



# Government of Iceland Sustainable Financing Framework Second Opinion

September 24, 2021

**Iceland is committed to reducing its greenhouse gas emissions by 55 % by 2030 and has a track record of a strong welfare system.** A revised Climate Action Plan outlining measures to reach the 2030 target was adopted in 2020. The two largest emission sources are industrial processes (43 %) and energy (fossil fuel combustion), mostly in road transport and fisheries (39 %). In 2020, Iceland was ranked as the fourth-most developed country in the world by the United Nations' Human Development Index.

**The Government of Iceland's sustainable financing framework is broad, covering many green, blue and social project categories.** The issuer expects around half of the sustainability instruments issued to be blue/green and the other half social. The issuer has excluded whaling, fossil and nuclear energy generation, weapons and defence, environmentally negative resource extraction, gambling, alcohol/tobacco, crypto-currency mining, livestock and fossil fuel machinery.

**A wide range of government expenditures, such as fiscal measures, operational cost, direct investments and transfers to governmental agencies, are eligible, subject to their alignment with the framework's criteria and objectives.** Eligible expenditures also include equity, lending to state-owned companies, subsidies and transfers to research institutions and NGOs. Associated administrative costs may be financed, but are capped at 15% of the expenditure. The government expects re-financing (of projects from 2017 to 2020) to account for approximately 40 % of total allocation.

**The first issuance is expected to be a green bond supporting the government's Climate Action Plan on transport, green buildings and nature conservation receiving respectively 30, 26 and 19 % of proceeds.** The largest clean transport expenditure is tax discounts for electric vehicles and investments in electric public transportation. Given that Iceland has access to renewable energy, it is a strength that the green buildings category emphasizes reducing emissions from building materials and transport. A key expense is the construction of a new national hospital with a BREEAM Excellent certification. Iceland has a quarter of its land under some form of protection. The nature and biodiversity conservation expenses include monitoring, research, forestry and land reclamation, with Iceland's Environment Agency and the Soil Conservation Service of Iceland expected to receive significant shares of funding. In the first green issuance, some 13 and 10 % of proceeds are expected

## SUSTAINABILITY BOND GUIDELINES

Based on this review, this framework is found in alignment with the green bond principles, the social bond principles and the sustainability bond guidelines.

CICERO Shades of Green finds the governance procedures in the Government of Iceland's framework to be **Good**.



## SOCIAL ASSESSMENT

Based on this review, the eligible social projects credibly aim to support the existing social infrastructure in Iceland, and there is adequate alignment between target populations, projected expenditures, and impact indicators.

## SHADES OF GREEN

Based on our review, we rate the Government of Iceland's blue and green issuances under this framework **CICERO Dark Green**. CICERO Green does not assign an overall shading for social bond issuances.



to fund circular economy and adaptation projects. Eligible expenditures in the circular economy category include research in capture of CO<sub>2</sub> from heavy industries and geothermal plants through the CarbFix method.

**Expected expenditures in the blue categories are small compared to the green ones (13%), with the main blue category being management of living natural resources.** The main receiver of proceeds in this category is the Marine Research Institute. Sustainable fisheries management on Iceland is dependent on robust monitoring of species and adequate protection, where this institute is central. The second largest category is clean vessels, where the electric ferry at Herjólfur is eligible. Eligible expenditures also include electrification of harbours and fishmeal plants.

**Social project categories address education, health, social inclusion, affordable housing, employment generation and socioeconomic advancement.** The expected expenditures will strengthen Iceland's already robust welfare system. However, this robustness also makes it quite difficult for users of the sustainable financing framework to ascertain whether the proceeds will enhance the services provided to residents of Iceland or simply maintain current levels. This undermines the ability of investors to have full confidence that their investment will enhance support to residents of Iceland outlined as target populations.

**The social categories for education, healthcare, social inclusion and affordable housing receive a Light Green shading, while the employment generation, socioeconomic advancement and empowerment is neutral in terms of environmental risks and benefits.** On the whole, the issuer's considerations of green and blue risks when making social investments, and of social risks when making green and blue investments, could be stronger. Since some areas of overlap exist between the social and green project categories especially relevant for investments in buildings this opens up for the possibility that less environmentally ambitious projects are classified as social projects, e.g. buildings larger than ISK 500m in the social categories need to have an environmental certification, but without a specified level. In order to deliver on the Paris Agreement, it is important that all projects aim for the highest environmental ambition possible, including making sure that climate risk is properly addressed, and we encourage the Government of Iceland to implement their framework stringently.

**Investors should be aware that there are physical climate risks associated with investments in the framework, in particular buildings and infrastructure.** Under the framework, assets and projects will be screened for climate risk and resilience, and there is focus on this in the green buildings category. However, physical climate risk is not yet systematically integrated in all national and local policies. Work is ongoing to update these with the current knowledge on a changing climate. A white paper on climate change adaptation was recently released by the government and work is ongoing to finalise a national climate adaptation plan in 2022.

**Proceeds and expenditures are clearly tracked in a dedicated registry managed by the Ministry of Finance, while proceed allocation will be subject to verification by Iceland's national auditor.** In the selection of projects, the responsible committee also screens for legal risks. Impact reporting is extensive and in line with relevant international guidelines, but some impact metrics are however subject to data availability. A third party may be engaged for impact calculations. We find the governance procedures to be **Good**.

**The framework is likely to contribute to setting Iceland's transport and buildings sector on a path towards the long-term vision of a low carbon future, while also likely contributing to higher levels of nature and biodiversity preservation.** The Government of Iceland's framework includes also medium green categories but receives an overall **CICERO Dark Green** shading for green and blue sustainability instruments. CICERO Green does not assign an overall shading for social bond issuances. The CICERO Green shading for combined issuances will depend on the relative weight of the relevant green, blue and social project categories for the issuance.



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# 1 Terms and methodology

This note provides CICERO Shades of Green’s (CICERO Green) second opinion of the client’s framework dated September 2021. This second opinion remains relevant to all green, blue and social bonds, loans, bills and/or other debt instruments issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client’s policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

## Expressing concerns with ‘Shades of Green’

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

### CICERO Shades of Green



**Dark green** is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated.



**Medium green** is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Physical and transition climate risks might be considered.



**Light green** is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant short-term GHG emission reductions, but need to be managed to avoid extension of equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the physical and transitional climate risk without appropriate strategies in place to protect them.

### Examples



Wind energy projects with a strong governance structure that integrates environmental concerns



Bridging technologies such as plug-in hybrid buses



Efficiency investments for fossil fuel technologies where clean alternatives are not available

## Assessment of social benefits and risks

The Second Opinion for the client’s sustainable financing framework also accounts for social dimensions of the framework in total and of eligible social asset categories in particular. IISD provides expertise on social benefits and social risks to be considered for the financing of infrastructure and other projects with environmental and social targets. The social benefits, consistency and effectiveness of eligible social asset categories of this framework are reviewed against the client’s overall social targets and the United Nations Sustainable Development Goals (SDGs). SDGs highlighted by the client are assessed by clarifying which specific SDG targets are supported by each eligible social asset category. Moreover, the assessment points to relevant SDGs and targets that may not have been identified by the issuer. This reference framework for analyzing the benefits of social asset categories



was chosen because SDGs are increasingly accepted and applied within the (impact) investment community, and many countries are working actively on implementing the SDGs. The International Capital Market Association (ICMA) encourages paying attention to the SDGs as they published an updated 2020 version of their high-level mapping on the alignment between the SDGs and green/social asset categories of Green/Social/Sustainability Bond Frameworks. Social risks of eligible green and social asset categories are assessed based on IISD's extensive experience from infrastructure sustainability assessments as well as best practice guidelines and safeguards (such as the Environmental and Social Performance Standards of the International Finance Corporation). The assessment covers the bond issuer's capacity for anticipating and assessing adverse social risks when selecting eligible green and social projects. It is also reviewed whether the issuer has implemented policies that require project beneficiaries to have systems in place to avoid, reduce or minimize adverse social impacts.

### **Governance assessment**

Sound governance and transparency processes facilitate delivery of the client's climate, environmental and social ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green, blue and social bond are carefully considered and reflected in the overall shading. CICERO Green considers four factors in the review of the client's governance processes: 1) the policies and goals of relevance to the sustainable financing framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.



## 2 Brief description of Government of Iceland's sustainable financing framework and related policies

Iceland is a Nordic island country with a population of 356,991, making it the most sparsely populated country in Europe. The capital Reykjavík is, with its surrounding areas, home to over two-thirds of the population. Iceland is volcanically and geologically active. Iceland is a parliamentary democracy with a Nordic welfare system, including universal health care. The three main economic sectors are tourism, seafood and aluminum.

The Government of Iceland is committed to achieving the objectives of the Paris Agreement on Climate Change and the UN Sustainable Development Goals (SDGs). Iceland, although not an EU member, is through its membership in the European Economic Area (EEA) well integrated with the EU on a number of areas, including climate and environment.

In 2020, Iceland was ranked as the fourth-most developed country in the world by the United Nations' Human Development Index. The Icelandic welfare state is based on respect for human rights, equality, inclusion, human dignity and access for all to essential services. In perpetuating a high standard of living of its citizens, sustainable development has been a long-time national priority for Iceland. Since the first national strategy, "Welfare for the future", was adopted in 2002, the country has developed and implemented successive policies towards sustainable development. Most recently, the Iceland 2020 government policy statement for the economy and community outlined social objectives related to knowledge, sustainability and welfare. The policy contained 20 quantifiable objectives targeted at improving well-being, gender equality, education and Iceland's climate impact.

### National Strategies and Policies

#### *Climate and environmental policies*

Under the Paris Agreement, Iceland aims at being carbon neutral in 2040 and has adopted a target of 55 % net reduction of greenhouse gas emissions by 2030 compared to 1990. This target is to be achieved within the framework of a climate cooperation agreement with the European Union, its Member States and Norway. The agreement means that the following EU regulations apply to Iceland:

- Effort Sharing Regulation. Iceland is committed to binding annual greenhouse gas emission targets for the period 2021–2030 for the sectors outside the scope of the EU Emission Trading System (EU ETS), namely the agriculture, transport, waste and building sectors. Iceland has the same obligations and flexibilities as EU Member States. Iceland's 2030 target under this regulation for the sectors outside the EU ETS is a reduction of 29 % compared to 2005. This target is based on the previous 40 % EU goal, and will be increased. The revised target for each country under the effort sharing regulation is yet to be determined as the EU is currently working on a legislative package to align all its regulation with the 55 % target. To follow up on the yearly emission targets, the regulation entails a compliance exercise for two five year periods (2021-2025 and 2026-2030) and regular reporting on progress.
- Regulation on Land, Land-Use Change and Forestry (LULUCF): Iceland must ensure that greenhouse gas emissions from land use, land use change and forestry are balanced by at least



an accounted equivalent removal of carbon dioxide from the atmosphere in the period 2021–2030, the so called ‘no-debit’ rule.

In addition, Iceland continues to participate in the EU ETS, as it has done since 2008, covering more than 40 % of the country’s emissions. The EU-wide cap on emissions under the EU ETS is decreasing every year and under current regulations, the emissions cap in 2030 is 43 % lower than 2005 emissions.

Iceland has developed a Climate Action Plan (CAP) outlining how it will meet its 2030 emission reduction target. Iceland intends to achieve the required emission reductions through domestic measures, without contribution from international credits. Nevertheless, Iceland has requested access to the flexibility to transfer 4 % of its EU ETS allowances to potentially cover emissions from the sectors outside the EU ETS, but this flexibility will only be used if strictly necessary.

The CAP was presented in 2018 and thoroughly revised in 2020. It outlines 48 mitigation actions across all relevant sectors. 15 new actions were added in the recent review. The 2020 update of the Climate Action Plan includes a target of spending ISK 46 billion (EUR 311 m, approx. 2% of GDP) for the period 2020-2024.

Iceland’s GHG emissions profile is unusual in many respects:

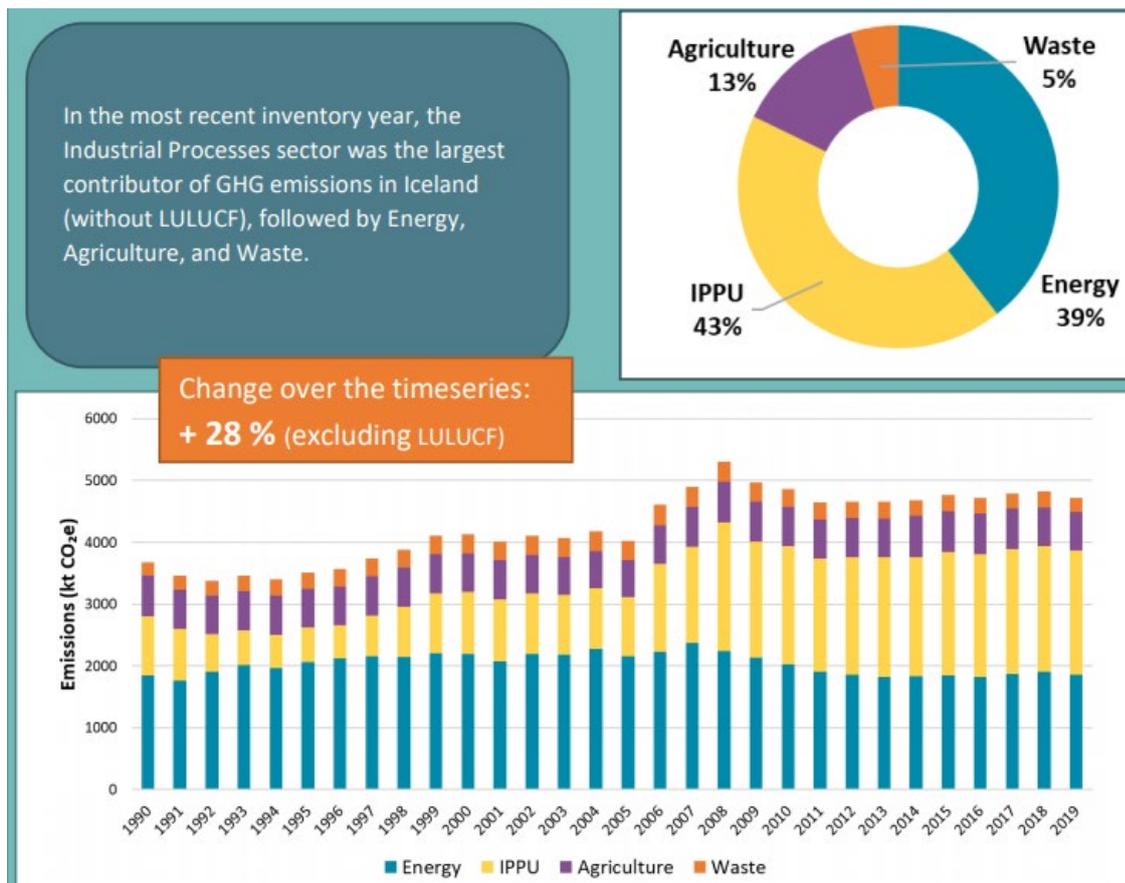
- Emissions from electricity generation and space heating are very low due to renewable energy sources (geothermal and hydropower).
  - The country currently produces 99.99% of its electricity using renewable energy<sup>1</sup> and 97.4% of the heating used is provided by geothermal energy.<sup>2</sup> Some emissions of CO<sub>2</sub> in geothermal steam are attributed to geothermal energy production (3% of total emissions).
  - Energy sector emissions are dominated by emissions from land transport (cars, buses, light and heavy duty trucks) and fisheries (international navigation excluded) (see Figure 2).
- Individual sources of industrial process emissions have a significant impact on total national emissions. Expansion in production capacity as well as start of new operations have visibly impact the country’s emission profile, as for instance the start of new aluminium smelters in 1998 and 2007. Meanwhile, emissions from the industry sectors covered by the EU ETS have been relatively stable since 2005. Primary aluminum production makes up 76 percent of Iceland’s EU ETS emissions, followed by production/processing of ferrous (20 %) and non-ferrous (3 %) metals.
- Emissions from the Land Use, Land Use Change and Forestry (LULUCF) sector are relatively high. These have remained relatively constant since 1990. Recent research has indicated that there are significant emissions of CO<sub>2</sub> from drained wetlands and land erosion. These emissions can be attributed to drainage of wetlands in the latter half of the 20th century<sup>3</sup>, which had largely ceased by 1990.

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<sup>1</sup> Orkustofnun (2020). OS-2020-T012-01: Installed capacity and electricity production in Icelandic power stations in 2019

<sup>2</sup> Orkustofnun (2020). OS-2020-T010-01: Final Heat Use in Iceland 2019 by District Heating Area.

<sup>3</sup> National Inventory Report, Iceland 2020.



IPPU stands for “industrial processes and product use” and covers the greenhouse gas emissions resulting from various industrial activities that produce emissions, but not coming from energy consumption, and the use of man-made greenhouse gases in products. Typical examples on Iceland are emissions from the carbon anodes used in aluminum production.

Figure 1: Excerpt from Figure 2.1 in National Inventory Report for 2021 (from top to bottom): (1) emissions by sector in 2019, (2) emissions by UNFCCC sector over the time series, without LULUCF.

The most recent available emissions data is for 2019. Iceland’s emissions of greenhouse gases amounted to 4.7 million tons in 2019, without emissions from the LULUCF sector. The two largest sources of emissions are industrial processes (43 %) and energy (burning of fossil fuels, mostly in road transport and fisheries (39 %)⁴. 2019 emissions were 28 % higher than in 1990. The significant increase is due to three main developments: the expansion of the metal production industry (in particular aluminium), increases in emissions from geothermal energy utilization (due to higher electricity production) and a doubling of CO<sub>2</sub> emissions from road transport due to increases in population, number of cars per capita, mileage driven and in the share of larger vehicles.

⁴ National Inventory Report, Iceland 2021.

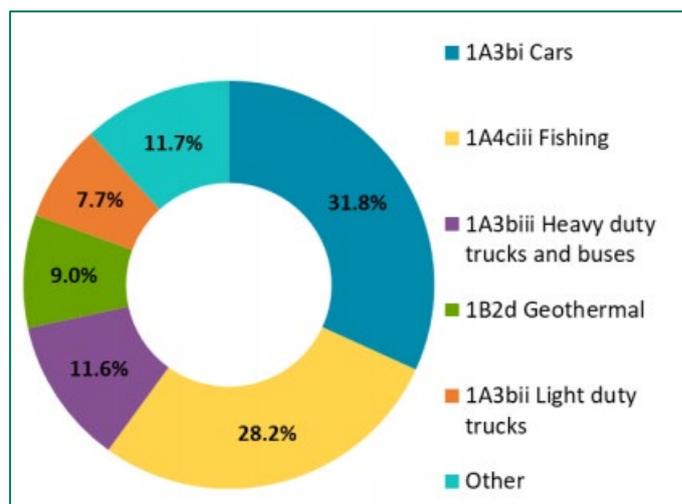


Figure 2: Distribution of greenhouse gas emissions by sub-sector within the energy sector in Iceland, source: National Inventory Report 2021.

In this context, additional measures and policies need to be implemented for Iceland to reach its 2030 target. In the revised CAP, emphasis is put on a rapid clean energy transition in transport and increased efforts in the LULUCF sector (carbon sequestration and restoration of wetlands). The plan also covers other major sources and sinks, with the largest emission reductions percentage-wise planned to be achieved in ships and ports, energy production and small industry, as well as waste management. According to analysis done for the government, emission reductions from the actions quantified in the CAP are estimated to bring non-ETS emissions down 35 % compared to 2005 levels in 2030.

In 2020, the government released an energy policy for 2050, which is aligned with the CAP, and which vision is that in 2050 all energy production is to be made from renewable sources and developed in a sustainable and socially beneficial manner. The aim is to balance the protection of nature and natural resources on Iceland and the use of energy resources. Among other, the 2050 vision includes that all fossil fuels are replaced by renewable energy (including in the transport and maritime sector).

Iceland does currently not have a climate adaptation plan, but it is currently under development and a white paper has recently been released. The white paper covers, among other, buildings and urban development. According to the Icelandic meteorological office, glacier retreat, reduction and shifts in pelagic fish populations, higher ocean acidification than the global average and natural hazards (such as landslides and floods) are the main physical climate risks faced by Iceland. The Icelandic government has assessed the potential impacts to the hydroelectric power capacity of glacial melt and work is ongoing to upgrade the resilience of the electricity transmission network. Finally, the state-owned flood fund and Icelandic Catastrophe Insurance (ICI) contribute to financial resilience against natural disasters. All publicly owned buildings are covered by the ICI, which covers natural disasters, including direct damage caused by volcanic eruption, earthquake, floods and landslides.

Fishing has always been a crucial source of employment and nutrition for Iceland's population. Going forward, the issuer considers the three main challenges in the maritime sector to be sustainable fisheries, the impacts of ocean acidification, and pollution (especially plastic pollution). The Icelandic government has made significant efforts to prevent overfishing and illegal fishing. To restore fish stocks to a sustainable level and avert a looming crisis, the Icelandic government introduced a comprehensive system of individual transferable quotas via the Fisheries Act in 1990. OECD, in a report published in 2017, recognized that "The Icelandic fishing management system is seen as a success in terms of economic efficiency and as a way of drastically reducing fishing effort to



safeguard the sustainability of fish stocks”.<sup>5</sup> Fish and fish products are Iceland’s main export industry, in addition to aluminum, medical products and ferro-silicons.

### *Social policies*

Iceland’s welfare model builds is guided by the SDGs, and respects the following government-ratified conventions: European Convention for the Protection of Human Rights and Fundamental Freedom; International Convention on Civil and Political Rights; European Social Charter; International Covenant on Economic, Social, and Cultural Rights; UN Convention on the Rights of the Child, UN Convention on the Rights of Persons with Disabilities. The spirit of the welfare state is based on respect for human rights, equality, inclusion, human dignity, and access for all to essential services.

### *Access to essential services – Education*

In Iceland’s Educational Policy 2030 (EP2030),<sup>6</sup> the government set out objectives for diverse and individualized study programmes based on underlying values of welfare, happiness, equality, inclusion, togetherness and mutual respect for different backgrounds to ensure the development of the educational system fulfil the needs of the society. The main goal of the policy is to provide access to all the essential educational infrastructure and service, regardless of the economic status.

In its 2019 Voluntary National Review (VNR)<sup>7</sup> of its implementation of the 2030 Agenda for Sustainable Development, the Prime Minister’s Office highlighted the conservation of the future of the Icelandic language, increasing the number of teachers, growing the number of students in technical and vocational studies, reducing the drop-out rate in upper secondary schools and the education of pupils whose mother tongue is not Icelandic as the main challenges facing Iceland’s education system. Despite these challenges, 99.5% of 15-year olds attended mainstream compulsory schools and Iceland boasts the lowest proportion of young people aged 18-24 years of age in neither school nor work among OECD countries.

### *Access to essential services – Healthcare*

Iceland’s health care system is based on the fundamental value of being accessible to all regardless of economic status.<sup>8</sup> Its objective is to provide accessibility to the ‘best available healthcare services for all’ regardless of economic status with the focus on physical, mental and social health.

The health system in Iceland is robust. The sole challenge facing Iceland to meet all of health-related SDG commitments is to increase the proportion of births attended by skilled health personnel from 97.9% to 100%.<sup>9</sup> In its VNR, the Iceland government noted strides made to address alcohol and drug abuse and increased access to psychological services through primary health care. A changing demography with lower birth rates and challenges linked to recruiting health care personnel are viewed as long-term issues that the government will need to address.

### *Access to essential services – Social Inclusion*

Iceland has noted a need to provide better access to essential services for population groups at risk of social exclusion. As part of these efforts, the government provides financial assistance to vulnerable populations to ensure their inclusion in society. Specific vulnerable populations identified by the government include people

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<sup>5</sup> Sustaining Iceland’s fisheries through tradeable quotas, Country study, OECD Environment Policy Paper 9: [Policy-Paper-Sustaining-Iceland-fisheries-through-tradeable-quotas.pdf \(oecd.org\)](https://www.oecd-ilibrary.org/education/iceland-education-policy-2030-and-its-implementation_6e9d2811-en)

<sup>6</sup> [https://www.oecd-ilibrary.org/education/iceland-education-policy-2030-and-its-implementation\\_6e9d2811-en](https://www.oecd-ilibrary.org/education/iceland-education-policy-2030-and-its-implementation_6e9d2811-en)

<sup>7</sup> [https://sustainabledevelopment.un.org/content/documents/23408VNR\\_Iceland\\_2019\\_web\\_final.pdf](https://sustainabledevelopment.un.org/content/documents/23408VNR_Iceland_2019_web_final.pdf)

<sup>8</sup> [https://www.government.is/library/01-Ministries/Ministry-of-Health/PDF-skjol/Heilbrigdisstefna\\_english.pdf](https://www.government.is/library/01-Ministries/Ministry-of-Health/PDF-skjol/Heilbrigdisstefna_english.pdf)

<sup>9</sup> <https://dashboards.sdgindex.org/profiles/ISL>



living under the poverty line, people with disabilities, migrants and displaced persons, women and sexual and gender minorities, as well as aging populations and vulnerable youth.

### *Affordable Housing*

A secure home is a key premise for the welfare of every family. Housing security for all residents of Iceland is the principal objective of the government's public housing policy; to provide access to affordable housing to vulnerable population, as well as providing financial support for those who need it.<sup>10</sup>

Iceland's VNR reported that in 2014, housing expenses as a proportion of renters' disposable income was 24.3%, and the proportion of tenants who had to bear onerous housing costs was 18.7%. Also, the average waiting time for social rental housing was 26.6 months. To respond to this, a task force was created to improve the housing market situation as it was deemed there was not enough supply of affordable housing. In 2019, the task force provided 40 proposals to the Prime Minister's office and more construction is underway. Despite these actions, it is estimated that two thousand apartments will still be needed by the beginning of 2022.

### *Employment generation and socioeconomic advancement and development*

While the unemployment rate in Iceland is low, the government still finds it necessary to direct investment towards supporting the employment of elderly and long-term unemployed people, as well as provide professional transition training schemes. The government also supports SMEs; in particular those that are impacted by the consequences of extreme events.

To meet future needs for decent jobs, Iceland's government is focused on productivity in all sectors. Recent increases in productivity in Iceland have been achieved by diversification, technological advances and innovation. Other recent trends that will have significant impacts on the quality of employment opportunities generated include Iceland's policy in fisheries and agriculture to further increase the utilization of inputs in a sustainable manner and efforts to reduce the carbon footprint of Iceland's growing tourism industry.

### **Use of proceeds**

The Government of Iceland's sustainable financing framework includes debt instruments (bonds, loans, bills and/or other types) in three categories: green (seven project categories), blue (four project categories) and social (four project categories). The blue category includes marine and ocean-based projects that have environmental, economic and climate benefits. The Government of Iceland has at this stage not concluded on what portion of proceeds under this framework will go to the different categories but expects an approximately 50/50 split to green/blue and social. There may be individual issuances to fund i.e. only green, only blue or only social projects, or any combination of those categories as sustainability instruments.

An amount equal to the net proceeds from the sustainability instruments will be used to finance or refinance public expenditures. Proceeds from the sustainable financing framework can fund both existing and new expenditures. New financing refers to expenditures for activities initiated in the same year as financing has taken place. Refinancing refers to activities initiated the year before financing has taken place or earlier. The issuer expects to re-finance projects going back to 2017. The government expects that re-financing projects from the period 2017 to 2020 to accounts for approximately 40 % of the total, but this is subject to uncertainty as the projects are still being analysed.

Under the framework, eligible expenditures are limited to central government budget expenditures. These include direct investment expenditures, onlending (lending to state-owned companies), subsidies, fiscal measures (tax

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<sup>10</sup> <https://www.government.is/topics/housing/>



credits) and selected operational expenditures to the extent they are contributing to the government's sustainability objectives and comply with the criteria in at least one of the project categories.

Administrative charges can be accepted in so far as they represent less than 15 percent of the expenditure and are necessary for achieving the projects' objective.

The issuer states that proceeds, including any unallocated proceeds, will not be placed in assets, projects, or in entities related to the following activities or sectors focused on fossil energy generation, nuclear energy generation, research and/or development within weapons and defence, environmentally negative resource extraction (such as rare-earth elements or fossil fuels), gambling, alcoholic beverages or tobacco.

### **Selection**

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for sustainable finance funding. The broader the project categories, the more importance CICERO Green places on the governance process.

An inter-ministerial Sustainability Committee is responsible for the evaluation and selection of eligible expenditures. The committee is headed by the Ministry of Finance and Economic Affairs. It consists of representatives from at least the Ministry of Environment and Natural Resources, Ministry of Industries and Innovation, and Ministry of Welfare. Subject matter experts, both internal and external, may be consulted. Committee decisions are taken by consensus.

Selection of eligible expenditures will be performed at least on an annual basis and consists of three steps:

1. Firstly, the Ministry of Finance prepares an initial list of potential eligible expenditures by identifying expenditures in the central government budget that comply with the criteria in at least one of the project categories and meet the definition of eligible expenditures.
2. Relevant ministries are responsible for submitting an activity and/or project to the committee for its assessment.
3. The committee assesses whether the submitted expenses comply with the criteria and thresholds set in the sustainable financing framework, and approve the selected expenditures. The committee also assesses the legal risks of the submitted projects.

### **Management of proceeds**

CICERO Green finds the management of proceeds of Government of Iceland to be in line with the Green Bond and Social Bond Principles.

The Ministry of Finance will establish and maintain a Sustainability Registry for recording proceeds from the sustainable bonds of this framework, as well as expenditures.

The allocation of the proceeds of the issued sustainability instruments to eligible expenditures will be reviewed and approved by the Sustainability Committee on, at least semi-annually basis, until full allocation. In case that a project doesn't meet the requirements anymore, it will be removed, and the expenditures of the year will be excluded. In case of legal controversies associated with a project, the Sustainability Committee will assess, in consultation with relevant ministries, if the project is to be maintained or removed from the Sustainability Registry.



The issuer states that it wants to fully allocate proceeds from its sustainability instruments under the framework within the following three calendar years from the year of financing. Unallocated proceeds may temporarily be placed in cash, cash equivalents, or other liquid marketable instruments, preferably other financial instruments presenting criteria similar or equivalent to the categories of its sustainable financing framework, such as green bonds or green deposit accounts.

## Reporting

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of sustainable finance programs.

The Ministry of Finance will publish a public annual report in English in line with its general annual reporting cycle until net proceeds are fully allocated. The report will cover both allocation of proceeds and impact reporting. The issuer states that the intention is to report for each individual bond issuance. The Sustainability Registry maintained by the Ministry of Finance will form the basis for this reporting.

The allocation reporting will be at both aggregated and project category level. It will include a summary of the financed activities, the types of instruments issued, outstanding amounts, balance of unallocated proceeds, financing vs. refinancing ratio, allocation to the different expenditure categories, geographical distribution and a selective list of funded projects.

The issuer states that reporting will be in accordance with international guidelines and protocols, which may include the following:

- Multilateral Development Banks's Proposal for a harmonized framework for impact reporting on Renewable Energy/Energy Efficiency projects (2015)
- International Capital Markets Association's Handbook on Harmonized Framework for Impact Reporting (2021)
- Nordic public sector green bond issuers' Position Paper on Green Bonds Impact Reporting (2020)
- EU Green Bond Standard

The issuer points to the fact that impact reporting is subject to availability of information and baseline data at the time of the reporting. Moreover it is stated in the framework that data may be subject to confidentiality agreements, competitive considerations, and other such factors, which may limit the scope of impact reporting. Indicators include, but are not limited to, the following: an estimation of reduced/avoided GHG emissions per year, number of clean vehicles (categorized according to technology), number of qualified buildings and level of certification, hectares of land transformed, reclaimed or protected, as well as proportion of fish stocks within biologically sustainable levels and ocean acidity measured at agreed suite of representative sampling stations.

The government intends to make an auditor from the Icelandic National Audit Office perform a verification of the allocation of the proceeds of issued instruments under this framework. The government is also considering to engage a third party for impact calculations. The reports from the verification of both allocation of proceeds and impact calculations will be publicly available on the government website.



### 3 Assessment of Government of Iceland's sustainable financing framework and policies

The framework and procedures for the Government of Iceland's green, blue and social investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where the Government of Iceland should be aware of potential macro-level impacts of investment projects.

#### Green shading

Based on the overall assessment of the green, blue and social project types in this framework, and governance and transparency considerations, the Government of Iceland's sustainable financing framework receives a **CICERO Dark Green** shading for green and blue sustainability instruments. CICERO Green does not assign an overall shading for social bond issuances. The CICERO Green shading for combined issuances (sustainability bonds) will depend on the weight of social vs green assets in the use-of-proceeds section of such bonds.

#### Eligible projects under the Government of Iceland's sustainable financing framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental and social benefits. Through selection of project categories with clear environmental and social benefits, sustainable financing frameworks aim to provide investors with certainty that their investments deliver environmental and social returns as well as financial returns.

The proceeds of the green, blue and social instruments issued by the Government of Iceland will be allocated to certain central government budget posts that comply with the criteria, thresholds and contribute to the stated objectives of at least one of the project categories. These budget posts include tax discounts and subsidies, direct investments and selected operational expenditures by government agencies, national parks, NGOs, universities, hospitals and research institutions, as well as lending to state-owned companies. According to the issuer, administrative costs are also eligible for green, blue and social instruments funding, but these are, for each eligible expenditure, capped at 15 % of the proceeds.

The following three tables provide an assessment of the eligible green, blue and social asset categories. The Government of Iceland expects to allocate approximately 50 % of proceeds to green and blue projects and 50 % to social asset categories. The final distribution of proceeds will depend on the decision taken by the sustainability committee. The largest project categories in the first green issuance are expected to be clean transportation, green buildings and management of living natural resources, with projected shares of 30, 26 and 19 % in the first issuance.



The following table provides an assessment of the eligible green asset categories:

Green category and objectives	Eligible expenditures	Example expenditures	Green Shading and some concerns	Social considerations and some concerns
<p>Clean transportation</p> <p>Objectives:</p> <p>— Improve and promote clean transportation systems and reduce vehicles carbon intensity / emissions.</p> <p>Sustainable Development Goals (SDGs) number: 9.1, 9.4, 11.2 and 13.2</p>	<p>— Vehicles (below threshold no. 1 applies): any vehicle using electric, hydrogen, or biogas/landfill gas methane, or other zero mission transportation equipment, e.g. bicycles and scooters. Dedicated vehicles solely using advanced biofuels (thresholds no. 2, 3, and 4 apply) or renewable liquid and gaseous transport fuels of non-biological origin.</p> <p>— Public transport (threshold no. 5 applies): fully electrified or other low-carbon (biogas and hydrogen) busses, trains, trams, or ferries.</p> <p>— Infrastructure: any construction, expansion, equipment, and improvements of infrastructure supporting vehicles, and/or public transport as defined above.</p>	<p>Vehicle subsidies: VAT discounts to electric cars.</p> <p>Electric buses for Borgarlinan (rapid bus system in Reykjavik).</p>	<p><b>Dark Green</b></p> <ul style="list-style-type: none"> <li>✓ Electric vehicles and hydrogen (from renewable sources) are important low carbon solutions. The issuer is currently not expecting biofuels to receive a significant share of proceeds under this framework.</li> <li>✓ From a life cycle perspective, public transportation is less resource and emissions intensive than privately owned cars.</li> <li>✓ While electric modes of transportation are preferable to those that directly use fossil fuels, investors should nevertheless be aware of the indirect GHG emissions stemming from the production and use of new vehicles. The production of such vehicles, in particular the production of batteries and the sourcing of raw materials, can have substantial climate and environmental impact.</li> <li>✓ For some types of vehicles, in particular heavy duty vehicles, electric technologies are not yet available on a large scale. For these types of vehicles, biofuels, biogas and other types of fuels where the energy content is derived from renewable sources other than biomass (so-called “renewable liquid and gaseous transport fuels of non-biological origin”) have an</li> </ul>	<ul style="list-style-type: none"> <li>✓ Affordable access to public transit benefit all populations, but can have greater impact on vulnerable and marginalized population if they use these modes of transportation more frequently.</li> <li>✓ Increased access to transport increases the likeliness of achieving gender equality, education, and health objectives.</li> <li>✓ Vehicle subsidies disproportionately benefit populations who can afford to purchase vehicles.</li> <li>✓ If public transportation networks are mostly in urban areas, populations in these areas will benefit more than rural populations.</li> </ul>



- and quadricycles: eligible if they have zero CO<sub>2</sub> emissions. Heavy commercial vehicles: eligible if they have zero CO<sub>2</sub> emissions.
2. Only rapeseed oil that has a valid certification from any of the voluntary schemes approved by the EU commission for biofuels.
  3. Other first-generation biofuels are not eligible.
  4. As defined in Art. 2 (34) and Art. 2 (36) Directive (EU) 2018/2001 as well as certified low-ILUC biofuels are eligible.
  5. Emit below the defined threshold of  $\leq 50$  gCO<sub>2</sub>e/pkm until 31 Dec 2022. From 2023 0gCO<sub>2</sub>/pkm.

important role in reducing emissions from the transport sector.

- ✓ Biogas is part of the circular economy, as it forms part of a closed loop in which waste, wastewater, forestry and industrial residues are used in renewable products such as fuel, electricity and heat. Biogas is normally produced from organic waste that has few other uses: this is positive from a resource efficiency perspective.
- ✓ Generating transport fuels from landfill gas methane avoids the methane from being emitted to the atmosphere.
- ✓ As with any activity, the production and use of biogas entails some emissions (including methane) and discharges to the environment (e.g. plastic pollutants). These environmental impacts should be sought to be minimized.
- ✓ Not all types of biofuel are sustainable, due to risks of indirect land use change such as deforestation and risks of negative impacts on biodiversity. Sourcing is key to ensure lower life cycle emissions than fossil fuels. The framework's limitation of eligible biofuels to advanced biofuels as defined in article 2 (34) of the recast EU renewable energy directive, to certified low-ILUC biofuels (regulation 2019/807), as well as to rapeseed from any schemes approved by the EU commission (no such schemes are yet approved) mitigates those risks substantially. Nonetheless, there is no guarantee that biofuels do not originate from



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deforested areas (for instance biofuels with palm oil mill effluent as feedstock are considered as advanced in the recast renewable energy directive).

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<p>Renewable energy</p> <p>Objectives:</p> <p>— Accelerating the transition towards an economy that fully runs on renewable energies.</p> <p>SDGs: 7.1, 7.2, 9.1, 9.4, 13.1, 13.2</p>	<p>All expenditures enabling construction and operation of electricity generation facilities that produce, transmit or distribute electricity or heat from:</p> <ul style="list-style-type: none"> <li>- Solar PV, concentrated solar power, wind power</li> <li>- Hydropower, including pumped-storage facilities (threshold 1 applies)</li> <li>- Geothermal (threshold 2 applies) when life cycle impacts for producing 1 kWh of electricity are below the declining threshold</li> </ul> <p>All expenditures enabling construction and operation of hydrogen or other bio (threshold 3 applies)/electrofuels.</p> <p>Measures to increase sustainable heating and cooling, heat usage, heat insulation, installation of heat pumps (threshold 4 applies) and waste heat usage (industry and private sectors).</p> <p>All expenditure enabling research for all renewable energies and energy storage (e.g., “green” hydrogen),</p>	<ul style="list-style-type: none"> <li>• National Energy Authority (Orkustofnun)</li> <li>• Grants or loans by the National Energy Agency (Orkusjóður) towards reducing fossil fuels and increased use of domestic renewable energy.</li> <li>• Energy, research and various projects.</li> </ul>	<p><b>Dark Green</b></p> <ul style="list-style-type: none"> <li>✓ Renewable energy is key in a low carbon future.</li> <li>✓ Thresholds chosen for hydropower and geothermal account for life cycle emissions, and geothermal power generation on Iceland is expected to have very low emissions, well below the defined threshold.</li> <li>✓ Iceland’s regulations address potential issues with biodiversity, natural conservation and local communities. Iceland has a master plan for natural protection and energy utilization in order to reconcile competing interests of nature conservation and energy production. Environmental impact assessments have to be carried out and there is a public consultation process. Nevertheless, there may still be local resistance against new renewable power plants, mainly due to their impact on nature.</li> <li>✓ Emissions from the construction phase of new power plants should be minimized, and climate resilience should be addressed. Work is ongoing in Iceland to improve the climate resilience of the electricity transmission network.</li> <li>✓ Hydrogen produced from renewable energy sources is part of the long term low-carbon economy.</li> <li>✓ Biofuels have an important role to play in reducing emissions from the transport sector and biofuels produced on Iceland could be sustainable alternatives with significantly lower life cycle emissions than fossil fuels. The framework’s limitation of eligible</li> </ul>	<ul style="list-style-type: none"> <li>✓ Increased investment in renewable energy can support increased access to affordable renewable energy.</li> <li>✓ The continued transition to renewable energy production may create employment opportunities.</li> <li>✓ In some cases, the construction of electricity generation facilities, especially hydropower plants can have negative social impacts. According to the issuer, Iceland has a specific process to mitigate these risks that involves stakeholder engagement with the public.</li> </ul>
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energy efficiency, power grid and renewable energy integration, energy transition.

#### Thresholds

1. Facility commencing operation before 2020 needs to have a power density higher than 5W/m<sup>2</sup> or GHG emission intensity lower than 100gCO<sub>2</sub>e/kWh. Facilities commencing operation after 2020 need to have a power density higher than 10W/m<sup>2</sup> or GHG emission intensity lower than 50gCO<sub>2</sub>e/kWh.
2. Facilities are operating at life cycle emissions lower than 100gCO<sub>2</sub>e/kWh, declining to net-0gCO<sub>2</sub>e/kWh by 2050.
3. Only rapeseed oil that has a valid certification from any of the voluntary schemes approved by the EU commission for biofuels.<sup>11</sup> Other first generation biofuels are not eligible. Or produced from the advanced feedstock listed in Part A

biofuels to advanced biofuels as defined in article 2 (34) of the recast EU renewable energy directive, as well as to rapeseed from any schemes approved by the EU commission (no such schemes are yet approved) mitigates those risks substantially.

<sup>11</sup> [https://ec.europa.eu/energy/topics/renewable-energy/biofuels/voluntary-schemes\\_en](https://ec.europa.eu/energy/topics/renewable-energy/biofuels/voluntary-schemes_en)



of Annex IX of Directive (EU) 2018/2001.

4. Facilities that produce using electricity from the abovementioned sources or biomass with a declining threshold of 100gCO<sub>2</sub>e/kWh.

<p>Green buildings</p> <p>Objectives:</p> <p>— Improve and promote green buildings and reduce environmental impact.</p>	<p>New construction, acquisition of buildings, leasing, operations, renovation, and refurbishment of existing buildings must be certified threshold 1 applies. The grading must include the following:</p> <ul style="list-style-type: none"> <li>- A screening for climate risk and resilience included in the design.</li> <li>- Electricity and space heating from 100% renewable energy sources.</li> <li>- Solutions for a car-free living and electric charging stations fueled with 100% renewable energy sources.</li> <li>- Material choice based on life cycle considerations.</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of new national hospital on Landspítali site with BREEAM Excellent certification</li> <li>• Construction of fisheries research institute</li> </ul>	<p><b>Medium Green</b></p> <ul style="list-style-type: none"> <li>✓ Iceland has vast access to renewable energy, for both heating and electricity, which means that direct emissions from buildings are low. Only buildings with renewable energy qualify under the framework.</li> <li>✓ Embodied emissions in building materials, as well as construction phase emissions, consequently represent a larger share of buildings' life cycle emissions. Efforts to limit those emissions are essential for reducing the environmental impact of new buildings and refurbishments of existing ones.</li> <li>✓ In addition to the levels of environmental building certifications required under the framework, buildings have to get points in the certification's criteria on climate adaptation, surface water run-off, modes of transportation, life cycle impacts and low carbon design. In sum these contribute to lower carbon impact.</li> <li>✓ While it is a strength to focus on building materials, energy demand should be managed, as even renewable energy has environmental impacts. According to the issuer, buildings financed under the</li> </ul>	<ul style="list-style-type: none"> <li>✓ Large infrastructure projects may create employment opportunities.</li> <li>✓ The framework indicates that investments screens will take into consideration access for those reliant upon public transport or bike/walking.</li> </ul>
<p>SDGs: 11.1, 11.3, 13.1 and 13.2</p> 	<p><b>Threshold</b></p> <p>— LEED "Gold", BREEAM "Excellent" (also BREEAM in-use and BREEAM Refurbishment and Fit Out), Miljöbyggnad "Silver", DGNB "Gold", The Nordic Swan Ecolabel certification", or similar.</p>			



framework also need to meet similar energy use requirements as the BREEAM Excellent certification. Given that there is no clear energy performance requirement in the Icelandic building regulation, how ambitious the energy requirements are compared to regulation is difficult to assess.

- ✓ The issuer expects most financed buildings to have the BREEAM Excellent or Swan Ecolabel certification, as these are currently the most used in Iceland. Meanwhile, for the sake of competition in the market, the issuer has decided to include in the framework several different certifications that have not yet been used in the Icelandic context (DGNB and Miljöbyggnad). The issuer does currently not expect to see any projects using LEED, DGNB or Miljöbyggnad.
- ✓ The BREEAM In-use, Refurbishment and Fit Out (“Excellent”) certifications have been included in order not to exclude any large retrofits of existing governmental buildings. From a climate perspective, retrofits of existing buildings are generally preferable to new construction. However, the energy efficiency needs to improve by 30 % by 2025 compared to current performance to be in line with the Paris agreement. According to the issuer, energy efficiency in the retrofitted buildings is expected to improve in the order of 30 %, but there is no guarantee for that.
- ✓ A steering committee is currently assessing how to handle materials and waste from the existing hospital



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at Landspítali. Special attention is given to handling of waste, looking at potential for re-use and recycling.

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<p>Management of living natural resources and land use</p> <p>Objectives:</p> <p>— Promote sustainable agriculture, biodiversity and preservation of living natural resources.</p>	<p>Expenditure in projects or activities in sustainable forestry (below threshold 1 applies), land conservation and/or restoration, e.g. land remediation, reforestation, and afforestation (threshold 2 applies).</p> <p>Management and maintenance of national parks and conservation areas.</p> <p>Expenditures to support horticulture and agriculture (threshold 3 applies).</p> <p>Investments to promote use of renewable technology in the agriculture sector (e.g. geothermally heated greenhouses).</p>	<ul style="list-style-type: none"> <li>• Research and monitoring of Icelandic nature (Icelandic Institute of Natural History, Icelandic Met Office, research centres)</li> <li>• Nature conservation, forestry and land reclamation, done by the Environment Agency, i.e. Vatnajökull and Thingvellir National Park</li> <li>• Grants to Icelandic Association of Horticulture Producers (vegetable producers), which have entered into an agreement with the government to be</li> </ul>	<p><b>Dark Green</b></p> <ul style="list-style-type: none"> <li>✓ Only 1 % of land is covered by forests on Iceland, with some 36 % being grassland and 9 % wetland. Enhanced action on forestry and revegetation, land conservation, including of wetlands, have an important role to play to increase carbon sequestration and reduce emissions.</li> <li>✓ Reforestation and afforestation may have risks of negatively impacting biodiversity, which should be mitigated.</li> <li>✓ Iceland is home to unique natural assets and 25 % of the country is either national parks or other protected area categories.</li> <li>✓ Nature conservation is dependent on research, monitoring and environmental expertise, and is also important from a climate perspective, especially when contributing to maintenance or increase of carbon stocks.</li> <li>✓ One of the main aims of the agreement between the Icelandic Association of Horticulture Producers (vegetable producers) is to increase knowledge on binding and reducing CO<sub>2</sub> emission amongst farmers, as well as improving resource use and reducing waste. Grants are also given to increase vegetable production. Expenditures need to demonstrate GHG emissions reductions to be eligible. A shift towards a more plant-based diet is important for reducing emissions from agriculture.</li> <li>✓ Among the main sources of greenhouse gas emissions in agriculture are land use change (esp. forests, wetlands)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Significant conservation, forestry, and land reclamation projects may create employment opportunities as well as increase climate resilience during extreme weather events.</li> <li>✓ Sustainable food production can increase nutrition levels throughout the population.</li> </ul>
<p>SDGs: 13.1, 13.2, 15.1 – 15.5, 15.8, 15.9.</p>	<p><b>Threshold</b></p> <ol style="list-style-type: none"> <li>1. A forest that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions.</li> <li>2. The land conversion and/or restoration activity must follow a relevant management system, have an established baseline</li> </ol>			





- GHG balance, and be projected to increase above ground carbon stock over the baseline and enhance biodiversity.
3. Avoided or reduced GHG emissions are demonstrated through appropriate management practices, along with maintaining or increasing the existing carbon stock, and production activity cannot be undertaken on land that had any of the following status in or after January 2018:
- i) Wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year;
  - ii) Continuously forested areas, i.e. with minimal crown cover and the minimal height of forest at maturity of 10% and 2 m accordingly. The minimal area is 0.5 ha and
- carbon neutral by 2040.
- for cultivating new areas, and the use of some types of artificial fertilizer (both from production and use). The criteria listed under 3 mitigate these risks.
- ✓ Livestock is not eligible under the framework, nor fossil fuel machinery nor vehicles.



- minimal width 20 m.
- iii) Land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10% and 30%, or trees able to reach those thresholds in situ;
- iv) Peatland, unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil.

Circular economy and emission reduction	Expenditures to facilitate carbon capture and storage/utilization, and increased air quality. - Construction and operation of capture and storage/utilization of CO <sub>2</sub> to lower global atmospheric CO <sub>2</sub> concentration levels as	<ul style="list-style-type: none"> <li>• Capture of CO<sub>2</sub> from heavy industries and from geothermal plants through the CarbFix method.</li> <li>• Climate fund and actions from the</li> </ul>	<p><b>Medium green</b></p> <ul style="list-style-type: none"> <li>✓ Carbon capture and storage is part of the long term solution and technological development in this area is important to reduce emissions from Iceland's heavy industries.</li> <li>✓ CarbFix is a collaborative research project led by Reykjavik Energy, that aims to develop safe and economically viable methods and technology for permanent CO<sub>2</sub> capture and mineral storage</li> </ul>	<ul style="list-style-type: none"> <li>✓ Recycling and reuse may strengthen local employment opportunities, especially for population groups that already depend on these activities.</li> </ul>
Based on: — Eco-efficient and circular				



<p>economy adapted products</p> <p>— Pollution prevention and control</p> <p>— Waste management</p>	<p>defined in the Government's climate action plan.</p> <p>- Activities supporting increased air quality in line with goals of the Government's air quality action plan.</p>	<p>Climate Action Plan on circular economy</p> <ul style="list-style-type: none"> <li>• Grants to circular economy projects that aim to reduce waste, improve waste sorting and promote recycling.</li> </ul>	<p>underground. The mineralization process takes less than two years, according to results from experimental projects.</p> <p>✓ Waste prevention, improved waste classification and increasing the share of recycling are essential in a low carbon society and part of the long-term solution. Innovation and technological development are crucial in this sector. The eligible grants under the framework promote these objectives. Some ISK 230 million were awarded to projects in 2021.<sup>12</sup></p>
<p>Objectives:</p> <p>— Facilitating the shift from linear economy to circular economy with effective resource utilization.</p>	<p>Expenditures to facilitate increased use of eco-efficient products, waste reduction, and better waste management.</p> <ul style="list-style-type: none"> <li>- Purchases of certified (below threshold no. 3 applies) products, services, or processes.</li> <li>- Collection and transport of non-hazardous waste where: source segregated waste (in single or co-mingled fractions) is separately collected with the aim of preparing for reuse and/or recycling, or anaerobic digestion of bio-waste (threshold no. 1 applies).</li> <li>- Material recovery from separately collected non-hazardous waste (threshold no. 2 applies).</li> <li>- Composting of bio-waste when; bio-waste is source</li> </ul>	<ul style="list-style-type: none"> <li>• Public procurement of certified products in line with the government's sustainable procurement policy.</li> </ul>	<p>✓ The government has recently finalized a sustainable public procurement policy, and all public procurement financed under this framework will be in line with that policy. Such public produrement includes purchases of certified products.</p> <p>✓ Both the Nordic Swan and EU Ecolabel follows strict guidelines to lower environmental impact of products and services through their life-time. The Swan label requires inspection visits, while this is voluntary under the EU Ecolabel. Blauer Engel is the German ecolabel, while Bra Miljöval and Green Seal are developed respectively by a Swedish non-governmental organisation and an international non-profit organisation. While these certifications are expected to have positive environmental impacts, there is limited quantifiable evidence to assess the scale of achieved emission reductions.</p>



<sup>12</sup> [Board of Directors | Allocation of grants to boost the circular economy \(stjornarradid.is\)](https://stjornarradid.is)



segregated and collected separately, anaerobic digestion is not a technically and economically viable alternative, and the compost produced is used as fertilizer/soil improver.

Other expenditures enabling climate change mitigation and transition to circular economy according to the climate action plan and transition to circular economy policy that are not defined elsewhere in the framework.

**Thresholds:**

- In dedicated bio-waste treatment plants, bio-waste shall constitute a major share of the input feedstock (at least 70%, measured in weight, as an annual average). Co-digestion is eligible only with a minor share (up to 30% of the input feedstock) of advanced bioenergy feedstock listed in Annex IX of Directive (EU) 2018/2001.
- It should produce secondary raw materials suitable for substitution of virgin materials in



production processes and, at least 50%, in terms of weight, of the processed separately collected nonhazardous waste is converted into secondary raw materials.

- Nordic Swan Ecolabel, EU Ecolabel, Blauer Engel, Bra Miljöval, Green Seal, or other green procurement purchases as defined by EU's Green Public Procurement (GPP) criteria.

Climate change adaptation

Objectives:  
— Strengthen resilience and adaptive capacity to climate related hazards and natural disasters.

Research and innovation and/or the acquisition of technologies and information systems to support adaptation and early warning systems (monitoring of climate and weather systems and hydrological systems, etc.).  
Funding to enhance climate resilience, e.g. but not limited to:  
- Resilient reconstruction (incorporation of disaster risk reduction and resiliency building to enhance the ability of urban infrastructure to withstand weather related

- National avalanche and landslide fund
- Hafnabótasjóður (The Icelandic Road and Coastal Administration (IRCA))

**Dark green**

- ✓ Research, information systems and measures to increase climate resilience are important given climate change scenarios, including higher frequency of extreme weather conditions and Iceland's exposure to physical climate risks (in particular landslides and floods).
- ✓ According to the issuer, expenditures that prolong the lifetime of fossil fuel based infrastructure (such as roads) and operations are not eligible.

- ✓ Reduction of extreme event risk may improve living conditions for the marginalized (populations living in poor conditions)
- ✓ Efficient adaptation strategies can mitigate health risks such as better water drainage systems reducing risks of water-related diseases during extreme climate events or natural disasters.



- events or other natural disasters.
- Flood mitigation (drainage system upgrades, etc.).

Information and communication

Objectives:  
Promote data-driven solutions for GHG emission reductions and low carbon data storage.

Expenditures enabling storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of diversity of data through data centres (below threshold no. 1 and 2 apply), including edge computing.

Expenditures enabling development and/or use of ICT solutions that are aimed at collecting, transmitting, storing data and at its modelling and use when these activities are exclusively aimed at the provision of data and analytics for decision making (by the public and private sector) enabling GHG emission reductions.



**Threshold**

1. The data centre implements the European Code of Conduct for Data Centre Energy Efficiency.

- Government operated data centres, such as data centres used for Nordic weather observation cooperation.
- Digital Iceland

**Medium to Dark green**

- ✓ Given vast access to renewable energy on Iceland, the country is a suitable location for electricity intensive data centres. Data-centres in Iceland should have lower GHG emissions due to their access to renewable energy.
- ✓ Processing and storing ever-greater amounts of data while limiting energy use and environmental impact is a key challenge for data centres. Energy efficiency needs to be address, along with making the centres resilient to expended changes in climate. A data centre’s power usage efficiency (PUE) is calculated by dividing the total power consumed by the power used solely for computing. The closer that ratio is to 1.0, the more efficient the system. The industry average in 2020 was 1.59, and 1.49 in Europe, which is the lowest in the world<sup>13</sup>.
- ✓ Crypto-currency data mining not included under the framework. Crypto-currency mining is globally a significant emissions concern because the mining process is energy intensive.

- ✓ No foreseeable social considerations or concerns.

<sup>13</sup> [Which regions have the most energy efficient data centers? - Uptime Institute Blog](#)



2. Power Usage Effectiveness  
(PUE) < 1.5 is required.

*Table 1. Eligible green project categories*

The following table provides an assessment of the eligible blue asset categories:

Blue category	Eligible project types	Example expenditures	Green Shading and some considerations	Social considerations and some concerns
<p>Clean vessels</p> <p>Objectives: — Promote energy transition in state-owned vessels, ferries and fisheries vessels.</p> <p>SDGs: 7.2, 9.1 and 13.2</p>	<p>Expenditures related to any vessel using electric, hydrogen (below threshold 1 applies), biogas/landfill gas, or vessel using advanced biofuels (thresholds no. 2 - 5 apply) or renewable liquid and gaseous transport fuels of non-biological origin.</p> <p>Infrastructure: any construction, expansion, equipment, and improvements of infrastructure supporting vessels as defined above.</p> <p><b>Threshold</b></p> <p>1. Electricity use in hydrogen production</p>	<ul style="list-style-type: none"> <li>• Electric ferry at Herjólfur</li> </ul>	<p><b>Medium to Dark Green</b></p> <ul style="list-style-type: none"> <li>✓ Electrification and new types of vessels using hydrogen (from renewable sources) are important low carbon solutions in the maritime sector. However, these technologies are not yet available at scale in the maritime sector. Biofuels, biogas and other types of fuels where the energy content is derived from renewable sources other than biomass (so-called “renewable liquid and gaseous transport fuels of non-biological origin”) have an important role in reducing emissions from this sector.</li> <li>✓ The criteria for the source of biofuels mitigate the risks of biofuel production causing land use change such as deforestation and replacing food production. In addition,</li> </ul>	<ul style="list-style-type: none"> <li>✓ Proposed expenditure looks to improve quality of life for a limited population and may do little to improve lives of marginalized populations.</li> </ul>



must be aligned with the renewable energy criteria and thresholds in this framework.



2. Only rapeseed oil that has a valid certification from any of the voluntary schemes approved by the EU commission for biofuels is eligible. Other eligible feedstock is produced is listed in Part A of Annex IX of Directive (EU) 2018/2001.
3. Methane leakage from relevant facilities (e.g. for biogas production and storage, energy generation, digestate storage) is controlled by a monitoring plan.
4. In dedicated bio-waste treatment plants, bio-waste shall constitute a major share of the input feedstock (at least 70%, measured in weight, as an annual average). Co-digestion is eligible only with a minor share (up to 30% of the input feedstock) of advanced bioenergy feedstock listed in Annex IX of Directive (EU)

Specific measures to address methane emissions from biogas production are required.

- ✓ According to the issuer, eligible vessels need to reduce emissions by more than 80 % compared to fossil fuel alternatives.
- ✓ Eligible ferry has back-up power (for safety considerations) using fossil fuel.
- ✓ Fossil fuel infrastructure is not funded.



2018/2001. The digestate produced is used as fertilizer/soil improver – directly or after composting or any other treatment.

Pollution prevention and control

Objectives:

Decrease local pollution and promote sustainable consumption and production modes.

Expenditures supporting reduction of air emissions and greenhouse gas control including tools for surveillance.

Construction and operation of interconnections that transport electricity between the Iceland’s national grid (hydropower and geothermal power supply) and vessels or onshore processing facilities.

- Electrification of harbours.
- Electrification of fishmeal plants.

**Medium to Dark Green**

- ✓ Emissions from fishing vessels and onshore processing facilities are significant in Icelandic context, and electrification is key to reduce these emissions.
- ✓ Charging infrastructure in harbours would be used by hybrid vessels, running both on electricity and fossil fuel.
- ✓ Although ships using the eligible interconnections are expected to also run on fossil fuel, hybrid vessels are an important bridging technology in this sector.

- ✓ Infrastructure projects such as electricity grid extensions may be a temporary nuisance to surrounding populations.



Expenditures related waste prevention/recycling and to solution to fully utilize all byproducts from the fish processing to produce value-added products for human consumption and/or other



closing the loop on creating zero waste from production.

Management of living natural resources:	Aquatic biodiversity conservation, including the protection of coastal, marine and watershed environments.	<ul style="list-style-type: none"> <li>• Marine Research Institute</li> <li>• Directorate of Fisheries</li> <li>• Salmonid Enhancement Fund</li> <li>• Protection of Breiðafjörður</li> <li>• Environmental Fund for Aquaculture</li> </ul>	<p><b>Dark green</b></p> <ul style="list-style-type: none"> <li>✓ Over 2,500 marine animal species have been found in Iceland’s exclusive economic zone.</li> <li>✓ Nature conservation is dependent on research, monitoring and environmental expertise, and is also important from a climate perspective, especially when contributing to avoiding emissions.</li> <li>✓ Higher ocean acidification expected in Iceland than globally, especially important to monitor aquatic biodiversity in this context.</li> <li>✓ According to the issuer, fossil fuel activities related to conservation will not be finance.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Marine animal conservation efforts, while a common good, may result in increased costs for populations reliant upon the marine industry.</li> </ul>
Objectives: Promote aquatic biodiversity and preservation of living aquatic natural resources.	Equitable bioprospecting of marine species.			
SDGs: 12.2, 14.1 – 14.6	Conservation and restoration of coral reefs, mangroves and seagrasses: avoided emissions and production of blue carbon.			



Sustainable water and wastewater management	Water distribution: Installation or upgrade of water efficient irrigation systems, construction or upgrade of sustainable infrastructure for drinking	<ul style="list-style-type: none"> <li>• Grants for municipal sewers</li> </ul>	<p><b>Medium Green</b></p> <ul style="list-style-type: none"> <li>✓ Fossil fuel operations excluded.</li> <li>✓ Wastewater treatment can also be associated with generation of GHGs, e.g. nitrous oxides and methane, depending on conditions and capture technology.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Efficient water drainage reduces risks of water-related diseases.</li> <li>✓ Infrastructure projects such as upgrading wastewater systems may be a temporary nuisance to surrounding populations.</li> </ul>
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<p>Objectives: Maintain sustainable water supply and improve wastewater management</p>	<p>water (including research or studies).  Wastewater management: Installation or upgrade of wastewater infrastructure including transport, treatment and disposal systems.</p>	<p>✓ Emissions during construction phase should be minimized and climate resilience should be addressed.</p>
<p>SDGs: 6.1, 14.1 and 14.2</p>	<p>Expenditures related to construction or extension of wastewater systems including collection (sewer network) and treatment with no association with fossil fuel operations.</p>	

Table 2. Eligible blue project categories

In the sections below, we provide some background and policy context relevant to the different project categories as well as an indication of the expected share of proceeds of each category within the blue or green category, as summarized in Figure 3 a) and b).

Figure 3 a): Expected shares to green project categories in first green issuance

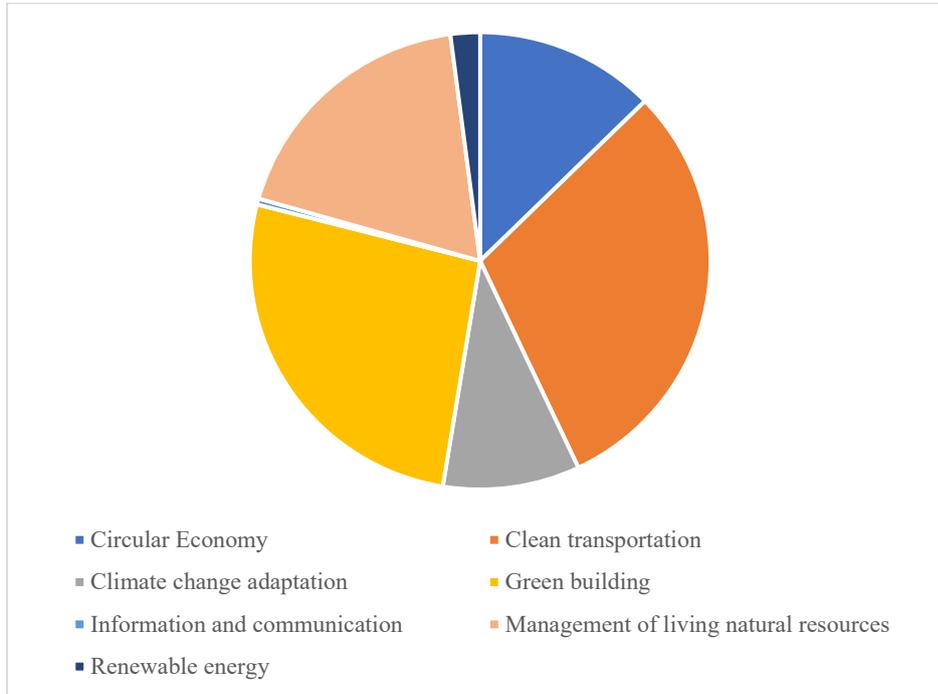
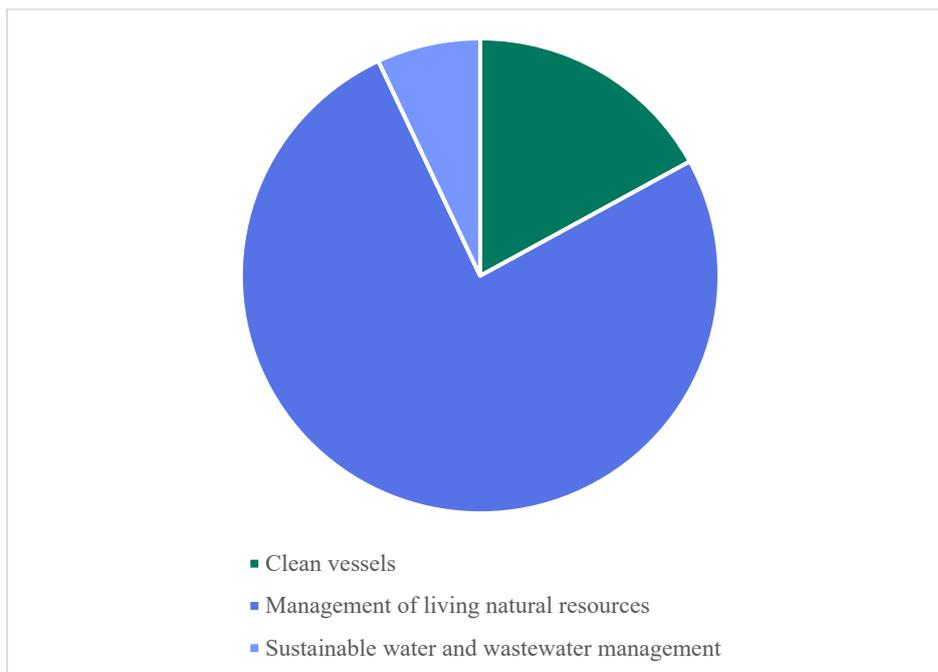


Figure 3 b): Expected shares to blue project categories in first blue issuance





### *Green categories*

#### *Clean transportation (30%, Dark Green)*

Transportation currently accounts for more than 30 % of Iceland's emissions outside the scope of the EU ETS. Transport emissions have increased by 68 % since 1990. The largest increase comes from road transport, which has increased by 83% since 1990, owing to a rising number of cars per capita, population growth, more mileage driven and until 2007 an increase in larger vehicles<sup>14</sup>. A low share of travels is done in public transport, and the tourism industry also makes a significant contribution to transport emissions through car rentals.

According to the International Energy Agency (IEA) technology and policy can steer transport towards increased sustainability. Electrification emerges as the major low-carbon pathway for the transportation sector. Fast tracking electro-mobility on Iceland will require infrastructure investments and strong policy support. Policies and technologies that reduce the need for individual transportation — such as better urban planning or increased use of collective transportation — can make deployment of new technologies more manageable and significantly reduce the required investment.

Since 2012, tax discounts have applied to environment friendly cars. Iceland is currently among the top five countries in terms of share of electric cars as a proportion of all passenger cars on the road, with 5.5 % in December 2020, but far behind Norway with 18.1 %. EV sales have seen a sharp increase in Iceland in recent years, with electric car market share in new car sales rising from 14 % in 2018 to 25 % in 2020. The government has decided to extend the tax discounts (VAT exemptions for electric and plug in hybrid, as well as exemptions from registration tax) until the end of 2023, and to strengthen these incentives by increasing the maximum amount of the discount as well as the number of vehicles. The government has also decided that no new diesel or petrol car can be registered from 2030, with a few exceptions. Other changes in the law that entered into force in 2020 include increasing the number of commercial vehicles that can get the tax discount, removing VAT for public transport vehicles using methane, methanol, electricity or hydrogen, a full refund of VAT for home charging stations, VAT exemption for car rental companies purchasing low emission vehicles, as well as tax discounts for all types of bicycles. These tax discounts, except those for hybrid vehicles, are eligible expenditures under this framework.

Investments in electric buses for the Borgarlina rapid bus system currently under construction in the Reykjavik area, and related infrastructure, are also eligible. The aim of the Borgarlina (city line) is to greatly increase public transport and is part of a 15-year plan agreed between the central government and six municipalities. Borgarlina entails special lanes with priority of public buses over private vehicles and frequent trips.

#### *Green buildings (26 %, Medium to Dark Green)*

The largest budget post currently eligible for proceeds from this framework, in line with the criteria listed in table 2, is the construction of a new national hospital on the Landspítali site.

In the Icelandic context, with access to electricity from renewable sources, emissions from the production and transport of building materials represent the largest share of buildings' carbon footprint in addition to construction emissions. Under this framework, the issuer require eligible buildings to have a medium to high level of environmental building certification, but also to address life cycle emissions of building materials, screening for climate risk and facilitating low carbon transport solutions.

Following up on the Climate Action Plan, a working group with both government and industry representatives, is currently working to establish suggestions for building materials and other relevant requirements for buildings on Iceland. The working group is expected to finalise its work in 2022.

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<sup>14</sup> National Inventory Report for 2019.



### *Management of living natural resources and land use (19 %, Dark Green)*

A total of 15 government expenses have been identified as eligible in this category, covering national parks, governmental agencies and other public bodies, with the Soil Conservation Service of Iceland, the Environment Agency and expenditures for forestry to receive the largest shares of funding in this category. Only 1 % of land is covered by forests on Iceland, with some 36 % being grassland and 9 % wetland. Given the size of the land use, land use change and forestry (LULUCF) sector on Iceland, the 2020 revision of the Climate Action Plan targets an increase in carbon sequestration in this sector, by restoration of woodlands and wetlands, revegetation and afforestation. These projects are among others carried out by the Soil Conservation Service of Iceland, the Environment Agency. The measures in the LULUCF sector in the Climate Action Plan are projected to increase carbon sequestration by some 515 % by 2030 compared to 2005 levels.

### *Renewable energy (less than 2 %, Dark Green)*

Iceland ranks first among OECD countries in the per capita consumption of primary energy. The cool climate and sparse population call for high energy use and transport. While Iceland currently has close to 100 % of its electricity coming from renewable energy, and 90 % of residential heating comes from geothermal sources, the transition to a low carbon future, including the electrification of the transport sector, will require more electricity. All sources of renewable energy are key to a low carbon transition.

Eligible renewable energy sources under the framework are solar PV, wind, hydropower and geothermal. The thresholds set in this framework (GHG emission intensity lower than 100gCO<sub>2</sub>e/kWh for facilities commencing operations before 2020; and lower than 50gCO<sub>2</sub>e/kWh for facilities starting after 2020) are in line with the thresholds of the EU taxonomy.

The National Energy Authority (Orkustofnun) is expected to receive by far the largest allocation of proceeds for renewable energy. The National Energy Authority is a government agency under the Ministry of Industries and Innovation. A licence from the National Energy Authority is required to construct and operate an electric power plant. Meanwhile, the National Energy Agency is also expected to receive some funding, specifically for loans towards reducing fossil fuels and increased use of domestic renewable energy.

### *Circular economy (13 %, Medium Green)*

The circular economy category includes both expenditures for research into carbon capture through the CarbFix method (from heavy industries and from geothermal plants), as well as grants to support circular economy projects and grants by the Icelandic Climate Fund to support innovative projects in the field of climate change and projects related to the promotion and education of the effects of climate change. In June 2019, the government and heads of heavy industry operators in Iceland signed a declaration of intent to explore possibilities for carbon capture and storage of industrial emissions, using the Carbfix method<sup>15</sup>. Currently, the recycling rate in Iceland is on average 30 %, highlighting the need for research and investments in better waste management.

### *Climate change adaptation (10 %, Dark Green)*

A white paper on adaptation has recently been released, and a national climate adaptation plan is expected to be adopted in 2022. The issuer expects that an important budget post in this category is the National Avalanche and Landslide Fund, and specifically expenses for the construction and maintenance of avalanche and landslide barriers, which are important given Iceland's exposure to these risks. Research, loans to municipalities for their part in the funding and buying assets in risk areas (and relocate people to safer locations) can also be funded. The avalanche and landslide fund in some cases purchases assets in risk areas instead of building barriers.

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<sup>15</sup> Declaration: [Government of Iceland | Declaration of Intent of the Government, Heavy Industry and Reykjavik Energy on the Capture and Sequestration of Carbon](#)



### *Information and communication (less than 1 %, Medium Green)*

Two sub-categories are eligible in the project category: data centres and activities exclusively aimed at the provision of data and analytics enabling GHG emission reductions (by the public and private sector). Data centres must fulfill the European Code of Conduct for data centres, which is a voluntary initiative that provides best practices in terms of energy efficiency. The data centers likely to be funded the framework are government operated data centres, such as data centres used for Nordic weather observation cooperation. In addition, Digital Iceland, a government agency, whose task is to expand digital services is listed as eligible for funding.

### *Blue categories*

#### *Management of living natural resources (76 %, Dark Green)*

The budget post Marine and Freshwater Research Institute (MFRI) is by far the largest in this project category. MFRI is a government institute under the auspices of the Ministry of Industries and Innovation. The institute does marine and freshwater research in Icelandic territories and the arctic, providing advice on sustainable use and protection of the environment with an ecosystem approach by monitoring marine and freshwater ecosystems. In addition, the appropriation item will be used to fund expenses by Iceland's Fisheries Directorate and Environment Agency. Expenses for the management and maintenance of National Parks and Conservation Areas are also eligible, in addition to support to NGOs active in this area.

#### *Clean vessels (17 %, Medium to Dark Green)*

Also Iceland's ships and ports need to transition to clean technologies, but it is a greater technological challenge than for road transport. The Climate Action Plan includes measures to reduce the use of fossil fuels in state-owned vessels, require fossil free fuel for ferries that are a regular part of the transport system and tightening fuel requirements in the territorial sea of Iceland. Currently expected expenditures in this category are small (electric ferry at Herjólfur), but this could change in the future.

#### *Sustainable water and wastewater management (7 %, Medium Green)*

The eligible budget post in this category is grants for municipal sewers.

The following table provides an assessment of the eligible social asset categories :



Social category	Eligible project types	Example expenditures	Green considerations	Social considerations, and some concerns
<p>Access to Essential Services – Education</p> <p>Objectives:</p> <ul style="list-style-type: none"> <li>— Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</li> </ul> <p>Target population:</p> <ul style="list-style-type: none"> <li>— Undereducated</li> <li>— People with disabilities</li> <li>— Excluded and/or marginalized populations</li> <li>— Students</li> </ul> 	<p>Expenditures extending the educational capacities, and improving the quality of the existing educational infrastructure, equipment and services. With special focus on improving:</p> <ul style="list-style-type: none"> <li>— Level of literacy</li> <li>— Teacher to student ratio</li> <li>— Number of students in technical and vocational studies</li> <li>— Drop-out rate in upper secondary schools</li> <li>— Education of pupils with other mother tongue than Icelandic</li> </ul> <p>Special projects facilitating increased educational capacity in the event of extreme events (e.g. natural disaster, extreme weather events, public health disasters)</p> <p>Threshold</p> <ul style="list-style-type: none"> <li>- Building projects with a higher cost than 500 m.ISK should receive a relevant environmental certification and a screening for climate risk and resilience should be included in the design.</li> </ul>	<ul style="list-style-type: none"> <li>• The Icelandic Student Loan Fund</li> <li>• EU Framework Programs for Education, Research and Technological Development</li> <li>• Equalization of tuition costs</li> </ul>	<p><b>Light Green</b></p> <ul style="list-style-type: none"> <li>✓ For construction projects larger than 500m ISK, the buildings need to have an environmental certification, but there is no requirement of a specific level, and screening for climate risk and resilience is included in the design.</li> <li>✓ According to the issuer, a vast majority of projects are larger than 500m ISK, as very few public buildings will have a lower cost than that.</li> <li>✓ Environmental certifications, including the BREEAM and Nordic Swan Ecolabel which are the main ones used in Iceland, have environmental benefits. However, without any indication of the level of certification, it is uncertain whether such certification contributes to increased energy efficiency or reduced GHG emissions.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Issuer is committed to ensure the development of the educational system for society.</li> <li>✓ Important indicators like the level of literacy and drop-out rate in upper secondary schools are considered.</li> <li>✓ There is a lack of clarity on the division between administrative costs and funds that will more directly aid students; however the framework indicates that a maximum of 15% of proceeds will be dedicated to administrative costs.</li> <li>✓ It is unclear how the proposed expenditures, primarily targeted for university students and having a marginal focus on elementary students will impact literacy levels or the student to teacher ratio (two of the special focuses).</li> </ul>



			<ul style="list-style-type: none"> <li>✓ The framework requires a screening for exposure to physical climate risk, in accordance with national regulations, and identify mitigating actions in order to align with best practices.</li> </ul>	
<p>Access to Essential Services – Healthcare</p> <p>Objectives:</p> <ul style="list-style-type: none"> <li>— Ensure healthy lives and promote well-being for all at all ages</li> </ul> <p>Target populations:</p> <ul style="list-style-type: none"> <li>— Aging populations and vulnerable youth</li> <li>— Underserved, owing to a lack of quality access to essential goods and services</li> <li>— People with disabilities. Excluded and/or marginalised populations, and communities.</li> </ul> 	<p>Expenditures extending the healthcare capacities, and improving the quality of the existing healthcare facilities, infrastructure and services: With special focus on improving:</p> <ul style="list-style-type: none"> <li>— Children, elderly and disability care</li> <li>— Supply of and access to resources and services by region</li> <li>— Treatment of chronic lifestyle diseases</li> <li>— Supply of new drugs</li> <li>— Recruitment of healthcare personnel</li> </ul> <p>Special projects facilitating increased healthcare capacity in the event of extreme events (e.g. natural disaster, extreme weather events, public health disasters)</p> <p>Threshold</p> <ul style="list-style-type: none"> <li>- Building projects with a higher cost than 500 m.ISK should receive a relevant environmental certification and a screening for climate risk and resilience should be included in the design.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Contracts for rehabilitation services</li> <li>✓ Construction of nursing homes and rehabilitation institutions</li> </ul>	<p><b>Light Green</b></p> <ul style="list-style-type: none"> <li>✓ For construction projects larger than 500m ISK, the buildings need to have an environmental certification, but there is no requirement of a specific level, and screening for climate risk and resilience should be included in the design.</li> <li>✓ According to the issuer, a vast majority of projects are larger than 500m ISK, as very few public buildings will have a lower cost than that.</li> <li>✓ Environmental certifications, including the BREEAM and Nordic Swan Ecolabel which are the main ones used in Iceland, have environmental benefits. However, without any</li> </ul>	<ul style="list-style-type: none"> <li>✓ Issuer indicated that contracts for rehabilitation services extends these services to rural and underserved communities.</li> <li>✓ Issuer also indicated that there is prioritization built into Iceland’s health care system both in general laws and specific laws and regulations. That services such as care homes, health care services, and use of medicine are based on the need of the patient, so that resources go to those most in need and takes into account the needs of vulnerable populations.</li> </ul>



			<p>indication of the level of certification, it is uncertain whether such certification contributes to increased energy efficiency or reduced GHG emissions.</p> <p>✓ The framework requires a screening for exposure to physical climate risk, in accordance with national regulations, and identify mitigating actions in order to align with best practices.</p>	
<p>Access to Essential Services – Social Inclusion</p> <p>Objectives: - Provide access to essential services for population groups at risk of social exclusion.</p> <p>Target populations:</p> <ul style="list-style-type: none"> <li>— People with disabilities</li> <li>— Underserved, owing to a lack of quality access to essential goods and services</li> <li>— Excluded and/or marginalised populations, and communities</li> <li>— Migrants and/or displaced persons</li> <li>— Aging populations and vulnerable youth</li> <li>— Women and/or sexual and gender minorities</li> </ul>	<p>Expenditures extending social inclusion, and improving the quality of the existing welfare facilities, infrastructure and services: With special focus on improving:</p> <ul style="list-style-type: none"> <li>— The position of people regardless of origin, nationality, religion or non-religious convictions, disability, restricted work capacity, age, sexual orientation or gender identity</li> <li>— Opportunities and conditions for immigrants to become active participants in Icelandic society</li> <li>— The proportion of fathers taking paternity leave</li> </ul> <p>Humanitarian aid with special emphasis on sustainable development, renewable energy, health, education, equality and</p>	<ul style="list-style-type: none"> <li>✓ Parental Leave Fund</li> <li>✓ Income insurance for invalidity pensioners</li> </ul>	<p><b>Light Green</b></p> <ul style="list-style-type: none"> <li>✓ Several expenses without any clear environmental risks nor benefits (i.e. parental leave fund).</li> <li>✓ Humanitarian aid focused on sustainable development and renewable energy entail likely both environmental risks and benefits.</li> <li>✓ For construction projects larger than 500m ISK, the buildings need to have an environmental certification, but there is no requirement of a specific level, and screening for</li> </ul>	<ul style="list-style-type: none"> <li>✓ The ‘vulnerable populations’ mentioned in the framework are not well defined and how the proposed projects target specific populations is also missing.</li> <li>✓ Issuer disclosed that humanitarian aid projects will take place in other countries which makes it unclear if target populations listed are residents of Iceland or other nationals.</li> </ul>



	<p>human rights. Special emphasis on transferring Icelandic knowledge to developing countries.</p> <p>Special projects facilitating increased welfare capacity in the event of extreme events (e.g. natural disaster, extreme weather events, public health disasters)</p> <p>Threshold</p> <ul style="list-style-type: none"> <li>- Building projects with a higher cost than 500 m.ISK should receive a relevant environmental certification and a screening for climate risk and resilience should be included in the design.</li> </ul>		<p>climate risk and resilience should be included in the design.</p> <p>✓ According to the issuer, a vast majority of projects are larger than 500m ISK, as very few public buildings will have a lower cost than that.</p> <p>✓ Environmental certifications, including the BREEAM and Nordic Swan Ecolabel which are the main ones used in Iceland, have environmental benefits. However, without any indication of the level of certification, it is uncertain whether such certification contributes to increased energy efficiency or reduced GHG emissions.</p> <p>✓ The framework requires a screening for exposure to physical climate risk, in accordance with national regulations, and identify mitigating actions in order to align with best practices.</p>	
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<p><b>Affordable Housing and Infrastructure</b></p> <p>Objectives: - Provide access to affordable housing and infrastructure to vulnerable population.</p> <p>Target populations:</p> <ul style="list-style-type: none"> <li>— Living below the poverty line</li> <li>— Aging populations and vulnerable youth</li> <li>— Migrants and/or displaced persons</li> <li>— Underserved, owing to a lack of quality access to essential goods and services</li> </ul> 	<p>Expenditures extending the affordable housing and infrastructure capacities, and improving the quality of the existing affordable facilities and infrastructure: With special focus on improving:</p> <ul style="list-style-type: none"> <li>— The supply of housing suitable for people with low income and assets, elderly and the disabled</li> <li>— The situation of disadvantaged people, with particular emphasis on children</li> <li>— The refugee housing issues</li> <li>— Challenges for rural areas, such as communications and public transport</li> </ul> <p>Threshold</p> <ul style="list-style-type: none"> <li>- Building projects with a higher cost than 500 m.ISK should receive a relevant environmental certification and a screening for climate risk and resilience should be included in the design.</li> </ul>	<p>✓ Contributions to social rental housing</p>	<p><b>Light Green</b></p> <ul style="list-style-type: none"> <li>✓ For construction projects larger than 500m ISK, the buildings need to have an environmental certification, but there is no requirement of a specific level, and screening for climate risk and resilience should be included in the design.</li> <li>✓ According to the issuer, a vast majority of projects are larger than 500m ISK, as very few public buildings will have a lower cost than that.</li> <li>✓ Environmental certifications, including the BREEAM and Nordic Swan Ecolabel which are the main ones used in Iceland, have environmental benefits. However, without any indication of the level of certification, it is uncertain whether such certification contributes to increased energy efficiency or reduced GHG emissions.</li> <li>✓ The framework requires a</li> </ul>	<ul style="list-style-type: none"> <li>✓ Achieving affordable access to housing provides opportunity to achieve health, education and social equality objectives, as well as access to basic services.</li> <li>✓ Calculations of affordability and how that calculation impacts who can avail themselves to issuer support is enshrined in legislation.</li> </ul>
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			screening for exposure to physical climate risk, in accordance with national regulations, and identify mitigating actions in order to align with best practices.	
<p>Employment generation and socioeconomic advancement and empowerment</p> <p>Objectives: - Support employment generation and socioeconomic advancement and empowerment.</p> <p>Target populations: — Undereducated — Unemployed — Excluded and/or marginalised populations and/or communities — People with disabilities</p>	<p>Expenditures extending the capacity of employment generation and retention initiatives: With special focus on improving:</p> <ul style="list-style-type: none"> <li>— Long-term unemployment.</li> <li>— Support options for people with limited work capacity</li> <li>— Productivity with a skilled workforce</li> </ul> <p>Special projects facilitating increased employment generation and retention initiatives capacity in the event of extreme events (e.g. natural disaster, extreme weather events, public health disasters)</p>	<ul style="list-style-type: none"> <li>✓ Unemployment benefits against reduced employment rates</li> <li>✓ Income subsidies / Resistance subsidies</li> <li>✓ Salary costs for workers during their notice period</li> </ul>	<p><b>No major environmental risks, but no obvious environmental benefits.</b></p>	<ul style="list-style-type: none"> <li>✓ Majority of proposed expenditures are focused on maintaining welfare levels of unemployed individuals and not generating new employment opportunities.</li> <li>✓ Focus of Iceland's VNR was to increase productivity, however this goal is ignored in these proposed expenditures.</li> </ul>

*Table 3. Eligible social project categories*

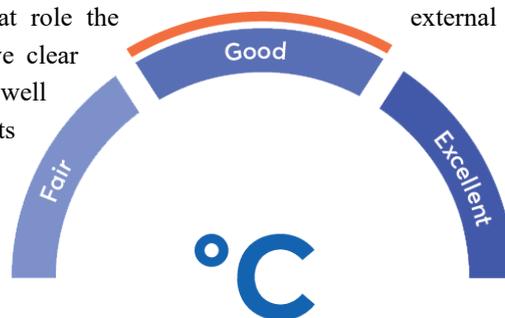
### Governance Assessment

Four aspects are studied when assessing the Government of Iceland's governance procedures: 1) the policies and goals of relevance to the sustainable financing framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

Iceland's environmental target, including its climate targets, are among the most ambitious in the world. Progress towards those targets will be covered by extensive reporting to the EU, which will show the impact of the implementation of the policies and measures from the Climate Action Plan. The country has a very good social performance. Through this framework, the government, among others, aims to address the findings of the Voluntary National Review (VNR)<sup>16</sup> of its implementation of the 2030 Agenda for Sustainable Development.

<sup>16</sup> [https://sustainabledevelopment.un.org/content/documents/23408VNR\\_Iceland\\_2019\\_web\\_final.pdf](https://sustainabledevelopment.un.org/content/documents/23408VNR_Iceland_2019_web_final.pdf)

The selection process of eligible funding under the sustainable financing framework is clearly defined, with individual Ministries being able to submit projects to the inter/ministerial sustainability committee, which takes the final decisions. The Ministry of Finance, which is heading the committee, has a central role in coordinating the work among ministries. Environmental expertise is represented through the Ministry of Environment and Natural Resources and consultation of subject matter experts. Less clear in the exchanges with the issuer are the level of technical competencies of those making the decisions and what role the external expertise will play. Most green and blue project categories have clear selection criteria for eligible project categories. However, it is less well defined how the committee will assess the extent to which projects contribute to the government's sustainability objectives and how environmental and social risks and benefits are weighed against each other. There does not appear to be a systematic assessment of physical climate risk across project categories.



Proceeds and expenditures are clearly tracked in a dedicated registry managed by the Ministry of Finance, while reporting on use of proceeds and impacts is extensive. Allocation of proceeds will be subject to verification from Iceland's national auditor, while a third party may be engaged for impact calculations. Chosen indicators are relevant and aligned with ICMA guidance on impact reporting. For calculations of impacts on emissions, the issuer has indicated that availability of data might be a challenge, especially for the first reporting cycle. The overall assessment of Iceland's governance structure and processes gives it a rating of **Good**.

### Strengths

The framework has a broad scope, reflecting Iceland's commitment to the Paris Agreement on climate change and the United Nations' Sustainable Development Goals, as well as a systematic approach to contributing to reaching those targets. The green and blue project categories are aligned with Iceland's Climate Action Plan, and significant shares of funding are expected to go to the two sectors particularly emphasized in that plan, i.e. clean transportation and the "land use, land use change and forestry"-sector (LULUCF), which are crucial for Iceland to reach its emission reduction target in the sectors outside the scope of the EU ETS. Proceeds from the sustainability instruments issued under the framework will also finance green buildings, adaptation projects, research in carbon capture and storage, as well as better waste management and circularity, all of which are important in a 2050-perspective. Additionally, the framework has a strong focus on nature and biodiversity conservation.

From a climate perspective the transport sector is a major challenge in Iceland - as in most other countries - and the criteria for eligible expenditures under this framework are aligned with a low carbon transport sector, which includes vehicles running on electricity, hydrogen, biogas, biofuels with safeguards for sustainable sourcing and other fuels based on renewable sources. Currently, the largest expected expenditures are related to electric modes of transportation. Charging infrastructure, which is crucial for the transition to electric modes of transportation, is also eligible. Iceland's access to renewable energy for both electricity and heating places it in a good position for hosting data centres, and electrifying its transport and maritime sector.

The criteria for the green building project category address both transport solutions, materials and climate risk. Given Iceland's vast access to renewable energy, emissions embodied in building materials represent a large share of buildings' carbon footprint and it is clear strength that the requirements focus on these. The largest project expected to be financed in this category is a new national hospital, which is a significant investment and a building with an expected long lifetime.

The expenditures in the categories management of natural living resources both on land in water, should contribute both to limit emissions from land use change and forestry (through reforestation, sustainable forestry, conservation



and restoration of both land and coral reefs, mangroves and seagrasses), but also to preserving biodiversity. Fossil fuel power vehicles used in national parks are not eligible under the framework.

The social objectives outlined in the framework supports Iceland's strong reputation of the government concerning itself with the social welfare of its citizens. The framework leverages the issuer's competencies to deliver on policies that improve the lives of residents of Iceland. Moreover, the issuer has aligned the social objectives to meet some of the challenges still facing residents of Iceland that were highlighted in Iceland's Voluntary National Review of the implementation of the 2030 Agenda for Sustainable Development.

While some social objectives addressed in the framework are supported by specific government policies, for example Educational Policy for 2030, the eligible project types and tentative expenditures provided by the issuer go beyond these policies. This indicates that the issuer views the use of proceeds for social objectives as a means to pursue increased ambitions.

Given the universality of education and healthcare provision, the majority of proposed social expenditures have a broad audience and are unlikely to face the same impediments to access to these services that can be present in other countries.

The framework intends transparent reporting by including a list of projects and environmental and social impacts. The issuer will use external auditors to review the annual use of proceeds and impact reporting, with the methodologies used for reporting being made publicly available.

### Weaknesses

For the social project categories, in some cases, the target populations put forth by the framework are generic. For example, expenditures in education are listed as targeted toward undereducated population without indicating a threshold by which a person would be considered undereducated. Similarly, health expenditures targeted toward aging population and youth would have been more understandable if the issuer disclosed the ages of the population considered to be aging and the ages of the population considered to be youth.

### Pitfalls

The broad scope of the framework and numerous project categories, categories and thresholds, create some uncertainty when it comes to the specific future projects that can be found eligible under the framework, although the overall objectives in the framework are good and most of the criteria for the green and blue project categories are clear. The sustainability committee's assessment of expenses against the criteria and objectives of the framework will be decisive, including its competencies in the various sectors that are covered by the framework. The access to the relevant expertise, both environmental and social, will be important in choosing expenses that contribute to the objectives of the framework.

We note the inclusion of some administrative costs (up to 15 %), support to NGOs and grants in the eligible cost categories under this framework. We encourage the issuer to be transparent in reporting the share between expenditures that cover the government's administration costs (including salary to government officials) versus allocations to blue, green and social projects. A significant share of costs are transfers to government agencies, such as the Environment Agency and the National Energy Authority, which have a crucial role in the implementation of policies. Meanwhile, the impact of these expenditures on greenhouse gas emissions or nature conservation may be difficult to assess.



On the whole, the issuer's considerations of green and blue risks when making social investments, and of social risks when making green and blue investments, could be stronger. For instance, the climate requirements for buildings in the social categories could be more ambitious. For the social categories, the requirement of an environmental certifications without a specified level potentially means that buildings that are not very energy efficiency or with high embodied emissions could be financed. The screening for climate risk and identification of mitigating actions addresses the main environmental risks associated with the buildings. However, the current integration of physical climate risk in public planning does not appear to be very robust, although national regulations aim for climate resiliency. For example, the extent to which municipalities' masterplans integrate the increased risk of i.e. floods and sea level rise varies.

As Iceland's welfare state is already well-developed, it is understandable that the issuer faces difficulty in setting ambitious social targets. Nevertheless, many of the proposed expenditures listed by the issuer support existing programs making it difficult to ascertain whether the proceeds will enhance the services provided to residents of Iceland or simply maintain current levels.

For the social project categories, many of the impact indicators outlined by the issuer only capture Iceland's current level of progress toward specific metrics. This type of reporting will undermine the ability of users to understand how specific bond proceeds contributed to the metrics. For example, if there is an increase in the proportion of Icelandic 2nd graders who achieve minimum proficiency in mathematics from 75% to 80%, framework and impact report users will not know how much of this increase is attributable to investments of bond proceeds and how much of this increase is attributable to regular government budgetary spending.

Finally, we encourage Iceland to build on its existing reporting systems for the impact reporting under this framework, as performance indicators have been set for the actions covered by the revised Climate Action Plan.



# Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	Iceland's Sovereign Sustainable Financing Framework, dated September 2021.	Draft from the government's working group for sustainable financing describing the Government of Iceland's sustainable financing framework.
2	Update of the Nationally Determined Contribution of Iceland, February 2021.	Update of the Nationally Determined Contribution of Iceland under the Paris Agreement, submitted to the UNFCCC, first submitted in 2015.
3	Iceland's 2020 Climate Action Plan.	Update of the Climate Action Plan from 2018, addressing how Iceland will meet its 2030 and 2040 climate targets.
4	National Inventory Report, Emissions of greenhouse gases in Iceland from 1990 to 2019.	Yearly submission under the United Nations Framework on Climate Change and the Kyoto Protocol.
5	A Sustainable Energy Future, An Energy Policy to the year 2050.	Outline of Iceland's vision for its energy policy in 2050, adopted by the Government of Iceland in September 2020.
6	Iceland National Plan, November 2020.	Description of how Iceland will meet its 2030 climate target, document issued in accordance with Declaration related to Decision No 269/2019 of 25 October 2019 of the EEA Joint committee.
7	Iceland's Implementation of the 2030 Sustainable Development Voluntary National Review	A mapping of Iceland's position for all UN SDG 169 targets and specified 65 priority targets that will guide Iceland's authorities in implementing the goals.
8	Iceland Education Policy 2030 and its implementation	OECD recommendations on how to transition Education Policy 2030 from a strategy document to an long-term actionable implementation strategy.



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9 Health policy: A policy for Iceland's health services  
until 2030 Vision and policy documents outlining  
government's intentions to strengthen Iceland's  
health system.

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10 Sustaining Iceland's fisheries through tradeable  
quotas, Country study, OECD Environment Policy  
Paper fisheries industry.

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# Appendix 2: About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD).





## Appendix 3: About IISD

The International Institute for Sustainable Development (IISD) is an independent policy research organization working to deliver the knowledge to act. From offices in Winnipeg, Geneva, Ottawa, Toronto and New York, IISD's work impacts lives in nearly 100 countries.

IISD provides practical solutions to the growing challenges and opportunities of integrating environmental and social priorities with economic development. IISD reports on international negotiations and shares knowledge gained through collaborative projects, resulting in more rigorous research, stronger global networks, and better engagement among researchers, citizens, businesses and policy-makers.

The Public Procurement and Infrastructure Finance Sub-Program at IISD provides advisory services to public and private sector clients for the design and implementation of policies, programs and tools to prepare, finance and de-risk sustainable and low-carbon infrastructure.

IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the International Development Research Centre (IDRC) and from the Province of Manitoba. IISD receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations, the private sector and individuals.

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