

## Green Finance Report 2022

### Summary

- › Landsvirkjun has established a Green Finance Framework in line with the company's focus on sustainability and climate action
- › Landsvirkjun's Green Finance Framework is based on the ICMA Green Bond Principles and the LMA Green Loan Principles. A second party opinion on the Green Finance Framework has been provided from Sustainalytics stating that the Green Finance Framework is robust, transparent and in alignment with the four components of the ICMA Green Bond Principles and LMA Green Loan Principles
- › Total Green funding amounts to USD 285 m with five outstanding issuances. The Green Bonds are all issued in the US Private Placement market
- › All new funding has been green finance or sustainability linked since 2018. Outstanding green bonds currently account for about 29% of Landsvirkjun's total loans
- › Impact indicators show that the avoided GHG emission in 2021 was 2,664,328 tCO<sub>2</sub>eq or 0.825 kgCO<sub>2</sub>eq/USD

### Green Finance Allocation Reporting

As of year end 2022 the Eligible Green Assets amounted to USD 3,231 m. Outstanding Green Finance Instruments amounted to USD 285 m. All proceeds from the Green Finance Instruments have been allocated to the Eligible Green Assets.

Eligible Green Assets		Green Funding			
	Amount (mUSD)	Instrument	Issuance Date	Due Date	Amount (USDm)
Renewable Energy	3.231	Green bonds	Mar 2018	Mar 2023	85
		Green bonds	Mar 2018	Mar 2025	30
		Green bonds	Mar 2018	Mar 2028	20
		Green bonds	Nov 2020	Nov 2029	50
		Green bonds	Feb 2021	Feb 2030	100
<b>Total Eligible Green Assets</b>	<b>3.231</b>	<b>Total Green Funding</b>			<b>285</b>

Percentage of Eligible Green Assets allocated to net proceeds of Green Funding: **9%**

Percentage of net proceeds of Green Finance instruments allocated to Eligible Green Assets: **100%**

Deloitte, the external auditors of Landsvirkjun, have issued an assurance report on the Green Finance Allocation Report and confirmed that the preparation of the Eligible Green Assets is in accordance with the Eligibility Criteria as described in the Framework.

The Green Finance Allocation Report and the Assurance Report are included in the appendix.

### Green Finance Impact Reporting

Landsvirkjun's Green Finance climate impact is expressed as avoided greenhouse gas emissions.

The avoided greenhouse gas emissions by using green and renewable energy amounted to 2.7 million tonnes CO<sub>2</sub> equivalents on balance sheet basis.

#### ↓ Landsvirkjun's climate impact on balance sheet and pro-rata basis

	Eligible Green Assets (USDm)	Generation capacity (MW)	Generation output in 2022 (GWh)	Avoided GHG emissions in 2022 (tCO <sub>2</sub> eq)
Balance sheet basis	3,231	2,146	14,629	2,664,328
Pro-rata basis	285	189	1,290	235,015

The climate impact is shown both on balance sheet basis and pro-rata basis which is proportional to the amount of outstanding Green Finance Instruments to Eligible Green Assets on the company's balance sheet. The avoided greenhouse gas emissions of Eligible Green Assets on balance sheet basis amounted to 2,664,328 tCO<sub>2</sub>eq or 0.825 kgCO<sub>2</sub>eq/USD in 2022., on balance sheet basis.

The Green Finance Impact Report discloses the climate impact of Landsvirkjun's renewable energy assets for the year 2022 in line with the company's [Green Finance Framework](#) and describes the methodology used. The report is included in the appendix.

## Appendix - Annual Green Finance Impact Report

The Green Finance Impact Report discloses the climate impact of Landsvirkjun's renewable energy assets for the year 2022 in line with the company's [Green Finance Framework](#).

The climate impact is expressed as avoided greenhouse gas emissions.

### Avoided Greenhouse Gas Emissions

Landsvirkjun's Green Asset's climate impact is shown in the table below. The climate impact is shown both on balance sheet basis and pro-rata basis which is proportional to the amount of outstanding Green Finance Instruments to Eligible Green Assets on the company's balance sheet. At the year end 2022, Landsvirkjun's Eligible Green Assets amounted to USD 3,231 m and Green Finance Instruments amounted to USD 285 m.

↓ **Table 1: Landsvirkjun's climate impact on balance sheet and pro-rata basis**

	Eligible Green Assets (USD m)	Generation capacity (MW) <sup>1</sup>	Generation output in 2022 (GWh) <sup>1</sup>	Avoided GHG emissions in 2022 (tCO <sub>2</sub> eq)
Balance sheet basis	3,231	2,146	14,629	2,664,328
Pro-rata basis	285	189	1,290	235,015

The avoided greenhouse gas emissions of Eligible Green Assets on balance sheet basis amounted to 2,664,328 tCO<sub>2</sub>eq or 0.825 kgCO<sub>2</sub>eq/USD in 2022.

### Climate Impact Calculation Methodology

The methodology used for impact calculations is based on relevant international standards and guidelines.<sup>2</sup>

The customers to which Landsvirkjun supplies electricity have been separated into two groups, industry operating within the European Union (EU) Emissions Trading System (ETS) and other industries and households in Iceland. The groups have a different role in contributing to the emission reduction target outlined in the EU 2030 climate and energy framework.

The benchmark emission factors for each group were calculated using the International Financial Institution's (IFI) methodology (combined margin method) and the Harmonized IFI Default Grid Factors Dataset (V3.2).<sup>3</sup> The emission factor for each group is multiplied by the group's share in the total supplied electricity by Landsvirkjun as disclosed in the company's Annual Report 2022 (see Table 2). The combined emission factor is 185 gCO<sub>2</sub>eq/kWh.

Landsvirkjun's direct (scope 1) emissions are deducted from the benchmark factor to calculate the avoided impact. According to [Landsvirkjun's 2022 Climate Accounts](#), the direct (scope 1) emissions amounted to 42,122 tCO<sub>2</sub>eq or 2.9 gCO<sub>2</sub>eq/kWh. Scope 1 emissions are direct emissions from geothermal operations and hydropower reservoirs, fossil fuel use and SF6 leakage from the company's electric equipment. Landsvirkjun's climate account is based on the methodology of the Greenhouse Gas Protocol (GHGP), and has been inspected and verified by Bureau Veritas using the international standard ISO-14064-3, with limited assurance.

↓ **Table 2: Supplied electricity and benchmark emission factors for Landsvirkjun's customer groups.**

Customer group	Amount of supplied electricity (GWh)	Share of total supplied electricity (%)	Benchmark emission factor (gCO <sub>2</sub> eq/kWh)
Industry within EU's ETS	12,647	86.5%	214
Other industries and households	1,982	13.5%	0

1 Landsvirkjun's Consolidated Financial Statements 2022.

2 International Capital Market Association's and Green Bond Principle's Handbook on Harmonized Frameworks for Impact Reporting (December 2020).

3 Harmonized IFI Default Grid Factors, International Financial Institutions V3.2

## Appendix - Green Finance Allocation Reporting

As of 31st December 2022

Eligible Green Assets		Green Funding			
	Amount (mUSD)	Instrument	Issuance Date	Due Date	Amount (mUSD)
Renewable Energy	3.231	Green bonds	Mar 2018	Mar 2023	85
		Green bonds	Mar 2018	Mar 2025	30
		Green bonds	Mar 2018	Mar 2028	20
		Green bonds	Nov 2020	Nov 2029	50
		Green bonds	Feb 2021	Feb 2030	100
<b>Total Eligible Green Assets</b>	<b>3.231</b>	<b>Total Green Funding</b>			<b>285</b>

Percentage of Eligible Green Assets allocated to net proceeds of Green Funding: **9%**

Percentage of net proceeds of Green Finance instruments allocated to Eligible Green Assets: **100%**

- › The amounts for Renewable Energy are reviewed in accordance with Landsvirkjun's Green Finance Framework issued in September 2020
- › Deloitte's Independent Auditor's Assurance Report in relation to the Eligible Green Assets and respective disclosed amounts is included
- › The Green Bonds are all issued in the US Private Placement market

## INDEPENDENT AUDITOR'S ASSURANCE REPORT

To the Board of Directors of Landsvirkjun and SEB as Agent in the US\$150,000,000 Multi-Currency Revolving Credit Agreement dated July 11<sup>th</sup> 2019 where Landsvirkjun is the Borrower.

### Assurance scope

The scope of our work was limited to assurance over the Sustainability Compliance Certificate (here after referred to as the Certificate) dated February xx<sup>th</sup> 2023. The reporting criteria against which this information was assessed are relevant parts of the US\$150,000,000 Multi-Currency Revolving Credit Agreement dated July 11<sup>th</sup>, 2019.

### Responsibilities of Landsvirkjun

The CEO and CFO are responsible for putting forth the Certificate and that it is free of material misstatements, whether due to fraud or in error, in accordance with the Multi-Currency Revolving Credit Agreement.

### Responsibility of the auditor

Our responsibility is to express an assurance conclusion on the Certificate specified above, with the exception of 1 (b) that is confirmed by Bureau Veritas, based on the procedures we have performed and the evidence we have obtained.

We conducted our assurance engagement in accordance with ISAE 3000 Assurance Engagement Other than Audits of Reviews of Historical Financial Information issued by IASB.

### Our independence and quality control

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

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

### Work performed

- We confirmed that the ISO 14001 and ISO 45001 are maintained.
- We confirmed that the PWC "Equal Pay Gold Standard" certification is maintained.
- We confirmed the data used for the H-200 to the HR system at Landsvirkjun and recalculated the ratio with no issues noted.
- We confirmed the data used for the number of female managers as a percentage to the total number of managers to the HR system at Landsvirkjun and recalculated the ratio with no issues noted.

**Conclusion**

Based on the assurance procedures we have performed and the evidence we have obtained, in our opinion, items 1 (a), (b), (c), (d), (e) and (f) of the Certificate, has been put forth in accordance with the reporting criteria.

Reykjavík, March 1<sup>st</sup> 2023.

**Deloitte ehf.**



Pétur Hansson

State Authorized Public Accountant