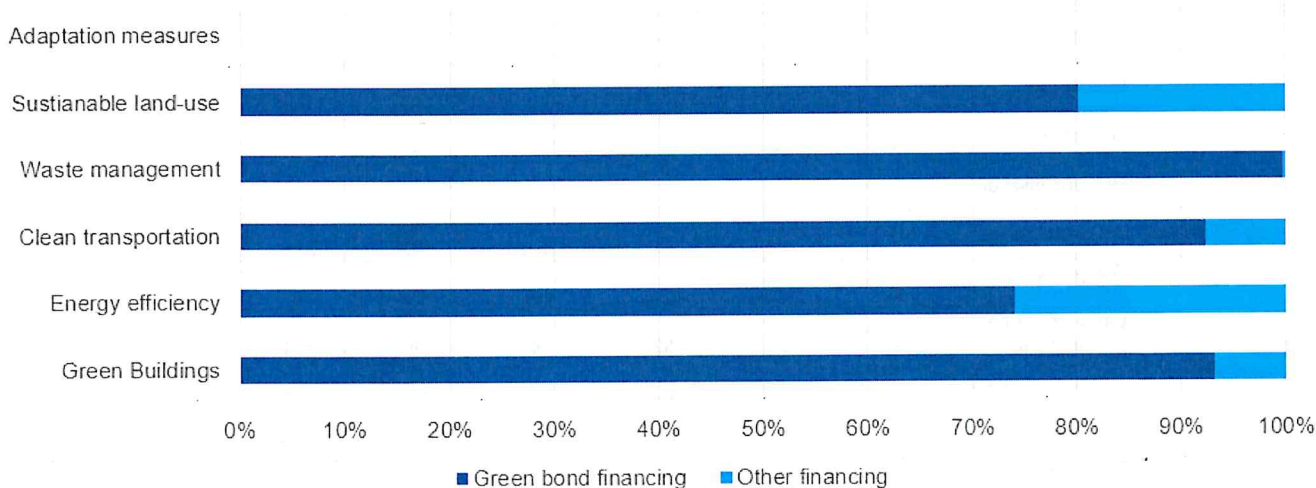
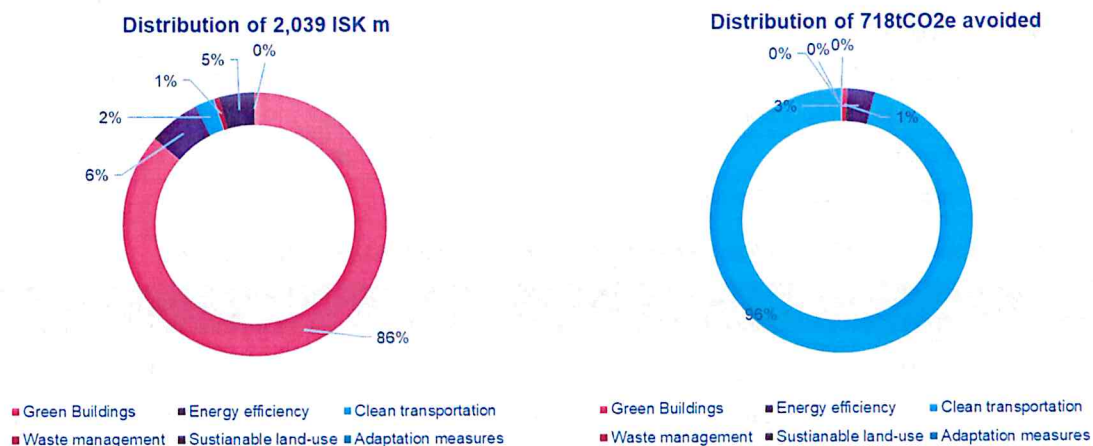


2022 Annual Green Bond Impact Report

In December 2018, the City of Reykjavík, the capital city of Iceland, established a Green Bond Framework¹ under which it has issued Green Bonds. City of Reykjavík (Reykjavík) was the first issuer of Green Bonds in Icelandic Krona (ISK) as well as having been the first Icelandic issuer to be listed on Nasdaq’s Sustainable Bond Index. Reykjavík’s Green Bond Framework received a second opinion from CICERO Shades of Green, a leading global provider of second opinions. Reykjavík received a ‘dark green’ rating on the overall framework and for each of the underlying project categories. In addition, it received an ‘excellent’ rating for its Green Bond governance.

In the year 2022 it issued a total of ISK 2,039 m of Green Bonds all of which were used to fund Eligible Projects (as defined in the Framework), the outstanding amount at year-end was ISK 0 m. The financed Eligible Projects in 2022 resulted in total avoided emissions of 718 tCO_{2e}, but the overall impact in 2022 from projects funded under the framework is considerably higher.² The donut graphs show the distribution of financing (left) and the avoided emissions (right). The tables on next page show accumulated funding and impacts from the funded Eligible Projects. Majority of the avoided impact comes from projects under the clean transportation category, walking and cycling paths contributing the most.



¹ The City of Reykjavík’s Green Financing Framework was established with a refinancing look-back period to 2016.

² For Eligible Projects funded by financing activities in the years 2019, 2020 and 2021, the resulting avoided emissions are 41,153 tCO_{2e} in the year 2022. The overall impact in 2022 is thus 718 + 40,434 = 41,153 tCO_{2e} as reflected in Table 2 on page 2.

Waste management	Gas og jarðgerðarstöðin	-	-	-	-	2,436	38,830	38,583	79,850
	Grendarstöðvar	-	-	-	-	-	-	-	-
Adaptation measures	No projects have been funded	-	-	-	-	-	-	-	-

About the City of Reykjavik

The City of Reykjavik, which governs approximately 137,000 people, has published an extensive climate policy in which it lays out its plan to become carbon neutral by 2040 and adapt to climate change. Reykjavik has furthermore signed the Covenant of Mayors in 2011, the objective of which is to implement EU climate and energy objectives, and participates in the Compact of Mayors, an agreement to undertake a transparent and supportive approach to reduce city-level GHG emissions and enhance resilience to climate change. The proceeds from the bond issuance have been used to fund projects reducing greenhouse gas (GHG) emissions and help the City of Reykjavik to achieve its climate objectives.

Green buildings

Dalskóli, a combined kindergarten, elementary school, and an after-school recreational centre, located in the Úlfarsárdalur area, in the eastern part of Reykjavik. In addition to providing positive social benefits in terms of access to education and essential service, the school's building is expected to achieve BREEAM 'Very Good' certification, which is underway, as required by the Green Bond Framework. The Sundhöll Reykjavíkur swimming pool has achieved BREEAM Very Good certification and is outperforming comparable swimming pools with regards to energy efficiency. The relatively modest climate change impact is a result of the low carbon intensity of energy supply for houses in Reykjavik, as electricity is supplied by hydropower and geothermal power plants. A BREEAM certified Very Good neighbourhood workstation was added in 2021, used to maintain public spaces in the area. A swimming pool, sports complex and culture hall were also all funded in 2021. The swimming pool and culture hall were opened in December 2021. A kindergarten is being built and Grófarhús which contains the city library, city archives and photograph museum is being renovated. Both projects will be BREEAM certified. There are efforts to improve data quality from the buildings under the green building category, it is expected that in the next impact report more information on the impact of the projects will be provided.

Green buildings	2016	2017	2018	2019	2020	2021	2022	Total	
				tCO2 equivalence					
Sundlaug			3.1	2.8	3.0	4.4	4.3	17.6	
Hverfisstöðin Örfyrisey					3.1	3.0	2.7	8.8	
Dalskóli	2.6	2.1	1.9	2.3	2.6	2.7	2.5	16.6	
Total	2.6	2.1	4.9	5.1	8.7	10.1	9.5	43.0	

Energy efficiency

LED lighting can provide light illumination with much lower energy consumption than by other means. Compared with conventional lighting, LEDs can be up to 40-60% more energy efficient while also providing more secure lighting to Reykjavik's citizens. In 2016, Reykjavik began the preparation for replacing incandescent bulbs in its street lighting. To date, almost 15,000 light bulbs have been replaced. The relatively modest climate change impact is a result of the low carbon intensity of energy supply for lighting in Reykjavik.

Energy efficiency	2016	2017	2018	2019	2020	2021	2022	Total	
				tCO2 equivalence					
LED lighting	0.0	2.0	2.0	15.6	15.1	21.6	24.1	80.4	
Total	0.0	2.0	2.0	15.6	15.1	21.6	24.1	80.4	

Clean transportation

The City of Reykjavik has a comprehensive plan to increase the share of cyclists in the city. A part of this plan is to construct and improve cycling routes. At year-end 2022, the construction of 24.4 km of cycling and walking paths have been financed with Green Bond proceeds.

The City of Reykjavík has further invested in biogas powered bin-lorries which avoid the use of fossil fuel when collecting waste from its residents. Charging stations for electric vehicles have been installed in various locations around Reykjavík. This infrastructure is crucial to minimize the population's dependence on vehicles using fossil fuel. In addition, the city has purchased electric cars to be used in its own operation.

Clean transportation	2016	2017	2018	2019	2020	2021	2022	Total
	tCO ₂ equivalence							
Walking and cycling paths	83.3	202.2	351.7	418.0	516.2	350.5	617.4	2539.2
Clean bin lorries	41.2	25.6	51.7	74.3	68.7	520.6	662.0	1444.1
E-vehicles	0.0	1.2	4.4	5.6	12.1	18.8	33.2	75.2
Charging stations	0.0	0.0	3.3	18.4	34.4	49.8	71.5	177.3
Total	124.5	228.9	411.0	516.2	631.4	939.8	1384.1	4235.8

Waste management

A valuable input in the transformation from fossil fuels dependence to renewables in transportation is the use of biogas which is already being produced in Iceland. Plans are to increase the capacity of such production in a new plant in Álfsnes. This biogas plant began operation in 2020.

The plant was not fully operational for the whole of 2020 which explains the increased avoided impact in 2021 and 2022. It was started up in later part of 2020 and was mostly operating in a start-up phase. The plant produced 975,942 Nm³ of biogas. Also funded in 2022 were new neighbourhood waste containers.

Waste management	2016	2017	2018	2019	2020	2021	2022	Total
	tCO ₂ equivalence							
Gas- and composting plant	0	0	0	0	2,436	38,830	38,583	79,850
Total	0	0	0	0	2,436	38,830	38,583	79,850

Sustainable land-use

Wetland reclamation is an effective way of preventing emissions of GHGs. The Icelandic government has defined wetland reclamation as one of the key actions to address climate change in order to meet the country's obligations towards the Paris Agreement.

In 2022, the City of Reykjavík did not reclaim much wetlands. The reduction of GHG emissions is due to previous year operations, which will continue for the next several years. The wetland reclamation project, when completed, is estimated to reclaim wetlands of over 87 hectares. In 2022 the planting of about 45,000 trees was funded but measurement of the growth has not been performed and thus the carbon sequestration from trees planting is not included. Also funded in 2022 planting of plants to increase the plant life in the city, also not included as measurements are not ready.

Sustainable land-use	2016	2017	2018	2019	2020	2021	2022	Total
	tCO ₂ equivalence							
Wetland reclamation	0.0	0.0	0.0	141.3	341.4	351.7	1151.7	834.3
Total	0.0	0.0	0.0	141.3	341.4	351.7	1151.7	1986.0

Methodology

Avoided greenhouse gas emissions, detailed in this report, are emissions that would have been emitted if the projects funded by Reykjavík's green bonds would not have been initiated. Methodologies used for these impact calculations are based on relevant international guidelines and standards.³ For the project categories 'green buildings' and 'energy efficiency', the avoided impact due to decreased electricity use is estimated based on Iceland's electricity grid carbon intensity of 10.3 gCO₂e/kWh. For the category 'clean transportation', a consequential life-cycle perspective approach was used. Fossil fuel vehicles are assumed to be replaced. For the cycling infrastructure, the cyclists are counted electronically in various locations around the city. These numbers were used to estimate the frequency of cyclists using the added infrastructure. The impact of the category 'sustainable land-use' was found by estimating the impact of wetland reclamation using relevant location-relevant factors. Recent research has shown avoided emissions to be 19.5 tCO₂e ha⁻¹yr⁻¹, which was applied proportionally to these impact calculations. The impact of the gas and composting plant was found by estimating the difference in impact between landfilling the waste processed and the production of gas to be used by vehicles and composting what remains.

KPMG's role

KPMG ehf. was appointed to calculate the positive environmental impact of Reykjavík's green bond funded operations at the year-end 2022. KPMG advised on the methodology, received necessary data from Reykjavík and calculated the financial impact. KPMG's engagement was not bound by any assurance standards nor provided an opinion.

12. April 2023

³ International Capital Market Association's Green Bond Principles' Handbook on Harmonized Framework for Impact Reporting (June 2022)



Grant Thornton

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Independent Auditor's Assurance Report

To the City of Reykjavik's City Council and Green Bond holders

Assurance scope

The scope of our work was limited to verifying that the proceeds of the Green Bond issue were used for funding selected eligible projects as reported in the Annual Green Bond Impact Report for 2022.

Responsibilities of The City of Reykjavik

The net proceeds from the Green Bond issue is managed by the City of Reykjavik's Office of Finance. It is the responsibility of the Office of Finance to allocate the proceed to the eligible projects selected by a Selection Committee and approved by the City Council. Office of Finance is also responsible for preparation of the Annual Green Bond Impact Report which is free from material misstatements, whether due to fraud or error, in accordance with the Green Bond Framework from December 2022.

Responsibility of the auditor

Our responsibility is to express an assurance conclusion for the subject matter at hand and which is included in the Annual Green Bond Impact Report, based on the procedures we have performed and the evidence we have obtained.

We conducted our assurance engagement in accordance with *ISAE 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial information* issued by the IASB.

Our independence and quality control

We have complied with independence and other ethical requirements of the Code of Ethics for professional Accountants issued by the International Ethics Standards Boards for Accountants which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We apply *ISQC 1 International Standard on Quality Control* and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Work performed

During our assurance engagement we reconciled the list of funded projects to the selected eligible projects. We performed assurance procedures on accounting transactions and capital movements in the Green Account. We have also reviewed the Annual Green Bond Impact Report for 2022 and performed assurance procedures on the completeness and accuracy of reported information as described on the Green Bond Framework.

Conclusion

Based on the assurance procedures we have performed and the evidence we have obtained, we conclude, in all material aspects, that the proceeds of the Green Bond issue has been used to fund the selected eligible projects as reported in the annual Green Bond Impact Report for 2022.

Reykjavík, 13 April 2023

On behalf of Grant Thornton endurskoðun ehf



Sturla Jónsson

State Authorized Public Accountant