Annual Green Finance Impact Report

The Green Finance Impact Report discloses the climate impact of Landsvirkjun's renewable energy assets for the year 2023 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 2023, Landsvirkjun's Eligible Green Assets amounted to USD 3,122 m and Green Finance Instruments amounted to USD 200 m.

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

	Eligible Green Assets (USD m)	Generation capacity (MW)[1]	Generation output in 2023 (GWh)[1]	Avoided GHG emissions in 2023 (tCO_2eq)
Balance sheet basis	3,122	2,146	14,686	2,641,874
Pro-rata basis	200	137	941	169,242

The avoided greenhouse gas emissions of Eligible Green Assets on balance sheet basis amounted to 2,641,874 tCO_2-eq or 0.846 $kgCO_2$-eq/USD in 2023.

Climate Impact Calculation Methodology

The methodology used for impact calculations is based on relevant international standards and guidelines.[2]

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).[3] 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 2023 (see Table 2). The combined emission factor is 182.9 gCO_2-eq/kWh.

Landsvirkjun's direct (scope 1) emissions are deducted from the benchmark factor to calculate the avoided impact. According to Landsvirkjun's 2023 Climate Accounts, the direct (scope 1) emissions amounted to 44,348 tCO_2-eq or 3.0 gCO_2-eq/kWh. Scope 1 emissions are direct emissions from geothermal operations and hydropower reservoirs, fossil fuel use and SF_6 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 bencmark emission factors for Landsvirkjun's customer groups.

Customer group	Amount of supplied electricity (GWh)	Share of total supplied electricity (%)	Benchmark emission factor (gCO_2eq/kWh)
Industry within EU's ETS	12,552	85.5%	214
Other industries and households	2,133	14.5%	0

1 Landsvirkjun's Consolidated Financial Statements 2023.
2 International Capital Market Assoiciation'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 (April 2022).