
- For owner-occupied residential property, the permissible location of the property covers the whole of Switzerland; for all other properties it is restricted to the Greater Zurich Area.
- The Minergie® or 2000-Watt-Areal® certificate and the GEAK® certificate must be issued for the entire property. Minergie® certificates for building components/modules do not entitle the holder to a ZKB environmental loan.
- The entirety of the funding must come from Zürcher Kantonalbank.
- The ZKB environmental loan cannot be integrated into an existing fixed-rate commitment.
- The term of the ZKB environmental loan can be between 2 and 15 years. However, the interest rate reduction applies for a maximum of the first five years of the term.

Existing and future ZKB environmental loans that meet these lending criteria at the time the financing is concluded qualify as eligible assets. Expired ZKB environmental loans are no longer taken into account when selecting the project. The portfolio financed in this way by green bonds is renewed on average every five years. If the certification criteria of the recognised standards are changed, Zürcher Kantonalbank reserves the right to adjust the requirements for granting of ZKB

environmental loans as well. However, existing ZKB environmental loans that have been designated as eligible assets will not lose their status if they do not meet the new eligibility criteria.

b) Internal projects

Since 2012, the bank has examined all projects in the internal building sector individually with regard to their energy impact based on effective consumption measurements. As at the evaluation date at the end of 2021, a total of eleven projects implemented between 2015 and 2021 have been selected for refinancing through green bonds. Included are projects in which a significant reduction in energy consumption and/or CO₂ emissions can be demonstrated. These projects include about 60% of the office space used by Zürcher Kantonalbank.

- The selected projects include three complete renovations and one new replacement building implemented in the period under review.
- In addition, the selection includes seven smaller projects focused on optimising energy consumption.

The selected internal projects qualify for green bond financing for 15 years from the year of implementation. For example, a project that was implemented in 2015 will remain in the portfolio of projects until 2030. Investments and projects completed before 2012 are not taken into account for the green bond programme, although a further part of the office space was built according to energy-efficient criteria earlier as part of the bank’s overall building strategy.

Opinion: ISS ESG considers the Process for Project Evaluation and Selection description provided by ZKB’s Green Bond Asset Pool as aligned with the ICMA’s Green Bond Principles. The Issuer involves various stakeholders in this process, in line with best market practice.

3. Management of Proceeds

FROM ISSUER’S FRAMEWORK

Zürcher Kantonalbank undertakes to use all the proceeds of the green bonds to fund existing and future ZKB environmental loans or selected internal projects. To ensure that the funds raised are used for the intended purpose, new green bonds will only be issued if – following the planned new issue – the total outstanding volume of ZKB environmental loans and the bank’s internal projects exceeds the volume of green bonds in issue by at least 10%. Compliance with this condition is reviewed on a quarterly basis using an internal control system. In addition, Zürcher Kantonalbank excludes existing and future ZKB environmental loans from the collateral pool of covered bond loans ("Pfandbriefdarlehen").

As at the end of 2021, the proceeds from the issuance of green bonds of CHF 825 million compared with an asset pool size of CHF 1'525 million.

As at 31.12.2021	Green Asset Category of selected projects	Share of asset pool in CHF m	Percentage share
	Green Buildings: Private Mortgage Loans	590	39%
	Green Buildings: Commercial Real Estate ▪ of which bank's own office buildings	689 308	45% 21%

SECOND PARTY OPINION

Re-verification of the Sustainability Quality of the Issuer and Green Bond Asset Pool



	Green Buildings: Housing Cooperatives	247	16%
Total	Selected projects	1'525	100%
Total	Outstanding green bonds	825	

Should the volume of outstanding green bonds at any point exceed the total outstanding volume of ZKB environmental loans and internal projects, the surplus funds from the green bond issues will be used as follows:

- Held in reserve as cash
- Invested in green bonds of other Issuers.

The following criteria are applied when investing in green bonds of other Issuers:

- Currency / rank: CHF, EUR or USD / senior unsecured
- Issuer rating: investment grade
- At least one independent audit in the form of a second party opinion or green bond rating. Accepted auditors are:
 - Second Party Opinion: CICERO Shades of Green, ISS-ESG, Sustainalytics, V.E or DNV
 - Green bond rating: S&P.

Opinion: ISS ESG finds that the Management of Proceeds proposed by ZKB's Green Bond Asset Pool is well aligned with the ICMA's Green Bond Principles. The Issuer specifies the types of temporary placements for unallocated proceeds, which include the investment in green bonds of other Issuers.

4. Reporting

FROM ISSUER'S FRAMEWORK

Zürcher Kantonalbank provides information updated on an annual basis on the Use of Proceeds and the environmental impact of green bonds. The reporting consists of the following parts:

- The Green Bond Framework sets out the guidelines and procedures according to which the proceeds of the green bonds issued by Zürcher Kantonalbank are used. The Green Bond Framework is in line with ICMA's Green Bond Principles (GBP).
- The Annual and Environmental Reporting on green bonds highlights the energetic impact associated with the projects financed by ZKB environmental loans and the bank's internal projects. The scope of the impact analysis for ZKB environmental loans is limited to building projects that are based on the Minergie Standard. The impact analysis for the bank's internal projects covers all selected projects and is based on actual consumption values. These analyses provide estimates for the reduction in energy consumption and/or in CO₂ emissions achieved through the projects.
- The Second-party opinion from ISS ESG re-verifies the sustainability quality of the Issuer and the green bond asset pool.

The ongoing reporting can be found at <https://www.zkb.ch/de/uu/nb/investor-relations/obligationenanleihen.html>

Opinion: ISS ESG finds that the reporting proposed by ZKB's Green Bond Asset Pool is aligned with the ICMA's Green Bond Principles. The Issuer is transparent on the information reported, frequency, scope, duration and level of impact reporting, in line with best market practice. The Issuer also discloses the location and link of the report(s), in line with best market practice.

External review

FROM ISSUER'S FRAMEWORK

Zürcher Kantonalbank obtains a new second-party opinion from ISS-ESG every year to confirm the transparency and reliability of the green bond framework and issuance process. The second-party opinion is published on the Zürcher Kantonalbank homepage as mentioned above.

PART III: SUSTAINABILITY QUALITY OF THE ISSUANCE

A. CONTRIBUTION OF THE GREEN BOND TO THE UN SDGs

Based on the assessment of the sustainability quality of the Green Bond Eligible Green Asset Pool and using a proprietary methodology, ISS ESG assessed the contribution of the ZKB’s Green Bond to the Sustainable Development Goals defined by the United Nations (UN SDGs).

This assessment is displayed on 5-point scale (see Annex 1 for methodology):



Each of the Green Bond’s Use of Proceeds categories has been assessed for its contribution to, or obstruction of, the SDGs:

USE OF PROCEEDS	CONTRIBUTION OR OBSTRUCTION	SUSTAINABLE DEVELOPMENT GOALS
Green Buildings <i>Buildings certified with Minergie</i>	Limited contribution	
Green Buildings <i>Buildings certified GEAK and 2000-WattArea</i>	Limited contribution ⁴	
Green Buildings <i>Renovations (for environmental loans and internal projects⁵)</i>	Limited contribution	

⁴ This assessment differs from the ISS ESG SDG Solutions Assessment (SDGA) proprietary methodology designed to assess the impact of an Issuer’s product and service portfolio on the SDGs. The insight on the project level in the scope of the current SPO allows to take into account more granular information on the project level.

⁵ Including replacement of heating systems from oil to biogas among other improvements to sustainable infrastructures

B. MANAGEMENT OF ENVIRONMENTAL AND SOCIAL RISKS ASSOCIATED WITH THE ELIGIBLE GREEN ASSET POOL

Green buildings and renovations

The table below presents the findings of an ISS ESG assessment of the Eligible Green Asset Pool against ISS ESG KPIs.

ASSESSMENT AGAINST ISS ESG KPI

Site selection

- ✓ 100% of assets have a in policy responsible site selection in place (e.g. brownfield development, exclusion of protected areas and sites of high environmental value). This is ensured by Swiss national legislation, in line with requirements for environmental impact assessments as mandated under Directive 2011/92/EU
- ✓ 100% of the assets are located within a maximum of 1 km from one or more modalities of public transport.

Construction standards

- ✓ 100% of the assets are located in Switzerland, where high labour and health and safety standards are in place for construction and maintenance work (e.g. ILO core conventions).
- No information is available on the sustainable procurement of building materials.

Water use minimization in buildings

- No information is available on measures to reduce water consumption in buildings.

Safety of building users

- ✓ 100% of the assets provide for measures to ensure operational safety (e.g. requirements for fire protection, in line with national legislation).

DISCLAIMER

1. Validity of the SPO: As long as there is no material change to the Framework and the underlying asset portfolio composition.
2. ISS ESG uses a scientifically based rating concept to analyse and evaluate the environmental and social performance of companies and countries. In doing so, we adhere to standardized procedures to ensure consistent quality of responsibility research worldwide. In addition, we provide Second Party Opinion (SPO) on bonds based on data provided by the Issuer.
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ANNEX 1: Methodology

ISS ESG Green/Social KPIs

The ISS ESG Green/Social Bond KPIs serve as a structure for evaluating the sustainability quality – i.e. the social and environmental added value – of the Use of Proceeds of ZKB's Green Bond.

It comprises firstly the definition of the Use of Proceeds category offering added social and/or environmental value, and secondly the specific sustainability criteria by means of which this added value and therefore the sustainability performance of the assets can be clearly identified and described.

The sustainability criteria are complemented by specific indicators, which enable quantitative measurement of the sustainability performance of the assets and which can also be used for reporting. If a majority of assets fulfill the requirement of an indicator, this indicator is then assessed positively. Those indicators may be tailor-made to capture the context-specific environmental and social risks.

Environmental and social risks assessment methodology

ISS ESG evaluates whether the assets included in the asset pool match the eligible project category and criteria listed in the Green/Social Bond KPIs.

All percentages refer to the amount of assets within one category (e.g. wind power). Additionally, the assessment “no or limited information is available” either indicates that no information was made available to ISS ESG or that the information provided did not fulfil the requirements of the ISS ESG Green/Social Bond KPIs.

The evaluation was carried out using information and documents provided to ISS ESG on a confidential basis by ZKB (e.g. Due Diligence Reports). Further, national legislation and standards, depending on the asset location, were drawn on to complement the information provided by the Issuer.

Assessment of the contribution and association to the SDG

The 17 Sustainable Development Goals (SDGs) were endorsed in September 2015 by the United Nations and provide a benchmark for key opportunities and challenges toward a more sustainable future. Using a proprietary method, ISS ESG identifies the extent to which ZKB's Green Bond contributes to related SDGs.

ANNEX 2: ISS ESG Corporate Rating Methodology

Methodology - Overview

The ESG Corporate Rating methodology was originally developed by Institutional Shareholder Services Germany (formerly oekom research) and has been consistently updated for more than 25 years.

ESG Corporate Rating - The ESG Corporate Rating universe, which is currently expanding from more than 8,000 corporate Issuers to a targeted 10,000 Issuers in 2020, covers important national and international indices as well as additional companies from sectors with direct links to sustainability and the most important bond Issuers that are not publicly listed companies.

The assessment of a company's social & governance and environmental performance is based on approximately 100 environmental, social and governance indicators per sector, selected from a pool of 800+ proprietary indicators. All indicators are evaluated independently based on clearly defined performance expectations and the results are aggregated, taking into account each indicator's and each topic's materiality-oriented weight, to yield an overall score (rating). If no relevant or up-to-date company information with regard to a certain indicator is available, and no assumptions can be made based on predefined standards and expertise, e.g. known and already classified country standards, the indicator is assessed with a D-.

In order to obtain a comprehensive and balanced picture of each company, our analysts assess relevant information reported or directly provided by the company as well as information from reputable independent sources. In addition, our analysts actively seek a dialogue with the assessed companies during the rating process and companies are regularly given the opportunity to comment on the results and provide additional information.

Analyst Opinion - Qualitative summary and explanation of the central rating results in three dimensions:

- (1) Opportunities - assessment of the quality and the current and future share of sales of a company's products and services, which positively or negatively contribute to the management of principal sustainability challenges.
- (2) Risks - summary assessment of how proactively and successfully the company addresses specific sustainability challenges found in its business activity and value chain, thus reducing its individual risks, in particular regarding its sector's key issues.
- (3) Governance - overview of the company's governance structures and measures as well as of the quality and efficacy of policies regarding its ethical business conduct.

Norm-Based Research - Severity Indicator - The assessment of companies' sustainability performance in the ESG Corporate Rating is informed by a systematic and comprehensive evaluation of companies' ability to prevent and mitigate ESG controversies. ISS ESG conducts research and analysis on corporate involvement in verified or alleged failures to respect recognized standards for responsible business conduct through Norm-Based Research.

Norm-Based Research is based on authoritative standards for responsible business conduct such as the UN Global Compact, the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles for Business and Human Rights and the Sustainable Development Goals.

As a stress-test of corporate disclosure, Norm-Based Research assesses the following:

- Companies' ability to address grievances and remediate negative impacts
- Degree of verification of allegations and claims
- Severity of impact on people and the environment, and systematic or systemic nature of malpractices

Severity of impact is categorized as Potential, Moderate, Severe, Very severe. This informs the ESG Corporate Rating.

Decile Rank - The Decile Rank indicates in which decile (tenth part of total) the individual Corporate Rating ranks within its industry from 1 (best – company's rating is in the first decile within its industry) to 10 (lowest – company's rating is in the tenth decile within its industry). The Decile Rank is determined based on the underlying numerical score of the rating. If the total number of companies within an industry cannot be evenly divided by ten, the surplus company ratings are distributed from the top (1 decile) to the bottom. If there are Corporate Ratings with identical absolute scores that span a division in decile ranks, all ratings with an equal decile score are classified in the higher decile, resulting in a smaller number of Corporate Ratings in the decile below.

Distribution of Ratings - Overview of the distribution of the ratings of all companies from the respective industry that are included in the ESG Corporate Rating universe (company portrayed in this report: dark blue).

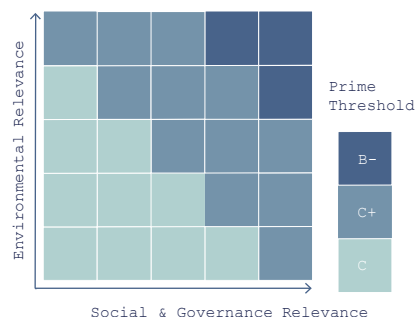
SECOND PARTY OPINION

Re-verification of the Sustainability Quality of the Issuer and Green Bond Asset Pool



Industry Classification - The social and environmental impacts of industries differ. Therefore, based on its relevance, each industry analyzed is classified in a Sustainability Matrix.

Depending on this classification, the two dimensions of the ESG Corporate Rating, the Social Rating and the Environmental Rating, are weighted and the sector-specific minimum requirements for the ISS ESG Prime Status (Prime threshold) are defined (absolute best-in-class approach).



Industry Leaders - List (in alphabetical order) of the top three companies in an industry from the ESG Corporate Rating universe at the time of generation of this report.

Key Issue Performance - Overview of the company's performance with regard to the key social and environmental issues in the industry, compared to the industry average.

Performance Score - The ESG Performance Score allows for cross-industry comparisons using a standardized best-in-class threshold that is valid across all industries. It is the numerical representation of the alphabetic ratings (D- to A+) on a scale of 0 to 100 with 50 representing the prime threshold. All companies with values greater than 50 are Prime, while companies with values less than 50 are Not Prime. As a result, intervals are of varying size depending on the original industry-specific prime thresholds.

Rating History - Development of the company's rating over time and comparison to the average rating in the industry.

Rating Scale - Companies are rated on a twelve-point scale from A+ to D-:

A+: the company shows excellent performance.

D-: the company shows poor performance (or fails to demonstrate any commitment to appropriately address the topic).

Overview of the range of scores achieved in the industry (light blue) and indication of the grade of the company evaluated in this report (dark blue).

Sources of Information - A selection of sources used for this report is illustrated in the annex.

Status & Prime Threshold - Companies are categorized as Prime if they achieve/exceed the sustainability performance requirements (Prime threshold) defined by ISS ESG for a specific industry (absolute best-in-class approach) in the ESG Corporate Rating. Prime companies are sustainability leaders in their industry and are better positioned to cope with material ESG challenges and risks, as well as to seize opportunities, than their Not Prime peers. The financial materiality of the Prime Status has been confirmed by performance studies, showing a continuous outperformance of the Prime portfolio when compared to conventional indices over more than 14 years.

Transparency Level - The Transparency Level indicates the company's materiality-adjusted disclosure level regarding the environmental and social performance indicators defined in the ESG Corporate Rating. It takes into consideration whether the company has disclosed relevant information regarding a specific indicator, either in its public ESG disclosures or as part of the rating feedback process, as well as the indicator's materiality reflected in its absolute weight in the rating. The calculated percentage is classified in five transparency levels following the scale below.

0% - < 20%: very low

20% - < 40%: low

40% - < 60%: medium

60% - < 80%: high

80% - 100%: very high

For example, if a company discloses information for indicators with a cumulated absolute weight in the rating of 23 percent, then its Transparency Level is "low". A company's failure to disclose, or lack of transparency, will impact a company's ESG performance rating negatively.

ANNEX 3: Quality management processes

SCOPE

ZKB commissioned ISS ESG to compile a Green Bond SPO. The Second Party Opinion process includes verifying whether the Green Bond Asset Pool aligns with the ICMA's Green Bond Principles and to assess the sustainability credentials of its Green Bond, as well as the Issuer's sustainability strategy.

CRITERIA

Relevant Standards for this Second Party Opinion

- ICMA's Green Bond Principles
- ISS ESG Key Performance Indicators relevant for Use of Proceeds categories selected by the Issuer

ISSUER'S RESPONSIBILITY

ZKB's responsibility was to provide information and documentation on:

- Framework
- Asset pool
- Documentation of ESG risks management at the asset level

ISS ESG'S VERIFICATION PROCESS

ISS ESG is one of the world's leading independent environmental, social and governance (ESG) research, analysis and rating houses. The company has been actively involved in the sustainable capital markets for over 25 years. Since 2014, ISS ESG has built up a reputation as a highly-reputed thought leader in the green and social bond market and has become one of the first CBI-approved verifiers.

ISS ESG has conducted this independent Second Party Opinion of the Green Bond to be issued by ZKB based on ISS ESG methodology and in line with the ICMA ICMA's Green Bond Principles.

The engagement with ZKB took place from February to April 2022.

ISS ESG'S BUSINESS PRACTICES

ISS has conducted this verification in strict compliance with the ISS Code of Ethics, which lays out detailed requirements in integrity, transparency, professional competence and due care, professional behaviour and objectivity for the ISS business and team members. It is designed to ensure that the verification is conducted independently and without any conflicts of interest with other parts of the ISS Group.

About ISS ESG SPO

ISS ESG is one of the world’s leading rating agencies in the field of sustainable investment. The agency analyses companies and countries regarding their environmental and social performance.

As part of our Sustainable (Green & Social) Bond Services, we provide support for companies and institutions issuing sustainable bonds, advise them on the selection of categories of projects to be financed and help them to define ambitious criteria.

We assess alignment with external principles (e.g. the ICMA Green / Social Bond Principles), analyse the sustainability quality of the assets and review the sustainability performance of the Issuer themselves. Following these three steps, we draw up an independent SPO so that investors are as well informed as possible about the quality of the bond/loan from a sustainability perspective.

Learn more: <https://www.isscorporatesolutions.com/solutions/esg-solutions/green-bond-services/>

For more information on SPO services, please contact: SPOsales@isscorporatesolutions.com

For more information on this specific Green Bond SPO, please contact: SPOoperations@iss-esg.com

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