

A close-up photograph of two butterflies on a green leaf. One butterfly is in the foreground, showing its white wings with black veins and spots. Another butterfly is partially visible behind it. The background is blurred green foliage.

Invest in the future.
Transform it now.

“Green Bonds – Made by KfW”

Allocation Report: Use of proceeds of 2022 Green Bond issuances

March 2023

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“Green Bonds – Made by KfW”

As one of the world's largest financiers of climate action and environmental protection, KfW endeavours to make an active contribution to climate protection also through its capital market activities.

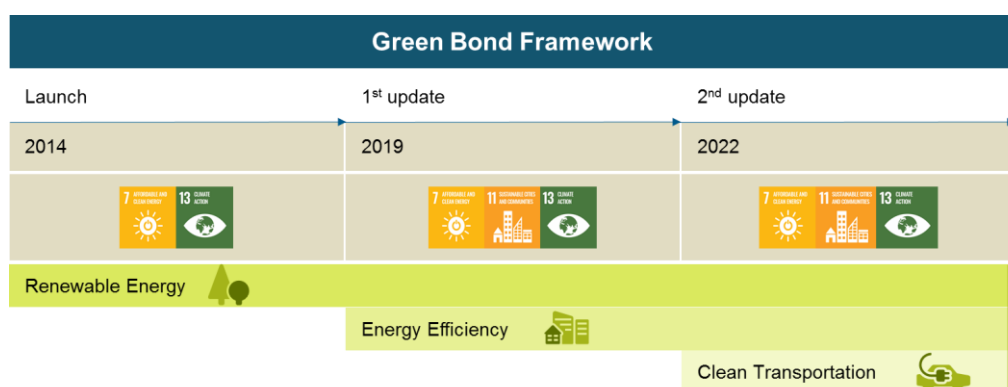
Since 2014, KfW has been actively supporting the green bond market as an issuer of "Green Bonds – Made by KfW" and continuously expanding its Green Bond Framework.

KfW's current Green Bond Framework has been in effect since 1 January 2022 and includes three project categories. The first category "**Renewable Energies**" offers financing for the construction, expansion and acquisition of plants generating power or heat from renewable energy sources. The second category "**Energy Efficiency**" finances the construction of new energy-efficient buildings, as well as the renovation of and individual measures for existing residential, commercial and municipal buildings, which improve energy efficiency. The third category "**Clean Transportation**" offers financing for local public transport and infrastructure in Germany that promotes sustainable mobility.

The updated Green Bond Framework is aligned the ICMA Green Bond Principles published in June 2021 and features an updated Second Party Opinion by Cicero Shades of Green, Oslo.

Cicero Shades of Green rates KfW's Green Bond Framework 2022 '**Medium Green**' and KfW's governance structure '**Excellent**'.

KfW's Green Bond Framework Evolution



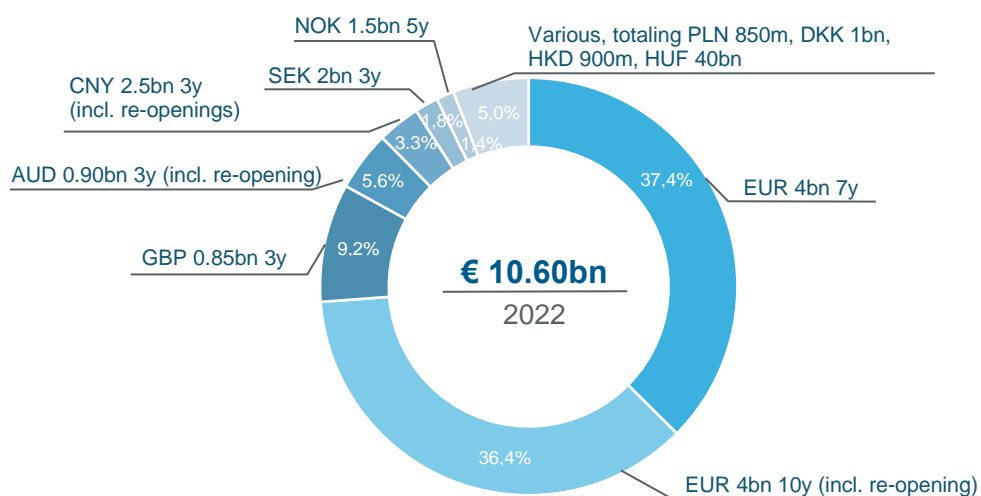
Issuances 2022

In 2022, KfW issued **20 “Green Bonds – Made by KfW” in ten currencies**. The issuances comprise thirteen new lines as well as seven re-openings of 2022 green bonds (EUR, AUD, CNY, PLN and HUF).

Net proceeds from the 2022 issuances amounted to an equivalent of EUR 10,596 million. Proceeds in foreign currencies were converted into euro at the ECB's reference exchange rate on the pricing date of the respective issuance. Volume-weighted average **years to maturity** based on net proceeds of 2022 issuances are **7.1 years** and, thus, in line with the KfW Green Bond Framework do not exceed the average duration of the cumulated loan commitments under the eligible loan programmes of the preceding year (8.5 years).

With EUR 10.6 bn, “Green Bonds – Made by KfW” contributed 11.7% of KfW's total funding programme in debt capital markets, the second largest volume so far.

Net proceeds of 2022 Green Bonds – Made by KfW



With its inaugural green bond issuance in DKK, KfW introduced its 14th green currency.

Use of Proceeds 2022

An amount equal to the total net proceeds of KfW's Green Bonds issued in 2022 were fully allocated to disbursements in **projects mitigating climate change** in the categories of **renewable energies** (KfW loan programme "Renewable Energies - Standard"), **energy efficiency** (KfW loan programme "Federal Funding for Efficient Buildings" (BEG)) and **clean transportation** (KfW loan programmes "Sustainable Mobility for Municipalities" and "Sustainable Mobility for Corporates").

Net proceeds are linked to disbursements on an aggregated data basis (no project-by-project data) for each calendar year, meaning that all disbursements requested under the eligible loan programmes between 1 January and 31 December are linked to the cumulated net proceeds of all "Green Bonds – Made by KfW" issued in the same calendar year. As a result, all KfW Green Bonds issued in one calendar year show the same allocation breakdown which remains unchanged over the bonds' lifetime.

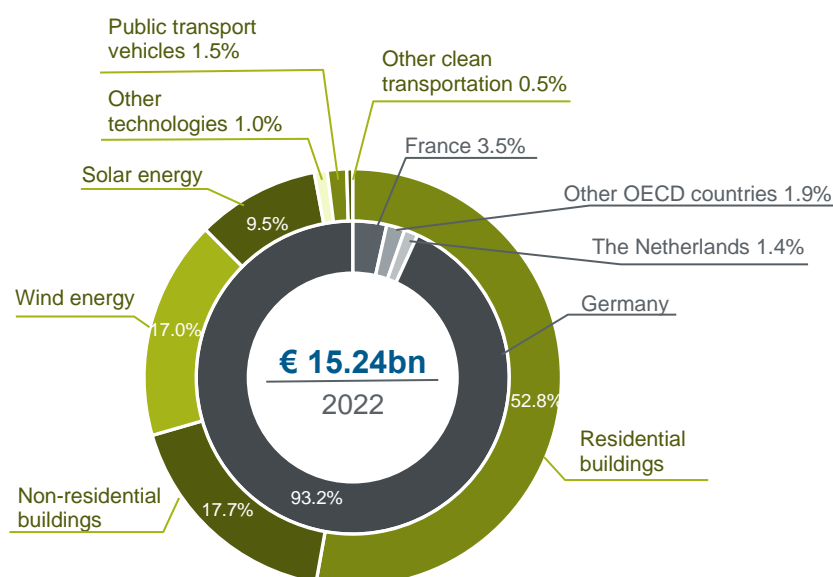
Requests for disbursements for eligible green projects between 1 January and 31 December 2022 amounted to EUR 15,237 million and thus exceeded the net proceeds of 2022's green bonds, which amounted to EUR 10,596 million, by EUR 4,641 million. At year-end 2022, the net proceeds of KfW's Green Bonds issued in 2022 were **fully allocated**.

A strong demand for KfW's loan programmes which are linked to "Green Bonds – Made by KfW", especially from retail clients for residential buildings in Germany, enabled KfW to issue a volume of EUR 10.6 billion in green bonds in 2022.

70.5% of all requests for disbursement were related to projects in the category of **energy efficiency** (52.8% residential buildings; 17.7% non-residential buildings), while **27.6%** were related to projects in the category of **renewable energies** (17.0% wind energy; 9.5% solar energy; 1.0% other technologies). A further **1.9%** came from the **clean transportation** category (1.5% public transport vehicles, 0.5% infrastructure, bicycle lanes and others).

93.2% of the requested funds were related to projects located in **Germany**. The remainder was related to projects located in **France (3.5%), the Netherlands (1.4%), Ireland (0.6%), Poland (0.4%), Finland (0.3%), Spain (0.3%), Italy (0.2%) and Austria (0.2%)**.




Requests for disbursements under the eligible loan programmes



Environmental and Social Impact

The environmental and social impact of projects linked to the 2022 „Green Bonds – Made by KfW“ will be evaluated by independent research agencies based on data delivered to KfW at the time of the respective loan application. KfW expects to provide this information in an Impact Report to be published in 2024. The report, which will also include information on the methodology and underlying assumptions, will be made available on www.kfw.de/green-bonds at that time.

Based on impact data already evaluated for the project categories **renewable energies** and **energy efficiency**, each provided by independent research agencies, for the years 2019 to 2021, KfW **estimates** the environmental and social impact of its 2022 green bonds as per the table below (based on a **pro-rata share of financing**). The below estimates are based on KfW's 2019 Green Bond Framework and do not include estimates for the category **clean transportation** (1.9% out of total) nor for the modernisation of residential and non-residential buildings as no estimated values from previous years are available. Depending on the projects still to be evaluated by an independent research institute, further indicators such as passenger-kilometres or reduction of certain air pollutants may be added for the category 'clean transportation' in the final Impact Report.

The EUR 10,596 million net proceeds of KfW's 2022 green bond issuances contribute to the prevention of approx. 2.1 million tons of GHG emissions (CO₂-equivalents) per annum . This equals a prevention of 195 tons of CO ₂ -equivalents per EUR 1 million invested in "Green Bonds – Made by KfW".	
The eligible projects generate an additional capacity of renewable energy estimated at around 2,400 MWeI (0.22 MWeI per EUR 1 million) annually, which delivers additional annual renewable energy generation of an estimated 3.97 million MWh (375 MWh per EUR 1 million).	
Additionally, the projects contribute to annual estimated energy savings of almost 120,000 MWh . Thus, an investment of EUR 1 million in "Green Bonds – Made by KfW" leads to energy savings of 11.1 MWh annually.	

Furthermore, KfW estimates that the proceeds of its 2022 green bonds create and/or secure over 130,000 jobs per annum. This equals 12 jobs (person years) per EUR 1 million invested in "Green Bonds – Made by KfW".

Details on the determination of the estimated values are available on KfW's website at www.kfw.de/green-bonds. The actual environmental and social impact to be calculated can differ from these estimates.

All projects linked to the 2022 „Green Bonds – Made by KfW“ contribute to at least one of the United Nations' Sustainable Development Goals (SDG). The three SDGs defined in KfW's Green Bond Framework are: Affordable and Clean Energy (SDG 7), Sustainable Cities and Communities (SDG 11) and Climate Action (SDG 13).



Awards

Over time, KfW has received several awards honouring its overall and green bond issuance activities, including most recently:

Best SSA Issuer Best GBP Issuer	
Green bond of the year – agency (KfW USD Green Bond due 2026)	
Most Impressive SSA MTN Issuer 2022	

Summary

Green Bonds – Made by KfW / Issuances and re-openings 2022

ISIN	Coupon p.a.	Maturity	Volume in millions	Net proceeds in millions EUR	As of 31.12.2022 allocated	Distribution by sector			Distribution by region		Estimated environmental and social impact per € 1 million ** (based on pro-rata financing of projects)				
						Renewable energy	Energy efficiency	Clean trans- portation	Germany	Other OECD	Annual GHG emissions reduced/ avoided in tons CO ₂ e	Annual final energy savings in MWh	Annual renewable electricity generation in MWh	Renewable energy capacity added in MWel	Number of jobs created and/or preserved in person years
XS2433824757	3.90%	18 Jan 2024	PLN 500	110	100%	27.6%	70.5%	1.9%	93.2%	6.8%	195	11.1	375	0.22	12
XS2438629573	0.00%	15 Nov 2024	DKK 1,000	135	100%										
XS2451378181	2.75%	03 Mar 2025	CNY 2,000	279	100%										
XS2466052979	1.50%	07 Apr 2025	SEK 2,000	193	100%										
XS2475954900	1.375%	07 Jun 2032	EUR 3,000	2,975	100%										
XS2483518705	1.90%	23 May 2023	HKD 300	37	100%										
XS2451378181	2.75%	03 Mar 2025	CNY 250	35	100%										
XS2496684601	2.73%	05 Jul 2023	HKD 300	36	100%										
XS2498154207	2.00%	15 Nov 2029	EUR 4,000	3,967	100%										
XS2498552194	9.00%	08 Jul 2024	HUF 30,000	75	100%										
XS2498552194	9.00%	08 Jul 2024	HUF 10,000	24	100%										
XS2433824757	3.90%	18 Jan 2024	PLN 200	40	100%										
XS2451378181	2.75%	03 Mar 2025	CNY 250	36	100%										
XS2433824757	3.90%	18 Jan 2024	PLN 150	29	100%										
XS2475954900	1.375%	07 Jun 2032	EUR 1,000	880	100%										
XS2555201487	3.875%	02 Sep 2025	GBP 850	972	100%										
AU3CB0294270	4.10%	20 Feb 2026	AUD 750	491	100%										
XS2563353957	3.367%	02 Dec 2027	NOK 1,500	145	100%										
XS2563983894	4.57%	12 Dec 2023	HKD 300	37	100%										
AU3CB0294270	4.10%	20 Feb 2026	AUD 150	98	100%										
				10,596	100%	27.6	70.5	1.9	93.2%	6.8%	195	11.1	375	0.22	12

For reference only: 2019-2021 issuances still outstanding at year-end 2022. Data speaks as of year-end of the respective year and has not been reviewed thereafter:

Green Bonds – Made by KfW / Issuances and re-openings 2021 (still outstanding at year-end 2022)

ISIN	Coupon p.a.	Maturity	Volume in millions	Net proceeds in millions EUR	As of 31.12.2021 allocated	Distribution by sector			Distribution by region		Estimated environmental and social impact per € 1 million ** (based on pro-rata financing of projects)				
						Renewable energy	Energy efficiency	Clean trans- portation	Germany	Other OECD	Annual GHG emissions reduced/ avoided in tons CO _{2e}	Annual final energy savings in MWh	Annual renewable electricity generation in MWh	Renewable energy capacity added in MWeI	Number of jobs created and/or preserved in person years
XS2288932853	5.80%	19 Jan 2028	ZAR 300	16	100%	15.2%	84.4%	-	94.6%	5.4%	109	9.3	206	0.12	12
XS2291329030	4.40%	25 Jul 2025	MXN 1,000	41	100%										
XS2291810419	2.14%	26 Jan 2024	CNY 150	19	100%										
XS2046690827	1.25%	28 Aug 2023	NOK 5,000	493	100%										
XS2046690827	1.25%	28 Aug 2023	NOK 2,000	197	100%										
US500769JL97*	0.75%	19 Feb 2026	CAD 1,000	647	100%										
XS2288932853	5.80%	19 Jan 2028	ZAR 200	11	100%										
XS2315837778	1.25%	08 Aug 2025	NOK 3,000	297	100%										
XS2320033835	2.52%	23 Mar 2026	CNY 380	49	100%										
XS2321476793	0.25%	09 Sep 2026	SEK 2,000	196	100%										
XS2321685526	0.625%	25 Jul 2025	PLN 500	109	100%										
AU3CB0265239	1.50%	24 Jul 2024	AUD 450	303	100%										
XS2322827382	2.70%	25 Mar 2024	CNY 1,250	161	100%										
XS2331327564	0.00%	15 Jun 2029	EUR 4,000	4,065	100%										
XS2320033835	2.52%	23 Mar 2026	CNY 170	22	100%										
AU3CB0265239	1.50%	24 Jul 2024	AUD 400	262	100%										
XS2034715305	0.875%	15 Sep 2026	GBP 500	596	100%										
XS2322827382	2.70%	25 Mar 2024	CNY 500	65	100%										
XS2046690827	1.25%	28 Aug 2023	NOK 3,000	290	100%										
AU3CB0265239	1.50%	24 Jul 2024	AUD 350	225	100%										
XS2384732090	1.625%	14 Sep 2023	HUF 5,750	16	100%										
XS2388457264	0.00%	15 Sep 2031	EUR 3,000	3,022	100%										
XS2046690827	1.25%	28 Aug 2023	NOK 2,000	199	100%										
XS2034715305	0.875%	15 Sep 2026	GBP 750	882	100%										
XS2322827382	2.70%	25 Mar 2024	CNY 500	68	100%										

US500769JQ84*	1.00%	01 Oct 2026	USD 3,000	2,577	100%										
AU3CB0265239	1.50%	24 Jul 2024	AUD 100	66	100%										
XS2403288447	2.95%	29 Oct 2023	CNY 300	40	100%										
XS2404276300	2.00%	03 Nov 2023	PLN 400	87	100%										
XS2388457264	0.00%	15 Sep 2031	EUR 1,000	1,005	100%										
Total issuances "Green Bonds – Made by KfW" 2021***				16,212	100%	15.2%	84.8%	-	94.6%	5,4%	109	9.3	206	0.12	12

Green Bonds – Made by KfW / Issuances and re-openings 2020 (still outstanding at year-end 2022)

ISIN	Coupon p.a.	Maturity	Volume in millions	Net proceeds in millions EUR	As of 31.12.2020	Distribution by sector			Distribution by region		Estimated environmental and social impact per € 1 million ** (based on pro-rata financing of projects)				
					allocated	Renewable energy	Energy efficiency	Clean transportation	Germany	Other OECD	Annual GHG emissions reduced/avoided in tons CO ₂ e	Annual final energy savings in MWh	Annual renewable electricity generation in MWh	Renewable energy capacity added in MWel	Number of jobs created and/or preserved in person years
XS2046690827	1.25%	28 Aug 2023	NOK 2,000	201	100%										
XS2209794408	0.00%	15 Sep 2028	EUR 6,000	6,202	100%	21.1%	78.9%	-	93.1%	6.9%	178	8.7	254	0.13	12
US500769JG03*	0.75%	30 Sep 2030	USD 2,000	1,668	100%										
Total issuances "Green Bonds – Made by KfW" 2020***				8,350	100%	21.1%	78.9%	-	93.1%	6.9%	178	8.7	254	0.13	12

Green Bonds – Made by KfW / Issuances including re-openings 2019 (still outstanding at year-end 2022)

ISIN	Coupon p.a.	Maturity	Volume in millions	Net proceeds in millions EUR	As of 31.12.2019	Distribution by sector			Distribution by region		Estimated environmental and social impact per € 1 million ** (based on pro-rata financing of projects)				
					allocated	Renewable energy	Energy efficiency	Clean trans- portation	Germany	Other OECD	Annual GHG emissions reduced/ avoided in tons CO ₂ e	Annual final energy savings in MWh	Annual renewable electricity generation in MWh	Renewable energy capacity added in MWel	Number of jobs created and/or preserved in person years
SSD010000904	0.59%	31 Jan 2029	EUR 2	2	100%	20.7%	79.3%	-	90.2%	9.8%	178	8.7	254	0.13	12
XS1999841445	0.01%	05 May 2027	EUR 4,000	4,006	100%										
AU3CB0265239	1.50%	24 Jul 2024	AUD 450	281	100%										
XS2034715305	0.875%	15 Sep 2026	GBP 650	722	100%										
XS2046690827	1.25%	28 Aug 2023	NOK 6,000	594	100%										
US500769JD71*	1.75%	14 Sep 2029	USD 2,000	1,807	100%										
Total issuances “Green Bonds – Made by KfW” 2019***				8,103	100%	20.7%	79.3%	-	90.2%	9.8%	178	8.7	254	0.13	12

Net proceeds in foreign currencies were converted into EUR at the ECB's exchange rate on the respective pricing date.

* SEC registered global bond.

** Impact data for the years 2019 and 2020 are evaluated by independent research agencies. Impact data for the years 2021-2022 is an estimate based on impact data from previous years where actual figures are not yet available. 2022 estimates are based on KfW's 2019 Green Bond Framework and do not include estimates for the category 'clean transportation' (1.9% out of total) or for the modernisation of residential and non-residential buildings as no estimated values from previous years are available. Depending on the projects still to be evaluated by an independent research institute, further indicators such as passenger-kilometres or reduction of certain air pollutants may be added for the category 'clean transportation' in the final Impact Report. Actual, current, and future impact might be different. Actual environmental and social impact data of projects financed in 2021 and 2022 is expected to be published once evaluated by independent research agencies, in 2024.

*** Including issuances that matured before year-end 2022



**To
KfW
Frankfurt am Main**

Independent Practitioner's Report on a Limited
Assurance Engagement regarding KfW's Green
Bond Allocation Report 2022

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**INDEPENDENT PRACTITIONER'S REPORT ON A LIMITED ASSURANCE ENGAGEMENT
REGARDING KfW'S GREEN BOND ALLOCATION REPORT 2022**

To KfW, Frankfurt am Main, Federal Republic of Germany

Engagement

We have performed a limited assurance engagement on the "Allocation Report: Use of proceeds of 2022 Green Bond issuances" (hereinafter the "Allocation Report"). The respective Allocation Report was prepared for the reporting period 2022 by KfW (hereinafter the "Bank" or "KfW"), an institution organized under public law of the Federal Republic of Germany in accordance with the "Green Bonds – Made by KfW" Framework (hereinafter the "Framework") issued on 1 January 2022. The Allocation Report relates to Green Bonds issued by KfW in 2022.

Our limited assurance engagement was bounded to the accuracy of the information disclosed in the Allocation Report in regard to the appropriate allocation of the net proceeds from the 2022 Green Bond issuances to Eligible Green Projects from Eligible Categories as defined in the Framework (hereinafter the "Allocation").

Our engagement did not cover the following:

- whether the Framework meets the criteria of the 2021 edition of the Green Bond Principles issued in June 2021, as published by the International Capital Markets Association (the "Principles"),
- whether the loan programmes used for the allocation of proceeds in the Allocation Report are eligible in accordance with the Framework,
- the section "Environmental and Social Impact" of the Allocation Report,
- any information disclosed in the columns belonging to "Estimated environmental and social impact per € 1 million" in the section "Summary" of the Allocation Report,
- any external sources of documentation or expert opinions quoted in the Allocation Report

(hereinafter "Not Covered Information of the Allocation Report").

Our Engagement did not cover any aspect than the Allocation.

Responsibility of the Directors

The Directors of the Bank are responsible for the preparation of the Allocation Report in accordance with the Framework including but not limited to the information disclosed in the Allocation Report with regard to the allocation of the net proceeds from the 2022 Green Bond issuances to Eligible Green Projects from Eligible Categories as defined in the Framework. These responsibilities of the directors include the selection and application of appropriate methods and the use of assumptions and estimates for individual disclosures which are reasonable for the preparation of the Allocation Report under the given circumstances. Furthermore, they are responsible for the Framework's compliance with the Principles. The Directors are also responsible for the deployment of such internal control as they determine are necessary to enable the preparation of the Allocation Report that is free from material misstatement, whether due to fraud or error.

Responsibilities of the Independent Practitioner

Our responsibility is to express a conclusion with limited assurance on the accuracy of the allocation of the net proceeds as disclosed within the Allocation Report based on our work performed within our limited assurance engagement.

Our audit firm applies the Quality Assurance Standard: Quality Assurance Requirements in Audit Practices (IDW QS 1) promulgated by the Institut der Wirtschaftsprüfer (IDW) which comply with the International Standard on Quality Control 1 (ISQC 1) issued by the International Auditing and Assurance Standards Board (IAASB). We have fulfilled the professional responsibilities in accordance with the German Public Auditor Act (WPO) and the Professional Code of Conduct for German Public Auditors and Sworn Auditors (BS WP/vBP) including the requirements on independence.

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements Other than Audits or Reviews of Historical Financial Information", developed and approved by the IAASB. This Standard requires that we plan and perform the assurance engagement so that we can – with the exception of the Not Covered Information of the Allocation Report – conclude with limited assurance whether matters have come to our attention to cause us to believe that in all material respects the information disclosed in the Allocation Report with regard to the allocation of the net proceeds from the 2022 Green Bond issuances to Eligible Green Projects from Eligible Categories as defined in the Framework is inaccurate.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement; consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. The choice of assurance work is subject to the practitioner's professional judgment.

Within the scope of our limited assurance engagement, which was performed in February and March 2023, we notably performed the following work:

- Analysis of the design and implementation of the reporting process regarding the data on the use of proceeds in the context of financing projects which are refinanced through Green Bonds.
- Interviewing legal representatives and relevant employees to understand the criteria and processes underlying the generation, collection and management of the relevant qualitative and quantitative information contained in the report
- Reconciliation and verification of the consistency of the quantitative data in the report with the company's internal reporting
- Interviews and dialogues with the Bank's employees who are responsible for collecting and consolidating data on the use of proceeds
- Sample analysis with regard to the net proceeds
- Obtaining a declaration signed by the legal representative of the company on the accuracy and completeness of the information provided in the report and the information provided for the purpose of our work

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Practitioner's conclusion

Based on the work performed and evidence obtained, nothing has come to our attention that causes us to believe that in all material respects the information disclosed in the Allocation Report with regard to the allocation of the net proceeds from the 2022 Green Bond issuances to Eligible Green Projects from Eligible Categories as defined in the Framework is inaccurate.

Our opinion does not refer to the Not Covered Information of the Allocation Report.

Specific purpose

Without modifying our conclusion, we call attention to Section 6 “Reporting” of the Framework, where the applicable criteria are described. The Allocation Report was prepared to report on the allocation of net proceeds and associated impact metrics of the KfW Green Bonds, issued in 2022. Therefore, the Allocation Report may not be suitable for another purpose.

Restriction of Use and Reference to Limitation of Liability

This report is addressed to KfW, Frankfurt am Main, only. The report is not intended to provide third parties with support in making (financial) decisions. We assume no responsibility with regard to any third parties. We issue this report as stipulated in the engagement letter agreed with the Company. We are liable solely to KfW, Frankfurt am Main, and our liability is governed by that engagement letter dated 15 February 2023 as well as the “General Engagement Terms for Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]” (IDW-AAB) in the version dated 1 January 2017.

Frankfurt am Main/Germany, 20 March 2023

Deloitte GmbH

Wirtschaftsprüfungsgesellschaft

(Christian Schweitzer)
Wirtschaftsprüfer
(German Public Auditor)

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SHAPING THE FUTURE