Reykjavíkurborg

The City of Reykjavík Green Bond Framework

The City of Reykjavík

The City of Reykjavík is the capital of Iceland. It inhabits approximately 130,000 people or roughly 35% of Iceland's total population. It has an area of 273 km^2 and employed 6,928 full-time equivalent persons in the year 2017 and is responsible for public infrastructures such as public schools, roads, swimming pools, libraries, social welfare, museums, waste collection, and public transport.

The City of Reykjavík has furthermore established a climate policy along with its environmental and natural resource policy in order to reach its sustainability goals of carbon neutrality. Both electricity and space heating in the City of Reykjavík is provided with renewable energy resources, namely geothermal and hydro from nearby power plants[1]. The absence of fossil fuels for heating and electricity production leaves the transport sector as the main contributor of greenhouse gases within the City of Reykjavík. Its Climate Policy acknowledges this and provides goals on how to reduce emissions from the transport sector.

Climate Policy

The long-term vision of The City of Reykjavík is to reach net carbon neutrality by 2040. Its climate policy and its environment and natural resource policy demonstrate the road and objectives towards this particular goal. By the year 2030 it aims to have its automobile traffic at 58%, public transport at least 12%, and walking and cycling traffic at 30%.[2]

Emissions from transportation within the City of Reykjavík amounted to 70% of direct emissions in 2017 (scope 1: 244 thousand tCO_2e). Its goal is to have automobile traffic and public transport free of direct greenhouse gas emissions by 2040, which will be the main objective to reach carbon neutrality. Fuel pumps will be extinct in the City of Reykjavík by 2040, and will already be halved in numbers by 2030. Charging stations for electric vehicles will be installed in its parking garages and public street areas.

[1] More information about renewable energy in Iceland can be found here (https://orkustofnun.is/gogn/Frettir/Iceland_Leader_RenewableEnergy.pdf)
[2] This metric has been updated from previous policy and is, as it currently stands, more progressive. The Climate Policy can be accessed at https://reykjavik.is/en/reykjavik-and-climate

A key measure to reach this goal is to improve infrastructure for electric vehicles, cycling and public transport within The City of Reykjavík's geographical limits. By 2025, 100% of vehicles owned by The City of Reykjavík will be powered by energy free of direct greenhouse gas emissions.

The City of Reykjavík has also realised the potential in wetland reclamation and forestry and aims to reduce and offset its emission through measures related to wetland reclamation and forestry.

The environmental and natural resource policy of the City of Reykjavík consists of nine categories which are[3]:

- Resources: To ensure sustainable use of resources.
- Transportation: The ratio of public transportation should rise from 4% to 12%, the ratio of pedestrians and cyclists should rise from 19% to over 30%.
- Planning: The expansion of the urban area will be halted and at least 90% of new residential units will be inside the current urban area borders.
- Environmental quality: Environmental quality should be exemplary globally.
- Climate: Aim to reach net carbon neutrality before 2040[2].
- Sustainability in education: Sustainability will be visible in school curriculums of all kindergartens and elementary schools as well as in operational plans of after-school centres by end of the year 2014.
- Nature and recreation: A good connection for residents to outdoor areas will be ensured and the ratio of those living within 300m from recreational areas should stay at 92%. Residents will be encouraged to make use of recreational areas.
- Consumption and waste: Landfill waste disposal will be reduced and reusing and recycling increased. Estimated 80% of paper and cardboard, 60% of plastic, and all biodegradable waste to be reused by 2020.
- The City of Reykjavík's operation activities: Environmental impact stemming from the City of Reykjavík's operation activities will be specifically reduced, rendering it exemplary in this area.

The Green Bond is designed to fund projects that align with the City of Reykjavík's climate policy and have been demonstrated to deliver environmental benefits.

Management of proceeds

The net proceeds (hereafter referred to as proceeds) from this Green Bond issuance will be managed by the City of Reykjavík's Office of Finance. The management of proceeds will be conducted according to internal guidelines.

An amount equal to the proceeds of the issue of the bond will be credited to a special green budget account ("the green account"). The green account will fund a project if, and only if, the project is deemed eligible under this framework (see Eligible Projects and Selection of eligible projects below).

[3] The Environmental and resource policy can be accessed on page 33 in Reykjavík's municipal plan 2010-2030 on https://reykjavik.is/sites/default/files/reykjavik-municipal-plan-2010-2030.pdf. It has now also been supplemented by a Biodiversity Policy.

Funds from the green account can also be used to repay a green bond or to refinance projects that fall under the Green Bond Framework, using a look-back period to the year 2016. Until disbursement, proceeds can be used for short-term investments in money market deposits, bank notes, covered bonds and government bonds. Proceeds will not be used to invest in corporate stocks or bonds.

The City of Reykjavík will communicate how proceeds were allocated to Eligible Projects in its Annual Green Bond Impact Report. An external auditor will verify the allocation of funds, the external audit is also communicated through the Annual Green Bond Impact Report.

The environmental impact from funded projects will be estimated by internal and/or external sustainability experts and reported by through annual Impact Reports for investor documentation (see section on transparency and reporting below).

Eligible projects

The selection criteria are aligned with ICMA's Green Bond Principles[4] and the Position Paper on Green Bonds issued by the Nordic Public Sector Issuers[5].

Eligible projects are projects that assist the City of Reykjavík in the transition to a low carbon economy and align with its long-term climate policy. Eligible projects have quantifiable environmental benefits, with environmental mitigation and/or adaptation potentials. Projects which lead to increased fossil fuel use cannot be financed using proceeds from bond issuances that fall under this Green Bond Framework. Project categories which are intended to be financed using the green bond proceeds are:

Project category	UN SDG	Project examples
Green buildings	7, 12, 13	● New and retrofitted buildings are expected to have a "Very good"[6], "Excellent", or "Outstanding" BREEAM rating. The grading must include the following: ○ A screening for climate risk and resilience included in the design. ○ Electricity and space heating from 100% renewable energy sources. ○ Solutions for a car-free living and electric charging stations fuelled with 100% renewable energy sources.

[4] The ICMA Green Bond Principles are designed to guide issuers on areas to finance and improve transparency. They can be accessed through https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/
[5] Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting. October 2017.
[6] If a building receives a "Very good" rating it must have a 65% score or higher, based on BREEAM scoring system. Only building projects initiated in 2017 or earlier can have a "Very good" rating, newer buildings will have an "Excellent" or "Outstanding" rating.

Energy efficiency	7, 9, 13	● Technologies for reducing energy consumption, e.g. retrofitting led bulbs for street lighting. ● Energy efficiency projects can not include fossil fuel based technologies.
Clean transportation	7, 11, 13	● Urban rail or Bus Rapid Transit system for public transport. ● Infrastructure for bicycle transport. ● Infrastructure for EV charging. ● Infrastructure for e-bike charging. ● Transition to renewable energy in public transport.
Waste management	7, 9, 12	● Equipment for improving waste processing. ● Waste collection vehicles using renewable energy (such as electricity from hydro or geothermal and hydrogen), or alternative fuels such as methane from landfills. ● Increased methane collection from landfills for CNG production for public and private transport.
Sustainable land-use / environmental management	3, 6, 12, 14, 15	● Wetland reclamation and forestry within The City of Reykjavík's geographical limits. ● Document and preserve biodiversity. ● Urban planning for densification of the City of Reykjavík.
Adaptation measures	3, 11	● Mapping of risk due to rising sea levels. ● Blue-green/self-sustaining surface water solutions. ● Review of current flood prevention.

Selection of eligible projects

Eligible projects are selected by a Selection Committee and must align with The City of Reykjavík's carbon neutrality objectives in its Climate Policy, and have quantifiable environmental benefits.

The selection of projects to be funded through the Green Bond is carried out in the following steps.

1. The City of Reykjavík's City Council selects all general projects to be funded. A Selection Committee decides on which projects are funded using the proceeds from bond issuances that fall under this Green Bond Framework.

2. The committee consists of personnel from The City of Reykjavík's Office of Finance, the Office of Environment and Planning, and the Office of Property Management and Economic Development. The committee will screen and review potential projects that are aligned with the City's Climate Policy and rely on an environmental expert opinion.

3. The environmental opinion is based on environmental benefits estimated by internal and/or external sustainability experts. This analysis is conducted to verify and quantify the environmental benefits of projects to be funded. In this context, it is important to estimate the rebound effect for energy efficiency projects[7]. The information generated throughout this

[7] The rebound effect is observed when technological change leads to a change in the user's behaviour. This effect can reduce the observed environmental benefits from increased energy efficiency, as more energy may be used.

analysis is then used for investor impact reporting (see the following section). The screening process is based on the following indicators:

a. Life-cycle view on environmental impact.
b. Climate resilience screening.
c. Possible rebound effects.

4. Upon consensus, the committee presents the projects, which truly are aligned with this framework and have demonstrated positive environmental impact, to the City Council for final approval.

A list of funded projects and the environmental impact associated with those projects is kept by the Office of Finance.

Transparency & reporting

In order to provide investors with relevant information, the City of Reykjavík will publish Annual Impact Reports about the Green Bond. The Impact report will be published in parallel with its Annual Report in early Q2 each year. The Impact Reports will entail both financial and non-financial information about the funded projects.

- The total funding of eligible projects.
- Funds allocated to each project.
- Funds who have yet to be allocated.
- Accumulated environmental impact of the projects funded.
- Environmental impact associated with each project funded, measured in a relevant metric.

The Annual Impact Reports will be published on the City of Reykjavík's website and other relevant media and investor forums.

The environmental impact assessment will be conducted using the relevant indicators as indicated in the Position Paper on Green Bonds Impact Reporting published by the Nordic Public Sector Issuers (NPSI). Projects funded by the Green Bond are evaluated ex-post throughout the lifetime of the Green Bond to validate that they still comply with the eligibility criteria. Indicators generally quantify CO_2 emissions avoided or reduced and kWh's of energy saved in efficiency projects[8].

The above mentioned indicators are evaluated using the relevant methodology on a project by project basis. A summary on methodologies used for impact assessment will be provided along with the impact reports. The Impact Reports will, therefore, demonstrate to investors expected environmental impacts from projects that are to be funded but have not begun, and the environmental impacts from projects that have been funded and are now reaping the environmental benefits.

As stated by the NPSI, GHG reduction per invested monetary unit will be provided for individual projects where such reduction is quantifiable.

[8] The IFI has developed an approach for GHG accounting for energy efficiency projects, which is recommended by the NPSI. It can be found here: https://www.thegef.org/sites/default/files/file_attach/Joint-IFI-EE-GHG-Accounting-Approach.pdf

External Reviews

To ensure transparency and quality, the City of Reykjavík undergoes the following external review process:

- Audits are conducted by an external auditor to verify that proceeds are used for selected projects.
- This Green Bond Framework is reviewed by a second-opinion provider who verifies that the framework is aligned with ICMA's Green Bond Principles.
- Environmental impact assessments for funded projects are conducted by external sustainability experts to be published in the Annual Impact Reports.

All relevant information regarding the Green Bond, including the Green Bond Framework, the Second Opinion, the Annual Impact Reports will be published on the City of Reykjavík's website and other relevant media and investor forums.