

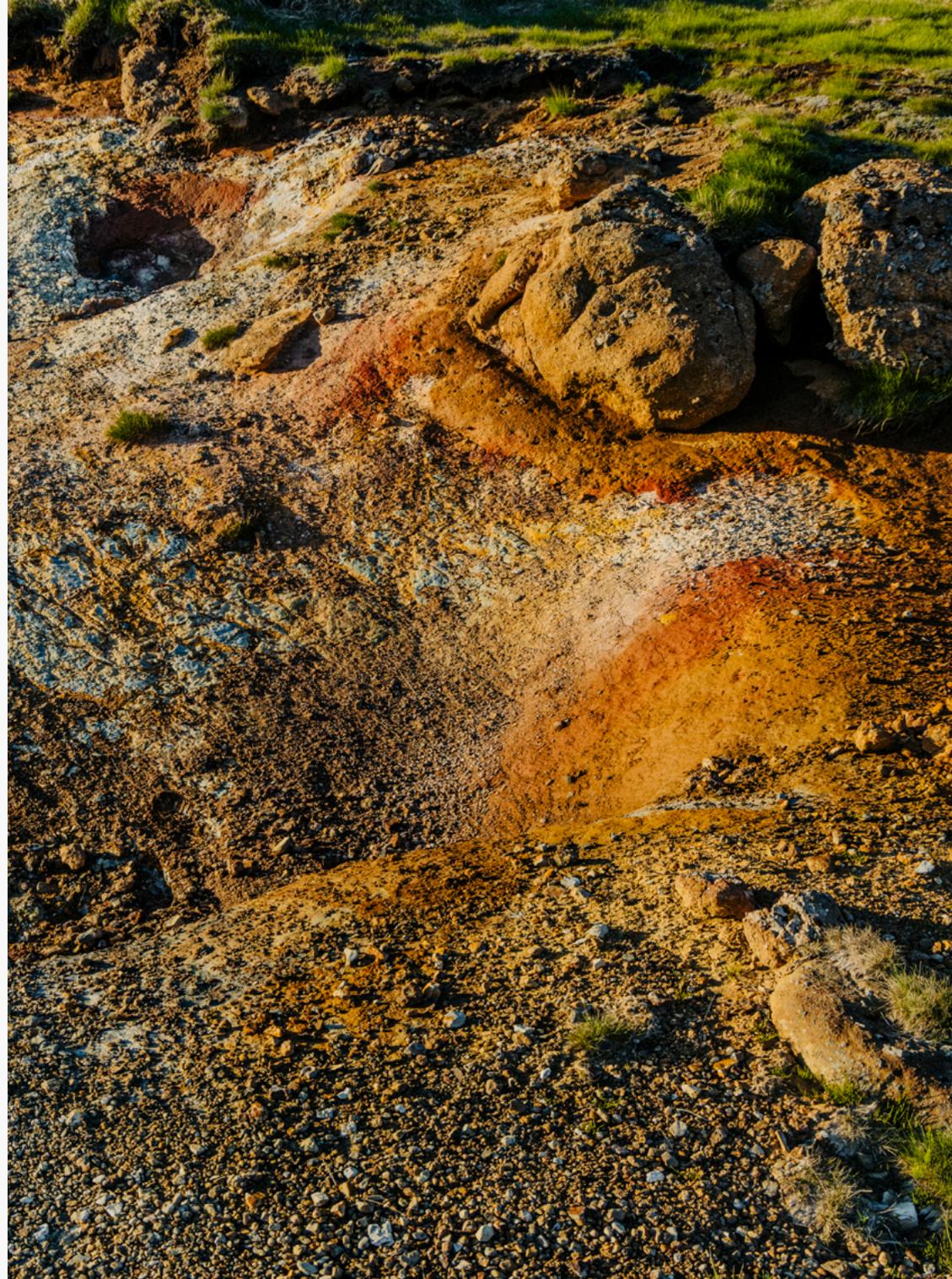
Climate Account 2025

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The climate account

Greenhouse gas (GHG) emissions are compiled annually, where the total emissions are calculated based on operations (activity data) from January 1st to December 31st each year. The climate account is conducted according to the methodology of the corporate standard Greenhouse Gas Protocol (GHGP) and in accordance with the international standard ISO 14064-1.

Purpose and objective of Reykjavík Energy's (RE) climate account

The purpose of RE's climate account is to transparently communicate RE's impact on climate change and its efforts to reduce those impacts. This includes informing stakeholders about the company's GHG emissions, specifying the types and amounts of emissions due to RE's operations, reporting plans and actions taken by the company to reduce emissions, improve energy efficiency, and transition to more sustainable practices.

Overall, the climate account of RE is a means to communicate the commitment to increased sustainability, present its environmental impact, and provide stakeholders with a better understanding of the company's climate-related initiatives and performance.

Intended use and users of the GHG inventory

RE's climate account is used by its owners, City of Reykjavík, the Township of Akranes, and the Municipality of Borgarbyggð, along with politicians, government agencies, licensing authorities, scientists, environmental organizations, and the public. Environmental authorities rely on the data to assess the effectiveness of adaptation and mitigation actions in climate issues and to monitor progress towards climate goals. Scientists use the data for climate analysis, and licensing authorities, environmental authorities, the public, and RE's employees use the information to advocate for sustainable practices and clarify responsibility for emissions from RE. Overall, RE's climate account contributes to transparency, accountability, and informed decision-making in addressing the climate crisis.

Frequency and accessibility of the climate account

Annually, RE compiles information about greenhouse gas emissions, mitigation actions for those emissions, carbon sequestration in land reclamation and afforestation, along with the net emissions from RE and publishes it publicly on its website. This includes an overview of the status of climate actions in relation to the company's climate goals.

Monitoring of the climate account and climate goals

RE's climate group consists of representatives from RE's Environmental Division, Research and Innovation, and all subsidiary companies. RE's role is to update the climate account and climate goals of the company as appropriate and for RE's Annual Report. RE initiates projects that contribute to the company achieving its climate goals and improve the climate account. Representatives of RE's Climate Group meet monthly.

Materiality

The materiality threshold of the climate account is 5%.

Responsibility for the climate account

The CEO of Reykjavík Energy is responsible for and confirms the results of the climate account and carbon footprint with the signature below. RE's Environmental Division is responsible for producing the report.



Reykjavík Energy

RE Mission

Orkuveitan supports growing communities, households and businesses through innovation in energy supply, utility operations and carbon fixation.

Reykjavík Energy (RE) is an energy- and utility company, jointly owned by the City of Reykjavík, the Township of Akranes, and the Municipality of Borgarbyggð. RE produces energy, hot and cold water, and develops utility infrastructure for three quarters of the Icelandic population.

Reykjavík Energy consists of four subsidiaries: Veitur Utilities, Reykjavík Fibre Network, ON Power, and Carbfix.

RE has been crucial for the development and urbanization of the capital region, significantly improving the living conditions of its residents.

Veitur Utilities

Veitur Utilities is the biggest utility company in Iceland. It operates electricity distribution, district heating, cold water supply, and wastewater utility for up to 70% of households in Iceland and as such provides the basic infrastructure for most of the Icelandic society.

Reykjavík Fibre Network

(IS. Ljósleiðarinn) is at the forefront of developing and managing a nationwide optical fibre network, serving as a fundamental component in facilitating the shift of communities towards a more sustainable future with faster and more efficient telecommunications, with around 75% of households in Iceland connected.

ON Power

Operates two geothermal power plants and a small hydropower plant that together produce approximately 17% of the electricity in Iceland. Together, the geothermal power plants produce hot water for over half of the capital region. Furthermore, ON Power has been leading the energy transition and has emphasised the installation of charging stations for electric vehicles (EV) both along the main routes around Iceland and within urban areas. This has been done in response to the rapid growth of EVs in the country, ensuring the rising demand for charging infrastructure is met.

Carbfix

RE's newest subsidiary, Carbfix, is a global leader in developing and implementing solutions to tackle global warming through Carbon Capture and Storage (CCS). This aligns well with RE's previous steps towards improving living conditions and quality of life through innovation.



Organizational boundary

The organizational boundary of the climate account is defined by the operational control approach. Reykjavík Energy (RE) has operational control over its subsidiaries, namely ON Power, Veitur Utilities, Reykjavík Fibre Network, and Carbfix. Associated companies in which RE holds a minority stake are not considered within the operational control approach. These are Landsnet, Orkuskipti REYST, Netorka hf. and Íslensk Nýorka. Associated companies are those where RE has limited influence over the financial and operational policy but does not have operational control. The company name Reykjavík Energy (RE) is used when referring to all the companies within the organization and organizational boundary.

Reporting boundaries

The reporting year for the climate account is 2025, with 2016 as base year.

Emissions sources are defined according to the GHG Protocol, with scope 1 (direct emissions), scope 2 (indirect emissions from energy use), and scope 3 (other indirect emissions) along with a scope for carbon in-setting and a specific scope for carbon dioxide (CO₂) emissions of biological origin.

All emissions sources from scope 1 and 2 are included, while emissions sources in scope 3 are selected based on the significance criteria explained on page 24 and shown in the table on

page 25. Exclusions are listed and explained on page 25.

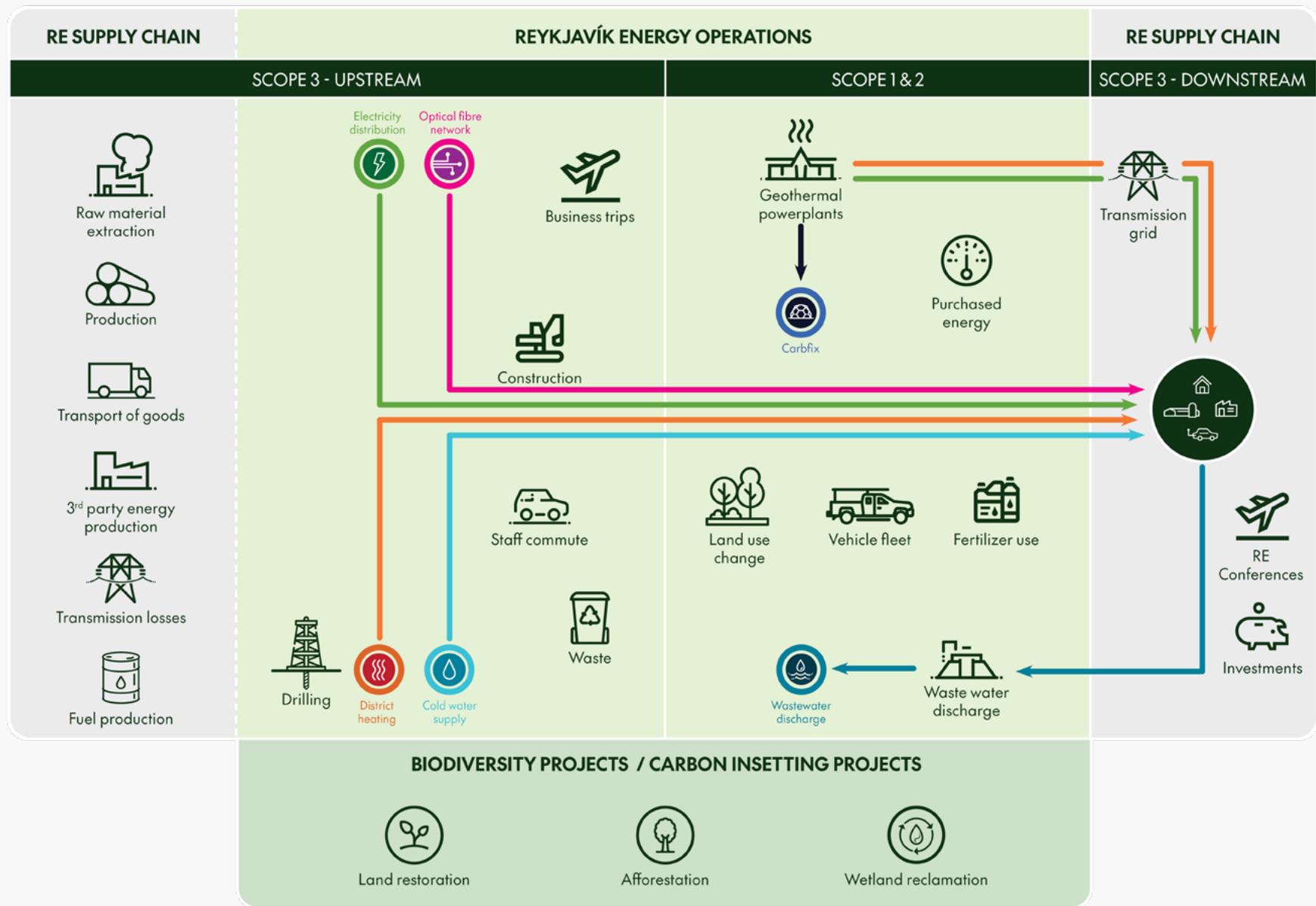
The reporting boundaries for RE's climate account are illustrated in the figure on page 6. The coloured lines, in the middle of the figure, represent the value streams operated by Veitur Utilities, ON Power, Ljósleiðarinn and Carbfix. Namely district heating and hot water production (orange), cold water supply (light blue), wastewater discharge (blue), electricity distribution and production (green), optical fibre network (pink), and carbon capture and storage (dark blue).

RE is directly responsible for emissions from its geothermal powerplants, vehicle fleet and wastewater discharge. These are reported under scope 1.

Reykjavík Energy Organizational boundary

Given the scope of RE's operations, that is basic infrastructure for most of the Icelandic society, the company is responsible for expanding and maintaining its utility systems. Much of the activities associated with this expansion and maintenance are outsourced to contractors, resulting in emissions that RE is indirectly responsible for. Further up the supply chain, this also results in emissions from the production and transportation of the goods procured in association with RE's operations. These indirect emissions are included in the reporting boundary along with the rest of the value chain, see figure on page 6.





Sustainability policy and climate goals

From RE's corporate strategy:

Certified Net Zero by 2040 based on the best standards and international implementation of Carbfix

Reykjavík Energy (RE) has committed to showing respect for the environment, resources, and the community in accordance with the company's ownership policy. RE's sustainability policy forms the basis for successful decision-making and good collaboration, built on information transparency. RE seeks feedback from stakeholders on the sustainability of its activities and responds to suggestions responsibly. The sustainability policy is based on RE's values – initiative, foresight, efficiency, and integrity - and is presented in alignment with the guiding principles of the company's ownership.

Within RE's operations, the most evident tasks involve mitigating and adapting to climate change with an increased emphasis on actions supporting the circular economy. By servicing up to two thirds of households in Iceland and being crucial for the development and urbanization of the capital region, RE will play a significant role in determining how Iceland succeeds in these tasks.

SBTi Net-Zero targets

In 2024, Reykjavík Energy had its net-zero targets validated by the Science Based Targets initiative (SBTi). The targets set a pathway to reach net-zero emissions in RE's own operations (Scopes 1 and 2) by 2030 and net-zero across the value chain (Scopes 1-3) by 2040, consistent with a 1.5°C-aligned decarbonization pathway.

RE uses 2016 as the base year, as it represents a typical GHG emissions profile for the company. Progress toward the targets is monitored and reported annually in the climate account.

Reykjavík Energy climate actions

To achieve its climate targets, RE has outlined significant steps in its emissions reduction strategy. These include the complete implementa-



tion of the Carbfix injection method at the Hellisheiði geothermal power plant in 2025, energy transition in the vehicle fleet and fostering an energy transition in construction processes, as well as encouraging the use of sustainable materials in procurement. See more about RE's actions in Reykjavík Energy's Climate Action Plan.

Reykjavík Energy's science based targets

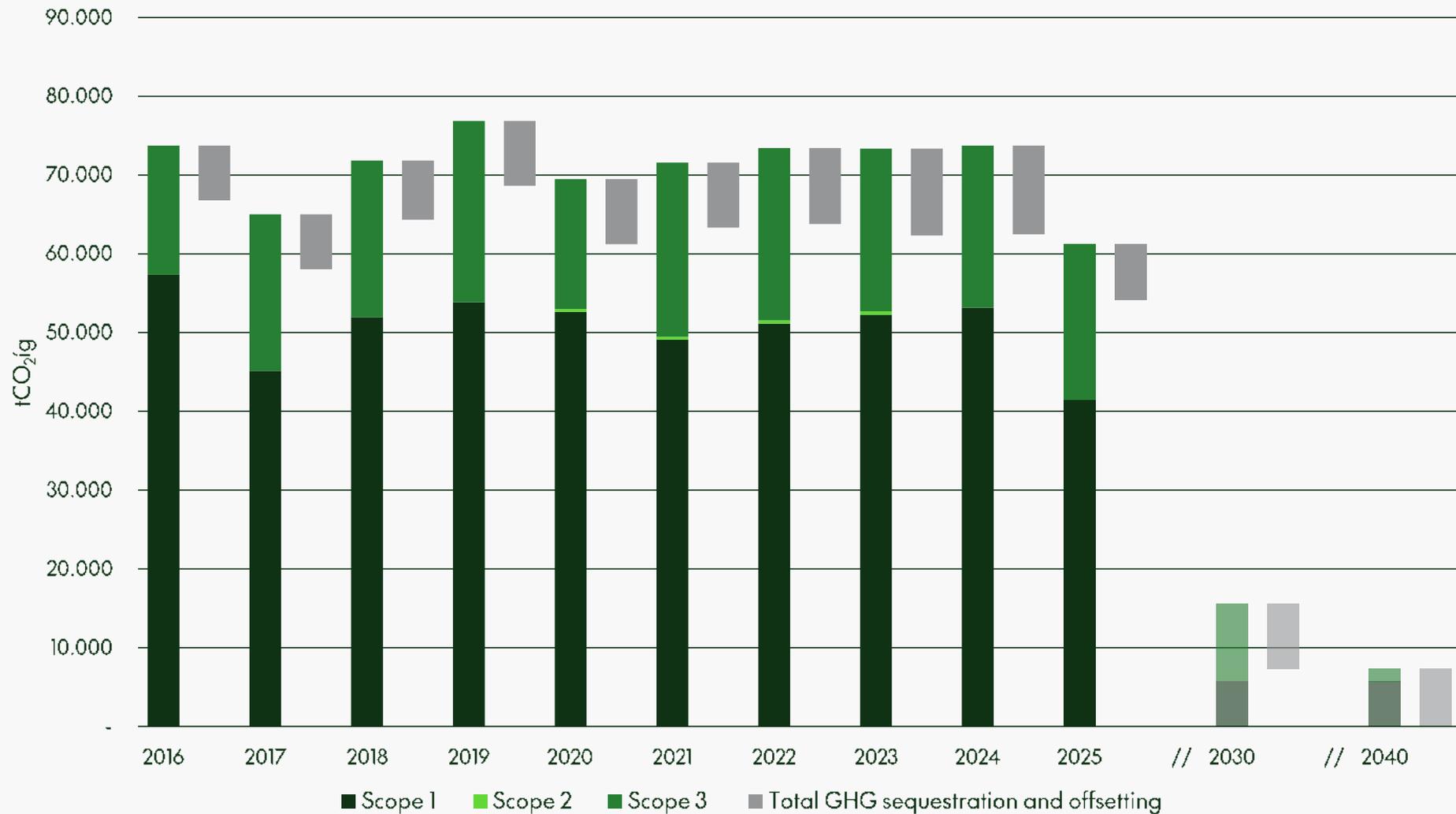
Scope	Unit	Base year	Goal 2030 1.5 °C	Goal 2040 Net-Zero
Scope 1 (Direct emissions from energy production)	tCO ₂ eq/MWh	2016	90.1% reduction	90.1% reduction
Scope 1+2 (Except for direct emissions from energy production)	tCO ₂ eq	2016	90% reduction	90% reduction
Scope 3	tCO ₂ eq	2016	40% reduction	90% reduction

Key climate related initiatives at Reykjavík Energy

Initiatives	Tools	Status	Description	Business Units
Energy Transition	Tenders	Implemented	Award points or make requirements in tenders for use of sustainable fuels in contractor work.	
• Energy transition in drilling projects	Internal carbon price	Implemented	The internal carbon price, 15,000 ISK/tCO ₂ eq, is used as a tool in decision-making.	
• Energy transition in trench work	Emission free construction sites	Under Consideration	Speed up and simplify the process of short-term connections to electricity within Veitur's electricity distribution system	
• Energy transition in the RE car fleet	Hydrotread vegetable oil (HVO)	Implemented	Use of HVO as a transition fuel until more electric machinery becomes available.	
Sustainable Procurement	Tenders	Implemented	Award points or make requirements in tenders for low-carbon products, e.g. recycled steel.	
• Procurement of low-carbon products	Internal carbon price	Implemented	The internal carbon price, 15,000 ISK/tCO ₂ eq, is used as a tool in decision-making.	
• Circular thinking	No trench solutions and pipe lining	Implemented	When possible, lining pipes instead of replacing them. This uses solutions that reduce the need for extensive trench digging.	
	Recycling of materials	Under Consideration	Explore opportunities to better recycle parts of the pipes at the end of their life	
Low-Emission powerplants	Hellisheiðavirkjun - pilot	Implemented	The pilot plant, commencing in 2016, captures up to 30% or 12,000 tCO ₂ from the Hellisheiði power plant	
• Carbon capture and injection	Hellisheiðavirkjun - Full scale	Implemented	Project Silverstone will be able to capture up to 34,000 tCO ₂ from the Hellisheiði power plant in addition to the pilot plant.	
	Nesjavellir - pilot	Implemented	The pilot plant, commencing in 2023, captures up to 9% or about 1,200 tCO ₂ from the Nesjavellir power plant.	
	Nesjavellir - Full scale	Under Consideration	Capture and injection facility in addition to pilot to capture at least 85% of CO ₂ from Nesjavellir power plant	
Forward-looking Utilities	Increased sewerage cleaning	Under Consideration	Increased cleaning can reduce the release of pollutants and nutrients into the sea. For example nitrogen that can turn into N ₂ O when released into the sea.	
• Sewerage	Innovation projects	Implemented	Innovative projects to limit the substances that end up in the sewer system, and increase the circular use of resources.	
• Use of F-gases	Tenders	Under Consideration	Requirement to purchase equipment that does not use SF ₆ or HFCs	
	Preventative maintenance	Implemented	Ensure no SF ₆ leaks occur from equipment or construction through proper maintenance.	
Nature based solutions	Restoration of natural vegetation	Implemented	Systematic efforts have been made to restore natural vegetation and the environment in areas affected by RE's operations, as well as restoration of unvegetated or sparsely vegetated areas.	
• Land reclamation	Planting of native tree species	Implemented	Restoring natural birch forests to strengthen biodiversity while also maintaining older afforestation areas.	
• Afforestation				

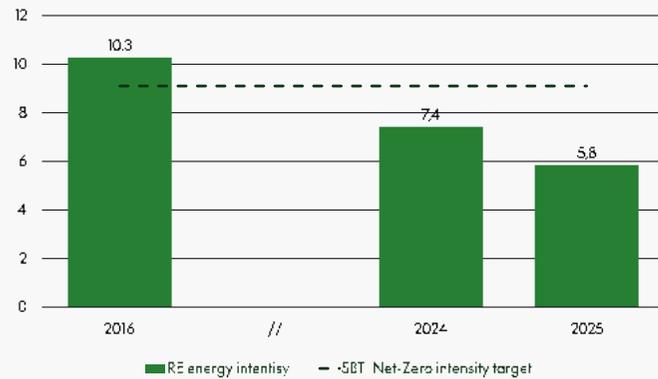
Key figures in 2025

Total GHG emissions, tonne CO₂eq, for Reykjavik Energy



Emissions intensity of gross energy generation

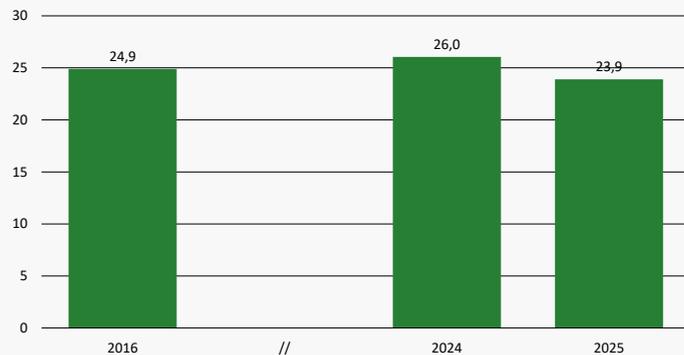
gCO₂eq/kWh



Since 2016 emissions per kWh of generated energy at Orkuveitan has decreased by 43% and is lower than the SBTi Net-zero intensity target for the power sector. Total energy generation has increased by 8% while total emissions from energy production have decreased by 30%.

Emissions intensity of treated wastewater

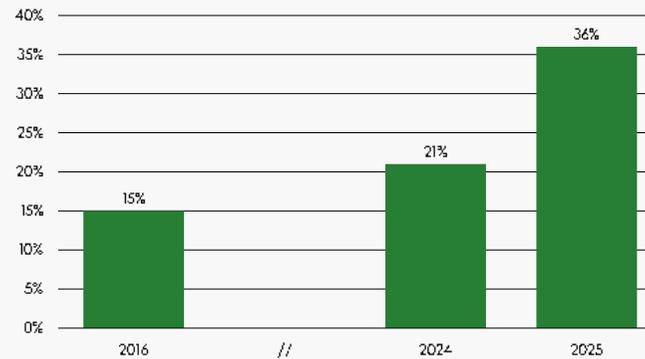
gCO₂eq/m³



Since 2016 emissions per m³ of treated wastewater at Orkuveitan has decreased by 4%. Total amount of wastewater coming through Veitur's sewage utility has increased by 25%, while total emissions from wastewater have increased by 20% since 2016.

Share of captured carbon dioxide

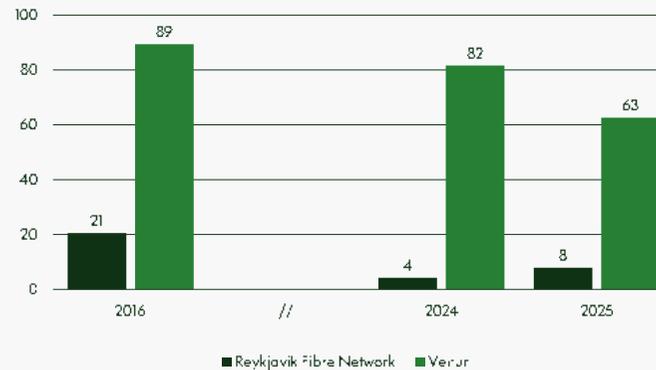
% of CO₂ captured and sequestered from Hellisheiði and Nejsavellir



Since 2016 emissions the share of CO₂ from ON Powers geothermal powerplants that has been captured and reinjected using the Carbfix method has increased by over 20%. The total amount of captured and sequestered CO₂ has increased by over 10,000 tCO₂eq since 2016.

Utility emission intensity

kgCO₂eq/m new utility networks



Since 2016 upstream emissions per m of new utility networks at Veitur has decreased by 30%, and by 62% at Reykjavik Fibra Network. This includes the total emissions from purchased goods, capital goods and services at Veitur and Reykjavik Fibra Network divided by the meters of new utility network, including the renewal of old utility networks.



Climate account

Total GHG emissions in 2025

Scope 1: **41,365** tCO₂eq.

Scope 2: **0** tCO₂eq.

Scope 3: **19,295** tCO₂eq.

In 2025 the Reykjavík Energy's (RE) total direct and indirect greenhouse gas (GHG) emissions amounted to 60,660 tonnes CO₂ equivalent, and net emissions were 53,595 tonnes CO₂ equivalent. The primary sources of these emissions were, direct emissions from RE's geothermal power plants, nitrous oxide (N₂O) emissions from wastewater discharge and indirect emissions from procurement. RE's emissions are categorized into three scopes: Scope 1 (direct emissions) which accounted for approximately 68% of total emissions, scope 2 (indirect emissions from purchased energy) which accounted for 0%, and scope 3 (all other indirect emissions) comprised 32%.

	2016	2020	2021	2022	2023	2024	2025
Scope 1							
Geothermal Powerplants	54,200	49,700	46,420	48,100	48,780	49,670	37,870
Ratio of injected CO ₂	15%	20%	24%	22%	21%	20%	36%
Steam utilites	80	95	105	140	150	140	140
Wastewater discharge	1,940	2,030	1,900	2,180	2,340	2,535	2,320
Fuel use (TTW)	515	440	360	410	545	525	475
Land use change	595	375	270	300	510	290	615
HFCs and SF ₆	10	1	50	15	25	25	15
Fertilizer for land reclamation	2	<1	<1	1	<1	<1	2
Total Scope 1	57,340	52,640	49,105	51,145	52,280	53,160	41,365
Scope 2							
Location based	0	345	365	400	420	0	0
Market based	0	0	0	0	55,055	80,265	70,230
Total Scope 2 (Location based)	0	345	365	400	420	0	0
Scope 3							
Purchased capital goods	9,090	9,080	13,280	14,040	11,750	9,390	9,460
Purchased goods	2,350	2,420	4,290	2,860	3,010	4,240	4,490
Purchased services	3,190	3,125	3,010	3,010	3,740	3,855	2,765
Transportation of goods	95	80	105	145	265	1,255	380
Fuel and energy related activities not incl. in scope 1	130	150	130	140	170	130	135
Transmission grid SF ₆	415	590	485	345	270	245	590
Sewerage waste	315	445	310	400	240	250	410
Waste	110	120	100	105	40	5	10
Employee commuting	135	50	85	110	95	250	250
Employee business travel	230	65	20	250	445	340	400
Downstream Event related travel	0	0	0	0	270	230	0
Investments	355	515	475	440	400	420	420
Total Scope 3	16,405	16,500	22,115	21,895	20,665	20,585	19,295
Biogenic Carbon emissions	40	60	50	50	45	40	90
Biodiversity and carbon insetting projects	-6,945	-7,010	-7,015	-7,030	-7,030	-7,055	-7,065
Carbon offsetting projects	0	-1,250	-1,250	-2,610	-4,000	-4,200	0
Total GHG emissions	73,745	69,485	71,585	73,440	73,365	73,745	60,660
Total GHG sequestration and offsetting	-6,990	-8,250	-8,260	-9,640	-11,030	-11,255	-7,065
Net emissions	66,810	61,220	63,320	63,805	62,335	65,520	53,595

Scope 1 emissions and reduction initiatives

In 2025:

RE's geothermal power plants emitted **37,870 tonnes CO₂-eq**, which is a **30% decrease** from 2016.

Geothermal powerplants and Carbfix CCS method

Geothermal steam used for power and heat production contains greenhouse gases (GHGs), primarily carbon dioxide (CO₂) and methane (CH₄). These gases are typically released to the atmosphere unless abatement occurs. To mitigate these emissions, Reykjavík



Siverstone carbon capture facility

Energy (RE) developed the Carbfix method, a carbon capture and storage (CCS) technology that permanently mineralizes CO₂. Implementation of the Carbfix technology at geothermal facilities is a cornerstone of RE's emission reduction strategy.

Carbfix began as a research collaboration in 2006 and formalised in 2007 by Reykjavík Energy, the University of Iceland, CNRS in Toulouse, and the Earth Institute at Columbia University. Since then, several universities and research institutes have contributed through EU-funded research projects.

Since 2016, geothermal power plants, Hellisheiði and Nesjavellir, have accounted for approximately 65–75% of RE's total GHG emissions. Industrial-scale CO₂ capture using Carbfix began at Hellisheiði in 2014, capturing around 20-30% of CO₂ from Hellisheiði. Pilot injections started at Nesjavellir in 2023, capturing and injecting between 2–9% of CO₂ from Nesjavellir.

In 2025, the overall CO₂ capture rate at the powerplants increased to 36%, as project Silverstone commenced in June of 2025. Project Silverstone, a fully scaled capture plant at Hellisheiði, increases the capture capacity of CO₂ to around 95% for the geothermal plant. Thus, CO₂ capture is expected to rise further as operation of the Silverstone capture facility stabilizes and the initial learning phase is completed. In 2025, 46% of CO₂ from Hellisheiði power plant was captured and permanently sequestered.

Year-to-year variability in emissions from geothermal plants is explained by several factors, mainly:

- Installed gas capture capacity.
- Variability in the uptime of the CO₂ capture unit at Hellisheiði and Nesjavellir geothermal powerplant, due to temporary shutdowns related to either construction or unexpected failures.
- Variability in energy production at geothermal powerplants.
- Variability of CO₂ concentration in new boreholes connected to the Hellisheiði geothermal powerplant.

Geothermal powerplant emissions are calculated as the uptake of from geothermal wells minus the captured and sequestered CO₂.

Steam utilities

RE operates a few steam utilities, one in Hveragerði Town, a municipality east of Hellisheiði powerplant, and Híðarveita steam utility. These are district heating systems which draw their energy from geothermal steam. This steam consists partially of GHG, including CO₂ and CH₄, which are emitted once the steam has been used for heating. The GHG emission have been roughly estimated as 140 CO₂-eq in 2025, up from 80 tonnes CO₂-eq in 2016. It should be noted that these emissions lack precise measurements. RE is currently working on developing more concise measurement methods for this emission category.

Wastewater discharge

RE manages the infrastructure and operation of wastewater systems that service most of Iceland's capital area, as well as in the Township of Akranes and the Municipality of Borgarbyggð in West Iceland. The wastewater infrastructure serves approximately 60% of the population in Iceland. From the treatment plants, the treated wastewater is discharged to the ocean.

This treated wastewater consists of organic nitrogen, methane, and carbon. RE accounts for N₂O and CH₄ emissions in scope 1 from the resulting decomposition, CO₂ is however not reported, as it comes from a biogenic origin. Methane forms where organic material from the wastewater discharge is buried into sediment where it decomposes in an anaerobic environment. This is the case at two locations in West Iceland, Hvanneyri and Reykholt, where the wastewater is discharged to lakes. At other locations where wastewater is discharged to marine environments, or where there is active flow, the erosion rate of sediment is too great to assume that the discharged material is buried in sediment. In 2025, GHG emissions totalled 2,320 tonnes CO₂-eq, marking a 20% increase from 2016 and an 8% decrease from 2024. The general increase in emissions is attributed to the increased volume of wastewater received and processed by Veitur.

Fuel use (TTW)

Reykjavík Energy (RE) purchases and uses fuel for its vehicle fleet and other machinery. Tank-to-Wheel (TTW) emissions refer to tailpipe emissions generated during fuel combustion, while Well-to-Tank (WTT) emissions are

reported under Scope 3.

In 2025, TTW emissions totalled 405 tonnes CO₂-eq, representing a 21% reduction compared to 2016 and a 23% decrease year-on-year from 2024.

Between 2016 and 2025, the total number of vehicles in RE's fleet increased slightly from 177 to 182, while the share of clean-energy vehicles rose significantly from 24% to 50%. RE is actively phasing out fossil-fuel vehicles and machinery in favour of more sustainable alternatives.

In summer 2025, the use of hydrotreated vegetable oil (HVO) was introduced for approved diesel vehicles in Veitur's and Reykjavík Fibre Optics' fleets, serving as a transitional solution while fleet electrification progresses. RE plans to continue and expand the use of HVO in 2026 and explore further opportunities to apply it across a larger share of the vehicle fleet.

HFCs and SF₆

Reykjavík Energy (RE) uses two types of greenhouse gases (GHGs) in its operations that fall under hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF₆).

Sulphur hexafluoride (SF₆), which has a global warming potential (GWP) of 23,500, is used as an insulating gas in electrical equipment within both the electricity distribution system and geothermal power plants. In addition, SF₆ is used as a tracer gas in tracer flow tests (TFTs) to measure steam uptake from high-temperature geothermal boreholes.

In RE's freshwater utility, HFCs are used in air-conditioning systems to maintain dry air



Veitur utilities substation in Reykjavík

conditions in pumping stations. Historically, RE used HFC-134a, which has a GWP of 1,300. Since 2021, newly purchased cooling equipment uses R454C—a blend of HFC-32 and HFC-1234yf, with a significantly lower GWP of 148.

In 2025, emissions from HFCs and SF₆ totalled 15 tonnes CO₂-eq, primarily from the use of SF₆ in tracer flow tests and from the replacement of a switch at the geothermal power plants. Emissions reported for 2024 were corrected to include a previously omitted switch replacement. RE aims to phase out the use of HFCs and SF₆, including through the replacement of SF₆-based switches with vacuum-sealed alternatives.



Heiðmörk, drinking water source area for Veitur Utilites

Fertilizer usage

Fertilizer is used on RE's land in afforestation and land reclamation projects. The fertilizer consists partially of nitrogen which is converted to N₂O after application. Total emissions resulting from fertilizer application are less than 2 tonnes CO₂-eq in 2025. In 2024 RE switched to fertilizer with less nitrogen content and will continue to look into more possibilities to minimize emissions associated with land reclamation and afforestation efforts.

Land use changes

In 2025, emissions from land use change totaled 615 tonnes CO₂-eq, a 3% increase compared to 2016 and a 112% rise from 2024. The increase is mainly due to expanded development activities, including site preparation, infrastructure construction, and land disturbance linked to new projects, leading to higher soil carbon losses and vegetation removal.

RE continues to prioritize minimizing land disturbance, optimizing site design, and implementing early restoration measures to reduce long-term impacts and related emissions.

Scope 2 emissions and reduction initiatives

Scope 2 emissions refer to indirect greenhouse gas (GHG) emissions associated with the Reykjavík Energy's (RE) purchase of electricity and heating.

Location based approach

Using the location-based approach, emissions from purchased electricity and heating were 0 tonnes CO₂-eq in 2025, the same as in 2016. This is due to RE only purchasing electricity from within the organizational boundary, where emissions from the production of this electricity have already been accounted for in scope 1. Similarly, there are no emissions from heating as RE generates all the geothermal water used for heating, with these emissions also included in scope 1. In years when location-based Scope 2 has been non-zero, this has been due to Veitur purchasing electricity from third-party producers outside the organizational boundary, for example to cover electricity needed for distribution losses.

The location-based approach is applied in RE's total carbon footprint.

Market based approach

Under the market-based approach, emissions amount to 70,230 tonnes CO₂-eq in 2025, down from 80,265 tonnes CO₂-eq in 2024, and up from 0 tonnes CO₂-eq. in earlier years, when Guarantees of Origin (GOs) were retained for RE's operations.

Under this approach, electricity accompanied by a GO is assigned an emission factor of zero. Electricity purchased without GOs is instead assigned an emission factor based on the residual mix, as published annually by the Icelandic Environment and Energy Agency (IEEA). This methodology aligns with the recommendations of the Association of Issuing Bodies (AIB), which developed and oversees the European Energy Certificate System (ECS).

The increase in market-based emissions is driven by both an increase in the residual mix emission factor and a reduction in the number of GOs retained for RE's electricity consumption.

It should be noted that the emission factor applied to market-based emissions in 2025 is based on the 2024 residual mix, as the 2025 residual mix emission factor had not yet been published at the time of release of the climate account. Likewise, the reported market-based emissions for 2024 have been recalculated using the updated 2024 emission factor.

Market-based emissions from heating are identical to location-based emissions, as no GOs are sold in this market.

Scope 3 emissions and reduction initiatives

In 2025:

Orkuveitan completed a tender process for the drilling of 35 wells through 2028. The tender requires the use of **electric drilling rigs in all projects**.

Purchased goods and capital goods

Procured goods have a carbon footprint resulting from both direct and indirect emissions generated by suppliers during the production of those goods. Reykjavík Energy (RE) evaluates indirect emissions from procurement using Life Cycle Assessment (LCA) data for products purchased by RE. Where product-specific Environmental products declarations (EPD) or LCA data are not available, spend-based emission factors published by the United Kingdom's Department for Environment, Food & Rural Affairs (DEFRA) are applied.

In 2025, LCA-based data was used to evaluate the emissions from 21% of the total value of RE's procurement. Included are all the goods and capital goods paid for in the reporting year. In many cases delivery of the goods is included in the contract, in which case the emissions of transportation are included in the purchased goods and capital goods category.

Total emissions related to procurement of capital goods were 9,460 tonnes CO₂-eq. in 2025, which presents a 4% increase from 2016. The product category contributing to most of the

impacts from total procurement was "Basic iron and steel" with "33% of the impacts". RE is actively evaluating ways to procure more sustainable goods, focusing on sustainably produced steel, as steel pipes are a substantial part of RE's purchases. Emissions from procurement of goods other than capital goods were 4,490 tonnes CO₂-eq. in 2025, an increase of 90% from 2016. RE is proactively communicating with its main suppliers to find ways to reduce procurement-related emissions.

As most procurement emissions are currently estimated using spend-based emission factors, the results are subject to significant uncertainty and volatility. RE is working to improve the quality and coverage of emissions data for purchased goods and services, which will also support more informed and sustainable procurement decision-making in the future.

Purchased services

RE's primary service-related emissions stem from construction activities (mainly trench work) and drilling. Construction emissions totalled 2,765 tonnes CO₂-eq in 2025, representing a 13% decrease compared to 2016. Thereof, emissions from drilling amounted to 690 tonnes CO₂-eq in 2025, a considerable increase from 75 tonnes CO₂-eq in 2016.

The reduction in overall construction emissions reflects both lower construction activity and increased use of hydrotreated vegetable oil (HVO) in trench work, as well as greater electrification of drilling operations. Although high-temperature geothermal drilling now relies almost exclusively on electricity, the emissions avoided through electrification have not



Exploratory geothermal well at Meitlar

been sufficient to offset the overall increase in drilling activity.

RE is collaborating with suppliers to assess the feasibility of electrifying smaller-scale drilling projects, including cold and hot water drilling. More broadly, RE actively encourages contractors to support the energy transition as part of its strategy to promote sustainable practices and reduce emissions across its operations and value chain.

Breakdown of emissions from purchased services in 2025

Emissions tCO ₂ -eq.	2025
Trench digging by contractors	1,665
Trench digging WTT	410
Drilling by contractors TTW	550
Drilling WTT	140
Total purchased services	2,765

Transportation of goods

Goods are transported to and from Iceland by air through commercial airlines and cargo planes. Furthermore, Iceland relies on sea transportation via cargo ships. Goods are transported by land using trucks and other vehicles, which is crucial for the last-mile delivery of goods to their final destinations, serving both RE's urban and rural service areas. Emissions from transportation of goods were approximately 380 tonnes CO₂-eq. in 2025, including both tank-to-wheel (TTW) and well-to-tank (WTT) emissions. This is an increase of

300% from 2016. Emissions within this category may vary significantly between reporting years due to changes in transportation volumes and logistics requirements, as well as volatility in spend-based emission factors.

Please note that this category only includes transportation of goods directly paid for by RE, transportation of goods in the supply chain is included in the category purchased goods and capital goods.

Upstream fuel & energy related activities not included in scope 1&2

This category covers upstream (well-to-tank) emissions from fuels consumed in Scope 1 and indirect emissions related to purchased electricity, including transmission and distribution losses.

In 2025, emissions from purchased electricity and associated transmission losses were 0, as no electricity was procured from third parties during the year. Electricity produced internally by RE is accounted for under Scope 1.

Upstream fuel-related emissions (WTT) amounted to 120 tonnes CO₂-eq. in 2025, representing a 8% decrease compared to 2016. While Scope 1 fuel emissions have decreased slightly more due to the replacement of diesel with HVO, upstream emissions remain, as HVO is associated with WTT emissions. These emissions are expected to decline as fleet electrification continues.

Breakdown of emissions from Upstream fuel & energy related activities not included in scope 1&2 I in 2025

Emissions tCO ₂ -eq.	2025
Upstream emissions of purchased electricity	0
Transmission losses	0
Fuel use (WTT)	120
Total	135

Transmission grid

RE calculates its indirect emissions attributable to SF₆ leakages from the electricity equipment of Landsnet, the national electricity grid operator. SF₆ is a potent greenhouse gas used as an insulating material in electrical equipment. RE's approach to estimating these emissions involves assessing its proportion of electricity production relative to Iceland's total production. This method allows RE to determine its share of the environmental impact caused by Landsnet's SF₆ leakages.

Between 2016 and 2025, Landsnet reported SF₆ leakages varying from 85 to 145 tonnes of SF₆. In 2024, the SF₆ leakages from Landsnet that were incorporated into RE's climate account amounted to 25 kg of SF₆, which translates to 590 tonnes of CO₂-equivalents. This is an increase of 42% since 2016 and 140% since 2024 and is due to a serious leak in Landsnet systems in 2025.

Sewage waste

In RE's wastewater treatment operations, filtered sewage waste is systematically gathered and then transferred to designated waste collectors. In 2025, the indirect emissions resulting from the handling and processing of this sewage waste were calculated to be approximately 410 tonnes of CO₂-equivalent. This is a 30% increase from 2016.

During the 2025 reporting year, challenges related to data completeness and registration of certain sewage waste streams were identified. To address data gaps, figures for fat waste from the capital area reported in 2024 were used as a proxy. Measures are currently being implemented to strengthen data collection procedures, improve traceability, and enhance documentation quality in future reporting periods.

RE's initiatives include working on innovative projects to prepare for the reuse of sewage waste such as sand, sludge and fat which is of value in the circular economy.

Breakdown of emissions from sewage waste in 2025

Emissions tCO ₂ -eq.	2025
Fat and Screening waste	350
Sludge from biological treatment	60
Sand	0
Total	410

Waste

In 2025, emissions from waste generated in RE's operations totalled 16.1 tonnes CO₂-eq, up from 4.5 tonnes CO₂-eq in 2024, representing a 257% increase, and approximately 89% lower than in 2016. The long-term decline is primarily driven by changes in Iceland's waste treatment practices, including a shift away from landfilling towards combustion/energy recovery and biological treatment pathways. In 2025, metal waste is reported in two sub-streams (home/office and industrial) to better reflect different compositions and treatment routes and to apply more appropriate emission factors.

Breakdown of emissions from waste in 2025

Emissions tCO ₂ -eq.	2025
Landfill	2
Compost	8
Combustion	1
Reused/Recycled	<1
Hazardous	<1
Total	12

The increase between 2024 and 2025 is mainly explained by updates to emission factor sources and methodological assumptions, rather than a step-change in waste generation. The most important driver in the 2024 recalculation is the updated emission factor sources for organic and hazardous waste, reflecting real Icelandic treatment routes.

Emission factors for waste emissions are primarily sourced from the United Kingdom's De-

partment for Environment, Food & Rural Affairs (DEFRA). Where Iceland-specific emission factors better represent actual treatment routes, factors published by the IEEA are applied (e.g., organic waste treated through GAJA).

Previous years' waste emissions will not be recalculated based on the updated methodology as the changes do not cross the emission materiality threshold.

Employee commuting

RE accounts for emissions associated with employees' commuting to and from work. Every year RE conducts a survey among its employees to gather information about their commuting habits. This survey inquiries about the modes of transportation used by the employees, frequency, and the distance between their homes and the workplace.

Breakdown of emissions from employee commuting in 2025

Emissions tCO ₂ -eq.	2025
Employee commute TTW	205
Employee commute WTT	45
Total	250

In 2025, the emissions resulting from employees' commutes to work amounted to 250 tonnes of CO₂-equivalent. There of 205 tonnes of CO₂-equivalent TTW emissions and 45 tonnes WTT emissions. This represents approximately a 76% increase compared to 2016, and no change from 2024, although the average emissions per employee has decreased between

years. The significant increase from the base year can be attributed partially to an increase in the average distance travelled to work and the number of full-time workers over the years. Emissions in this category include both WTT and TTW emissions.

RE offers a comprehensive travel plan package to its employees to encourage eco-friendly commuting. This package includes initiatives such as a green travel grant, which is a monetary incentive granted to employees that opt for climate-friendly modes of transport. RE also provides free charging for electric vehicles at the workplace and access to electric bicycles. Additionally, following the experience during covid pandemic, RE supports flexible working arrangements, with the option to work from home, which can notably reduce the need for daily commuting.

Employee business travel

RE employees travel for work-related purposes, including conferences and business meetings. In 2025, emissions from employee air travel amounted to 345 tonnes CO₂-eq, of which 15 tonnes CO₂-eq. were well-to-tank (WTT) emissions. This represents an increase of approximately 70% compared to the 2016 baseline year.

Emissions from hotel accommodation associated with business travel totalled 55 tonnes CO₂-eq. in 2025, corresponding to an increase of approximately 120% compared to 2016.

Breakdown of emissions from business travel in 2025

Emissions tCO ₂ -eq.	2024
Air travel	285
Air travel WTT	10
Hotel Stays	45
Total	340

Downstream event related travel

RE accounts for air travel and hotel accommodation of external participants attending conferences hosted by RE. As no such events were held in 2025, emissions in this category were 0 tonnes CO₂-eq. for the reporting year.

Investments

Emissions from investments are calculated on a proportional share basis, reflecting RE's ownership in associated entities

In 2025, emissions attributed to investments totalled 420 tonnes CO₂-eq, representing an increase of approximately 14% compared to the 2016 baseline year. Most of these emissions originated from Landsnet, the operator of the Icelandic electricity transmission network, which accounted for 415 tonnes CO₂-eq in 2025, corresponding to an 18% increase compared to 2016.

Emissions from other investments were immaterial and primarily related to office-based activities. Netorka hf., Íslensk Nýorka, and DMM Lausnir ehf. each generated 1–3 tonnes CO₂-eq in 2025, broadly in line with previous years. RE

sold its remaining shares in Aflvaki, Keilir, and Heimsþing during the reporting period.

Investment-related emissions are calculated using entity-specific GHG inventories where available and general emission factors for office-based activities otherwise. Landsnet's GHG inventory is the primary data source for transmission-related emissions.

Biogenic carbon emissions

Reykjavík Energy (RE) reports its biogenic CO₂ emissions separately, adhering to the guidelines of the ISO 14064-1 standard. These emissions originate from the biofuel blend included in the fossil fuels RE purchases, from Hydro-treated vegetable oil (HVO) as well as from methane fuel. In 2025, RE's total biogenic CO₂ emissions amounted to 90 tonnes of CO₂. The increase in biogenic CO₂ emissions is due to the switch from diesel to HVO in the car fleet.

Wastewater discharge releases biogenic CO₂ emissions, these have not been quantified and are not included in RE's total biogenic CO₂ emissions.

GHG breakdown in scope 1

The greenhouse gases (GHGs) that are released directly into the atmosphere because of Reykjavík Energy's (RE) operations are carbon dioxide (CO₂), methane (CH₄), sulphur hexafluoride (SF₆), nitrous oxide (N₂O), tetrafluoroethene (HFC-134a) and R454c, a mixture between HFC-32 and HFC-1234yf.

Carbon dioxide (CO₂) is released from the operation of geothermal powerplants and due to research and maintenance drilling in the high-temperature geothermal fields. Furthermore, CO₂ is in the steam utility and due to the operation of fixed and mobile back-up power

stations in the supply and distribution system. CO₂ is also released due to the burning of fuel in RE's car fleet and in projects where land that is owned or operated by RE is converted e.g. to borehole sites and as a result there is a decrease in the lands carbon stock.

Methane (CH₄) is released from the operation of geothermal powerplants and due to research and maintenance drilling in the high-temperature geothermal fields. Furthermore, CH₄ is released due to the decomposition of organic substances in wastewater discharge in lakes, landfilling of waste and the burning of fossil fuels in RE's car fleet.

Nitrous oxide (N₂O) is released due to the decomposition of organic substances as wastewater is discharged in the ocean, due to the

burning of fossil fuels in RE's car fleet and as fertilizers are used in land reclamation and afforestation projects.

Hydrofluorocarbons (HFCs) such as tetrafluoroethene (HFC-134a) and R454c are used in the water utility system for cooling air and to prevent moisture forming on pipes, e.g. in airtight pumping stations.

Sulfur hexafluoride (SF₆) is used in electrical equipment in geothermal power plants, in supply and distribution systems, and it can be released when it leaks from the equipment. SF₆ can also be released during tracer flow tests (TFT) in high temperature boreholes.

Breakdown of scope 1 emissions by GHG

2024 Scope 1, tonnes GHG								
Source:	Geothermal Powerplants	Steam Utility	Wastewater discharge	Fuel use (TTW)	Land use changes	HFCs & SF ₆	Fertilizer for land reclamation	Total
CO ₂	34.233	139.4		397	613	0	0	35.382,4
CH ₄	130	0.10	0.12	0.033	0	0	0	130.3
N ₂ O	0	0	8.75	0.025	0	0	0.006	8.8
SF ₆	0	0	0	0	0	0.0005	0	<1
HFC-134a	0	0	0	0	0	0	0	0
R454c	0	0	0	0	0	0	0	0

Energy production

Reykjavík Energy (RE) subsidiary ON power produces renewable energy from geothermal and hydro power. Electricity is produced at Andakill hydropower plant as well as from high temperature geothermal sources at Hellisheiði and Nesjavellir geothermal powerplants where hot water is also co-produced for district heating, industry and the resource park.

Veitur Utilites also drill for geothermal water from low temperature geothermal sources for hot water supply in the district heating system.

RE utilises about 12% of produced electricity and a 1% of its heating for its own operations.



Andakill, hydropower plant

Energy production from 2016-2025

Energy production	Unit	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Electricity	GWh	3,400	3,500	3,500	3,500	3,600	3,500	3,500	3,500	3,400	3,200
Hot water*	GWh	4,400	4,500	4,800	4,700	5,300	5,000	4,900	5,200	5,800	5,200
High temperature fields	-	1,900	1,900	2,000	2,000	2,500	2,600	2,600	2,800	3,100	3,000
Low temperature fields	-	2,500	2,600	2,800	2,700	2,800	2,400	2,300	2,400	2,700	2,200

*One m³ of hot water in the district heating system is equivalent of 52 kWh. This is an update based on data from Veitur's smart meters. previously 58 kWh were assumed. Historical Energy production numbers have been corrected accordingly.

Emissions intensity of energy

Reykjavík Energy's (RE) emissions intensity of its energy production, electricity, and heating, refers to the amount of GHG emitted per unit of energy generated. It is one of the measures that quantifies the environmental impact of producing energy. RE expresses its emissions

intensity for electricity in grams of CO₂ equivalent per kilowatt-hour (gCO₂-eq/kWh) and for heating in grams of CO₂ equivalent per cubic meter (gCO₂-eq/m³). The emission factors (hot water and electricity) for power plants are calculated as total power plant emissions, divided by total energy (heat and electricity). The hot water emission factor is further calculated by applying the fraction of hot water in relation to total hot water production.

In 2025, the emissions intensity for electricity is 5.8 gCO₂-eq/kWh which is over a 40% decrease compared to 2016. The emissions intensity for heating is 174.5 gCO₂-eq/m³ which represents a 23% decrease compared to 2016. The smaller decrease in the emission intensity of hot water is due to increased hot water production from power plants in relation to total hot water production.

Emissions intensity of energy production at Reykjavík Energy

Emissions intensity	Unit	User Scope	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Electricity (gross energy production)	gCO ₂ -eq./kWh	Scope 2	10.3	7.9	8.4	8.9	8.1	7.4	7.5	7.3	7.4	5.8
Electricity (net energy production)	gCO ₂ -eq./kWh	Scope 2	10.8	8.2	9.4	9.4	8.4	7.7	7.9	7.6	7.7	6.1
Hot water	gCO ₂ -eq./m ³	Scope 2	227.3	174.0	196.3	197.5	197.4	197.4	209.4	206.7	205.5	174.5
Electricity-upstream ¹	gCO ₂ -eq./kWh	Scope 3	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Hot water upstream ²	gCO ₂ -eq./m ³	Scope 3	39.8	39.9	39.9	39.8	43.9	48.0	50.0	51.0	49.9	53.7
Electricity-distribution losses ³	gCO ₂ -eq./kWh	Scope 3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2
Hot water-distribution ⁴	gCO ₂ -eq./m ³	Scope 3	4.3	3.5	3.6	3.4	3.5	3.3	3.1	3.1	3.4	2.9
Wastewater treatment & distribution ⁵	gCO ₂ -eq./PE	Scope 3	404	310	408	316	566	389	322	386	337	340
Potable water - distribution ⁶	gCO ₂ -eq./m ³	Scope 3	1.4	1.1	1.3	1.2	1.5	1.3	1.3	1.2	1.2	1.2
Fibre optics - distribution ⁷	gCO ₂ -eq./gb	Scope 3	0.05	0.05	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.01

¹**Electricity - upstream:** Based on a life-cycle assessment (LCA) for Hellisheiði power plant. Includes upstream emissions associated with plant construction, materials, and other value chain activities (Scope 3, power plant boundary).

²**Hot water - upstream:** Based on a life-cycle assessment (LCA) for Hellisheiði power plant, allocated and weighted between low-temperature and high-temperature heat production. Includes upstream value chain emissions (Scope 3, power plant boundary).

³**Electricity - distribution losses:** Emissions associated with transmission and distribution losses of electricity supplied to end users (Scope 2 in RE climate account). Reported as Scope 3 emissions for the user.

⁴**Hot water - distribution:** Includes operational emissions from distribution of district heating. There are no direct (Scope 1) emissions from distribution. Emissions arise from electricity used for pumping and operation (Scope 2). Thermal losses in the distribution network are minimal to negligible.

⁵**Wastewater treatment & distribution:** Includes direct emissions from wastewater (Scope 1) and indirect emissions from electricity use in treatment and distribution (Scope 2).

⁶**Potable water - distribution:** Includes fugitive refrigerant emissions (HFCs) from water system equipment (Scope 1) and indirect emissions from electricity use in distribution (Scope 2).

⁷**Fibre optics - distribution:** Includes indirect emissions from electricity use associated with operation of the fibre optic distribution network (Scope 2). There are no material direct (Scope 1) emissions related to fibre optic distribution activities.

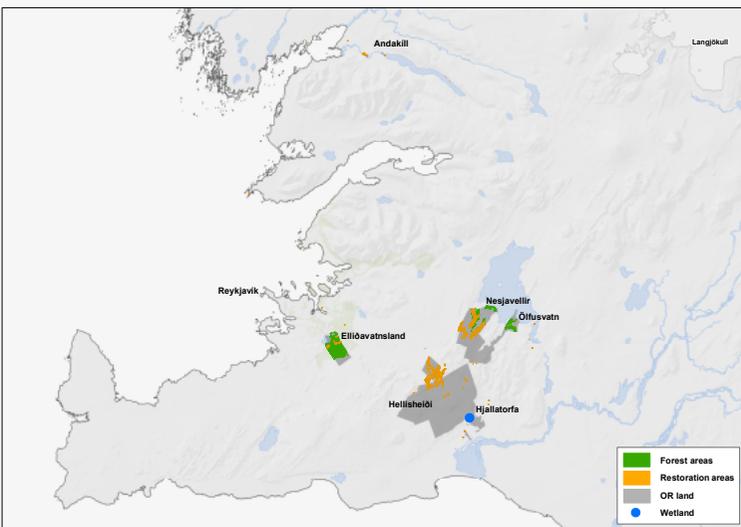
Greenhouse gas sequestration and offsetting

In 2025:

A total of **8 ha of new land was added to RE's biodiversity projects** and land-based carbon insetting projects

Biodiversity and land-based carbon insetting projects

Reykjavík Energy (RE) has undertaken land reclamation and afforestation on the company's own land for more than 70 years, or since 1950. These nature-based projects aim to restore soil and vegetation cover, improve soil,



RE biodiversity projects

rejuvenate natural birch forests, and enhance biodiversity. In the past decade, an additional goal has been to sequester greenhouse gases (GHG) in vegetation and soil and thereby aligning RE's land management strategies with climate change insetting efforts.

The synergy between these objectives is beneficial. Land restoration in Iceland is a work of patience due to weather conditions and lack of essential nutrients in the soil, which are limiting factors for vegetation and soil biota growth.

Rewetting of peatland on RE's land took place in the fall of 2016 with the aim of reducing carbon emissions from the land and restoring wetland ecosystems.

See the figures for RE biodiversity projects and project boundaries for an overview of the areas where RE has worked actively towards land reclamation, afforestation and rewetting of peatland, see figures below and on page 23.

Strengthening of biodiversity in vegetation and soil on RE's own land is and will continue to be a part of the goals of nature-based solutions at RE.

See the climate account overview on page 11 for total GHG sequestration in previous years.

GHG sequestration in 2025

Sequestration tCO ₂ -eq.	2025
Afforestation	5,740
Land Reclamation	1,285
Rewetting of peatland	40
Total	7,065

Afforestation projects

RE's afforestation projects are all practiced within the companies own land, that is Ölfusvatn and Nesjavellir (starting in the year 1990) in Grímsnes- and Grafningshreppur municipality and at Elliðavatn in Reykjavík (starting in the year 1950).

In the beginning, the reclamation areas were unvegetated or sparsely vegetated areas with less than 20% vegetation cover and are mostly binding areas, carbon sinks.

Afforestation takes place on land that is fenced off so that grazing livestock are kept out of the area. These fenced areas demarcate potential planting areas and are roughly 965 ha. There are more areas on RE's land that could be fenced off and afforested in the future. Expanding afforestation sites by 4 hectares annually remains a key goal. Iceland's large areas of sparsely vegetated ecosystems have a relatively high potential to act as carbon sinks. The soil sequestration is added to the above ground sequestration.

Sequestration in 2025 amounts to 5,740 tonnes CO₂-eq and is the same compared to base year 2016. The explanation for this is that within 10-year intervals an assessment is done on the sequestration and is thus the same for one decade. This is therefore expected to change in 2027.

Methodology

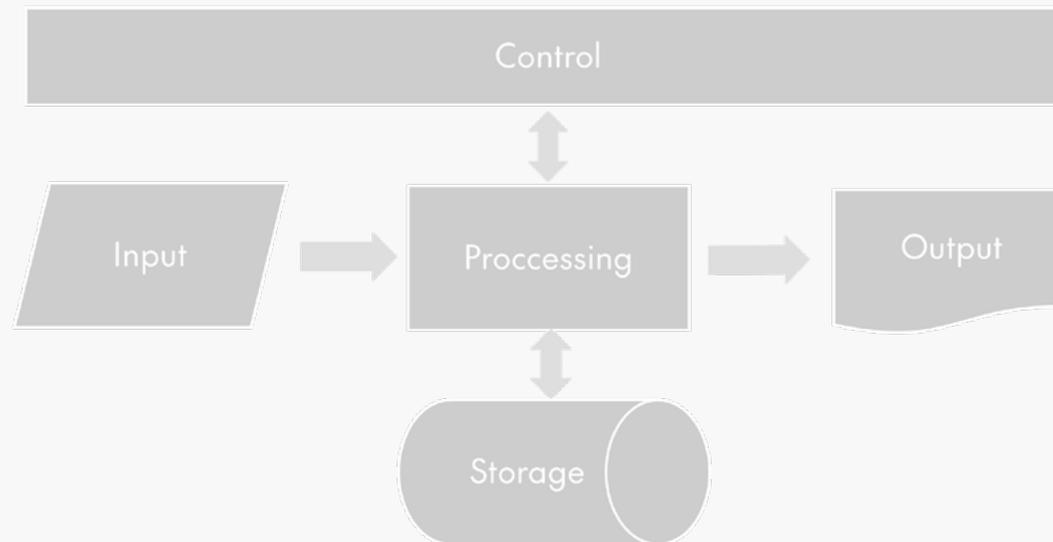
Information used in the climate account is received directly from different business units within Reykjavik Energy (RE) as well as directly from suppliers. Each unit is responsible for their own data. All activity data is reviewed by REs Environmental team before being applied in the climate account.

Sections below outline information management procedures, significance criteria, excluded emissions sources, included greenhouse gases, changes in the methodology for the climate account from previous years, emissions factors applied in the calculations as well as a separate methodology section for biodiversity and land-based carbon insetting projects.

Information management

Reykjavik Energy (RE) has developed a Greenhouse Gas (GHG) information management procedure to ensure the accurate, consistent, and reliable development of its GHG inventory. This process supports effective data verification and continuous improvement.

The procedure integrates five key steps: data input, processing, storage, control, and output. GHG data is collected annually from RE business units or suppliers, after which emissions are calculated through standardized processing methods. Internal control checks, such as internal audits, are conducted during processing as a part of the control procedure to identify inconsistencies, ensure completeness, and eliminate errors. If issues or opportunities for



RE information management for GHG inventory data

improvement in the data or calculation methods are identified, corrections are made, and the process is repeated until the data passes validation. All GHG-related data, processing activities, and supporting documentation are securely stored and archived, ensuring traceability and compliance.

Additionally, periodic external verifications of the GHG inventory, climate targets, and sustainability report help ensure that no GHG sources or sinks are overlooked, while supporting continuous improvements in data quality and methodology.

Significance criteria

All scope 1 and scope 2 emissions are considered significant. To evaluate significant emissions in scope 3 significance categories with significance criteria are used. Emissions sources only needs to fulfil one of these to be considered significant. These criteria are defined in the RE significance criteria table on page 24.

In addition, RE applies an inventory coverage requirement: the climate account is designed to achieve at least 95% coverage of total gross GHG emissions. If the sum of known excluded emission sources is estimated to exceed 5% of total gross emissions, RE will prioritise adding the largest excluded sources until the 95% coverage requirement is met.

Exclusions

RE's climate account includes all scope 1 and 2 emissions, as well as scope 3 emissions that fall within the significance criteria. Scope 1 activities that have negligible emissions, and as a result are not included in the climate account, are listed below. Identified scope 3 activities that are excluded are also listed and explained.

Andakílsárvirkjun hydroelectric power plant (scope 1)

The 8 MWe power plant was commissioned in 1947. Since 2001, the power plant has been owned by RE. Power is generated from water in Andakílsá river, running from the power plant's Andakílsárlón intake reservoir, with the water source being from Lake Skorradalssvatn. The release of GHGs from the intake reservoir and the lake after 80 years of operation is considered insignificant and therefore excluded from RE's climate account.

Low temperature geothermal fields (scope 1)

Veitur Utilities operates low temperature geothermal fields for hot water in the Capital region. Direct emissions from these fields are negligible and therefore not included. Emissions from procurement and fuel use associated with the operation of low temperature fields are included.

Hydrogen usage (scope 1)

Emissions due to hydrogen usage of the vehicle fleet are not included as the hydrogen used is produced at RE's Hellisheiði geothermal power plant and therefore already included in scope

1. No GHGs are released from the use phase of hydrogen.

Server hosting (scope 3)

Ljósleiðarinn is responsible for constructing and managing the fibre-optic cables for homes and businesses, which are used by telecommunications companies. The company does not sell internet subscriptions to consumers. Therefore, emissions from server hosting are excluded.

Wholesale electricity trading (scope 3)

RE buys and sells electricity from 3rd parties. Emissions from the production of this electricity can be included in scope 3, and in the GHG protocol is described as purchased electricity sold to end users. This emission category falls outside the significance criteria regarding magnitude and data availability and is considered none, due to confidentiality issues. These emissions are therefore excluded.

Other emissions (scope 3)

Other scope 3 activities and emissions sources have been identified but are excluded as they fall outside of the significance criteria. This is the use of taxis, electricity uses during remote work and purchases made outside of the procurement system. Emissions from taxis as well as homeworking do not fulfil any of the significance criteria including the criteria of magnitude, sector specific guidance and availability of activity data. Emissions from purchases made outside of the procurement system are estimated at under 5% of the total value of procurement. RE is actively working towards gaining a better understanding and overview of these emissions. No emissions occur during the use phase of products sold by RE such as electricity, heating, or other. Therefore, there is no emissions source category for use of sold products.

RE climate account significance criteria

	Significance category	Significance criteria
1	Magnitude	Significant if emissions are more than 5% of RE's total emissions
2	Outsourcing	Significant if emissions are less than 5% of RE's total emissions but emissions are due to activities that RE outsources. This applies to borehole drilling which are a key activity in the operations of utility systems, geothermal power plants, and carbon sequestration. This also applies to trench digging which is an important part of RE's operations.
3	Employee commuting	Significant if emissions are less than 5% of RE's total emissions but emission is due to employee commute to and from work as well as business-related air travel.
4	RE sector specific guidance	Significant if emissions are less than 5% of RE's total emissions but sector-specific guidance for RE emphasises specific emission categories, for example from the GHG Protocol or SBTi
5	Availability of data	Significant if emissions are less than 5% of RE's total emissions but activity data is readily available.

Wastewater discharge (Biogenic carbon emissions)

Biogenic CO₂ emissions are not included in RE's biogenic carbon emissions category. Biogenic CO₂ emissions have not been quantified in the IPCC standard used to estimate wastewater GHG emissions.

Included greenhouse gases

The table below, for included greenhouse gases (GHG) and sources displays the GHGs released directly in RE's operations, with the main ones being carbon dioxide (CO₂), methane (CH₄), sulphur hexafluoride (SF₆), hydrofluorocarbon (HFC-134a), and nitrous oxide (N₂O). There are other GHGs that may be released indirectly in RE's value chain.

In RE's climate account AR5 and GWP 100 is

Included greenhouse gases and sources

used for converting GHG's into CO₂-eq, following guidelines from the UNFCCC . This is also consistent with the Environmental Agency of Iceland (EAI) as well as the UK Department for Energy Security and Net Zero (DEFRA) that use AR5 for their emissions factors.

Changes in methodology and corrections

Since the publication of the 2024 Reykjavík Energy climate account, there have been no changes to the scope of the climate inventory. The same emission sources are reported as in the 2024 climate account. While the overall calculation methodology remains unchanged, certain emission factors have been updated. The key updates by GHG scope are described below.

RE applies a 5% materiality threshold for recal-

ulation. Where changes and corrections do not result in a material 5% cumulative impact as defined in RE's baseline recalculation policy, prior years are not recalculated.

In With the introduction of smart meters in Veitur's utility system, more accurate data became available regarding the supply and return temperatures in the district heating network. Based on these improved measurements, the energy content of one cubic meter of hot water in Veitur's district heating system has been recalculated to 52 kWh/m³. This represents a revision from the previously assumed value of 58 kWh/m³, and historical energy generation figures have been adjusted accordingly.

Scope 1

Emission factors for fuel combustion have been updated to reflect factors published by the Icelandic Environment and Energy Agency

Greenhouse gas	GWP(100) AR5	Explanation
Carbon dioxide (CO ₂)	1	CO ₂ is released from the operations of RE's geothermal powerplants as well as due to research and maintenance drilling in the power plant fields. Furthermore, CO ₂ is released in the operations of RE's low-temperature fields and due to the operation of fixed and mobile power stations in RE's utility systems. CO ₂ is released from the combustion of fuels in the RE's car fleet and rental cars as well as other places in the supply chain.
Methane (CH ₄)	28	CH ₄ is released from the operations of geothermal powerplants and due to research and maintenance drilling in the powerplant fields. Furthermore, CH ₄ is released due to the decomposition of sewage sludge in lakes, landfilling of waist and fuel combustion.
Nitrous oxide (N ₂ O)	265	N ₂ O is released due to the use of fertilizers, decomposition of wastewater discharge and fuel combustion.
Hydrofluorocarbons (HFCs) HFC-134a	1,300	HFCs can be released in RE's freshwater utility where it is used in air conditioning equipment in pumping stations. This gas is being phased out by R454c.
R454c	146	R454c can be released in RE's freshwater utility where it is used in air conditioning equipment in pumping stations.
Sulfur hexafluoride (SF ₆)	23,500	SF ₆ is used in transformers at the geothermal powerplants, it can also be released during tracer flow tests (TFT) and in RE's electricity utility where it is used as an insulator for transformers.

(IEEA), replacing the previously applied DE-FRA factors. This change was made because the IEEA has introduced updated factors that include Iceland-specific biofuel blend assumptions, thereby improving the accuracy and national relevance of the calculations. Where Iceland-specific factors are not available or sufficiently disaggregated (including for certain WTT components), internationally recognised sources continue to be used as described under “Emission factors” on page 29.

This update aligns with the emission factor selection hierarchy described on page 24. Emissions for prior reporting years have not been recalculated as recalculation thresholds were not met.

Scope 2

There have been no methodological changes in Scope 2 since the 2024 climate account. Market-based emissions for 2024 have been updated to reflect the residual mix emission factor applicable to that year. As the residual mix emission factor for 2025 had not yet been published at the time of reporting, the most recent available factor (2024) has been applied.

Scope 3

Emission factors for waste and wastewater treatment have been reviewed and updated to better reflect the specific disposal methods associated with each waste category. Where relevant, Iceland-specific emission factors published by the IEEA have been applied.

Historical emissions have not been recalculated as the materiality threshold for recalculation

Bæjarhóls 1, Reykjavík Energy headquarters



was not met.

Historical employee commuting emissions (2016-2023) have been corrected to include WTT emissions as has been reported for the 2024 and now the 2025 employee commuting emissions.

Additionally, emissions from investments reported for 2024 were corrected to ensure alignment with the emissions corresponding to that specific reporting year.

Biodiversity and land-based carbon insetting projects

Minor corrections were made due to calculation errors in to previously reported values.

Emissions factors

Emissions factors (EMF) are selected to give the best and most accurate reflection of the greenhouse gas (GHG) emissions from Reykjavík Energy (RE). The picture on page 26 shows the hierarchy of selecting emission factors. Emission factors or similar information, such as Life cycle assessments (LCAs), that is measured within RE's operations or is received directly from suppliers, have priority. This applies to direct emissions from RE's geothermal power plants, which are measured and published by RE staff. It also applies to, for example, specific 3rd party verified Life Cycle Assessment (LCA) provided by suppliers, such as Environmental Product Declarations (EPDs). EPDs and LCAs provided by suppliers are critically reviewed internally before being applied to RE's climate account. This is done to assess the quality of the LCA, looking at the scope, the database used and other background data.

When specific LCA data from suppliers are not available, then EMFs applicable specifically to Iceland, or EMFs provided or recommended by the Environmental Agency of Iceland (EAI) are used. These are EMFs directly provided by the EAI or EMFs from the EAI apply for example to employee commute to and from work.

Emission factors designed specifically for Iceland are not always available, specific enough or sufficiently disaggregated by GHG. In such cases emission factors from the UK Department for Environment, Food and Rural Affairs (DEFRA) are used. Emission factors from DEFRA are chosen due to their availability, allowing emission factors from many emission source streams to be derived using the same methodology. DEFRA's EMFs are also commonly used in GHG reporting in Iceland. DEFRA factors are used in RE's climate account for example for waste streams, where the Icelandic emission factors are limited in the number of waste categories. They are also applied to fuel use where the Icelandic emission factors from the EAI are not disaggregated by GHG, nor do they contain WTT emissions or biofuel blend.

Should it not be possible to use any of the above EMFs from DEFRA or the EAI, then RE uses information from LCAs for example from the Ecoinvent database. Emission factors for scope 1, 2, 3 and biogenic emissions are given in the tables on pages 29-33.



Hierarchy for selection of emission factors

Scope 1 emission factors

Emission factor (EMF ¹), kg GHG										
Emission source	Activity data unit	CO ₂	CH ₄	N ₂ O	HFC	R454c	SF ₆	CO ₂ -eq.	Uncertainty	Data source
Geothermal power plants		X	X					N/A	12.5%	Direct measurement at emission source
District heating & Steam Utility		X	X					N/A	100%	Direct measurement at emission source
Wastewater discharge - BOD ²	kg BOD		0.114					3.2	160%	EMF: IPCC table 6.8
Wastewater discharge - N ³	kg N			0.008				2.08	64%	EMF: IPCC table 6.8A
Fuel use TTW ⁴ Petrol	Litres	2.00	0.00081	0.00026				2.08	10%	EMF: IEEA
Fuel use TTW ⁴ Diesel	Litres	2.39	0.00014	0.00014				2.48	10%	EMF: IEEA
Fuel use TTW HVO ⁵	Litres	0	0.00005	0.00001				0.0051	10%	EMF: IEEA
Fuel use TTW Methane (CH ₄ and N ₂ O)	Nm ³		0.000036	0.000004				0.002	10%	EMF: IEEA
Land use change ⁶ - Biomass ⁷	ha	0.0326						0.0326	150%	EMF: EAI National inventory Report table 6.34
Land use change ⁶ - Mineral soil ⁸	ha	0.00245						0.00245	150%	EMF: EAI National inventory Report table 6.34
SF ₆	kg SF ₆						1	23,500	10%	EMF: IPCC table 8.A.1
HFC-134 _a	kg HFC-134 _a				1			1,300	10%	EMF: IPCC table 8.A.1
R454c	kg R454c					1		146	10%	EMF: Gas supplier
Fertilizer for land reclamation and afforestation	kg N			0.016				4.16	10%	EMF: IEEA

¹The EMF can be variable between years. The table shows EMFs for 2025, EMFs for previous years may differ. The most recent EMF from the "Data source" column is used (note AR5 is used although AR6 is available).

² Only applies to Hvanneyri and Reykhotl where wastewater is discharged to lakes. For wastewater discharged to marine environments CH₄ does not form due to high oxygen saturation, high ocean currents, and little to no sediment formation from discharge: [G.A. Auðunsson](#). Uncertainty of CH₄ emissions from wastewater discharge is based on uncertainty ranges provided in table 6.7 of [Volume 5, chapter 6, 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories](#). This is in line with the [EAI National inventory Report](#). Measurement uncertainty and uncertainty of the activity data estimated as 15% and 12% respectively.

³ Uncertainty of N₂O emissions from wastewater discharge is based on uncertainty ranges provided in table 6.13 of [Volume 5, chapter 6, 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories](#). This is in line with the [EAI National inventory Report](#). Measurement uncertainty and uncertainty of the activity data estimated as 20% and 5% respectively.

⁴ Tank-to-wheel (TTW), Average biofuel blend emission factor used for petrol and diesel.

⁵ Density of HVO is assumed to be 0,78

⁶ Under the IPCC tier 1 methodology emissions from deadwood, litter and harvested wood products are assumed 0 when the land use change emissions do not occur on forest land. See page 8, [Volume 4, chapter 2, 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories](#).

⁷ Emission factor is for yearly carbon stock losses. 70% of original vegetation cover is assumed to be removed, See page 281 in [EAI National inventory Report](#). A 1 year conversion period is applied for biomass losses, see tier 1 method for biomass in [Volume 4, chapter 8, 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories](#). Uncertainty from page 282 in [EAI National inventory Report](#).

⁸ Emission factor is for yearly carbon stock losses. Weighted C-stock of treeless land is 66.9 t ha⁻¹. A Soil stock change factor of 0.8 and a 20 year conversion period are applied, in line with the tier 1 method in the [Volume 4, chapter 8 2006 IPCC Guidelines for National Greenhouse Gas Inventories](#). Annual loss in the carbon stock is then 0.67 t C ha⁻¹. Mineral soil is assumed to have a default depth of 30 cm. See page 281 in [National inventory Report](#). Uncertainty from page 282 in [EAI National inventory Report](#).

Scope 2 emission factors

Emission factor (EMF ¹), kg GHG										
Emission source	Activity data unit	CO ₂	CH ₄	N ₂ O	HFC	R454c	SF ₆	CO ₂ -eq.	Uncertainty	Data source
Electricity - Location based Reykjavik Energy ²	kWh								1%	EMF from Reykjavik Energy
Electricity - Location based Iceland ³	kWh							0.00641	1%	EMF: IEEA
Heating - Location based Reykjavik Energy ⁴	m ³								1%	EMF from Reykjavik Energy
Electricity - Market based (residual mix) ⁵	kWh							0.56392	1%	EMF: Orkustofnun
Heating - Market based Reykjavik Energy ⁶	m ³								1%	EMF from Reykjavik Energy

¹The EMF can be variable between years. Table shows EMF for 2025, EMF for previous years may differ. The most recent EMF, from the "Data source" column is used.

²This emission factor is used for electricity purchased from ON Power and is produced within the organizational boundary. These emissions are, however, not reported in scope 2 as they have already been accounted for in scope 1.

³This emission factor is used for electricity purchased from parites outside the organizational boundary. The most recent grid factor from the [IEEA](#) is used.

⁴This emission factor is used for hot water purchased from Veitur Utilites and is produced within the orgalizational boundary. These emissions are, however, not reported in scope 2 as they have already been accounted for in scope 1.

⁵Orkustofnun (now IEEA) publishes data with one year lag, EMF for reporting year 2025 is physically relevant to 2024 and so on.

⁶Same as for location based as no guarantees of origin are sold for the heating market in Iceland.

Scope 3 emission factors

Emission factor (EMF ¹), kg GHG										
Emission source	Activity data unit	CO ₂	CH ₄	N ₂ O	HFC	R454c	SF ₆	CO ₂ -eq.	Uncertainty	Data source
Purchased capital goods ²	ISK/Piece/m/kg							Variable	60%	EMF: DEFRA Carbon saver
Purchased goods ²	ISK/Piece/m/kg							Variable	60%	EMF: DEFRA Carbon saver
Trench digging by contractors - diesel (WTW) ³	m ³							18.01	50%	EMF: IEEA , DEFRA and LOKI
Trench digging by contractors - HVO (WTW) ⁴	m ³							3.38	50%	EMF: IEEA , DEFRA and LOKI
Drilling by contractors - diesel (TTW)	Litres	2.39	0.00014	0.00014				2.48	10%	EMF: IEEA
Drilling by contractors - diesel (WTT)	Litres							0.61	10%	EMF: DEFRA
Transportation of goods (WTT + TTW) ⁵	ISK							Variable	70%	EMF: DEFRA Carbon saver
Upstream emissions of purchased electricity ⁶	kWh							0.00065	1%	EMF: Supplier LCAs
Transmission losses ⁷	kWh							0.00641	1%	EMF: IEEA
Fuel use WTT Petrol ⁸	Litres							0.58	10%	EMF: DEFRA
Fuel use WTT Diesel ⁸	Litres							0.61	10%	EMF: DEFRA
Fuel use WTT Methane (CH ₄ and N ₂ O) ⁸	Nm ³							0	10%	EMF: IEEA
Fuel use WTT HVO ⁸	Litres							0.56	10%	EMF: DEFRA
Transmission grid SF ₆	kg							23,500	5%	EMF: IPCC table 8.A.1
Sewerage waste - Fat and Screening waste (Combustion)	Tonne							526.0	35%	EMF: IEEA
Sewerage waste - Sludge from biological treatment (Landfill)	Tonne							700.21	35%	EMF: IEEA
Sewerage waste - Sand (Landfill)	Tonne							0	35%	EMF: IEEA
Waste - General (Combustion)	Tonne							4.7	35%	EMF: DEFRA
Waste - Bulk (Landfill)	Tonne							1.3	35%	EMF: DEFRA
Waste - Asbestos (Landfill)	Tonne							5.9	35%	EMF: DEFRA
Waste - Metal (Closed loop)	Tonne							1	35%	EMF: DEFRA
Waste - Timber, unpainted (Open Loop)	Tonne							4.7	35%	EMF: DEFRA
Waste - Timber, painted (Combustion)	Tonne							4.7	35%	EMF: DEFRA
Waste - Garden waste (Composting)	Tonne							207	35%	EMF: IEEA
Waste - Glass and minerals (Landfill)	Tonne							9	35%	EMF: DEFRA
Waste - Tyres (Closed loop)	Tonne							4.7	35%	EMF: DEFRA
Waste - Plastic (Combustion/Closed loop)	Tonne							4.7	35%	EMF: DEFRA
Waste - Currugated cardboard (Closed loop)	Tonne							4.7	35%	EMF: DEFRA

Scope 3 emission factors - Continued

Emission factor (EMF ¹), kg GHG										
Emission source	Activity data unit	CO ₂	CH ₄	N ₂ O	HFC	R454c	SF ₆	CO ₂ -eq.	Uncertainty	Data source
Waste - Mixed cardboard (Closed loop)	Tonne							4.7	35%	EMF: DEFRA
Waste - Office paper (Closed loop)	Tonne							4.7	35%	EMF: DEFRA
Waste - Newspapers and magazines (Closed loop)	Tonne							4.7	35%	EMF: DEFRA
Waste - Organic (Composting)	Tonne							207	35%	EMF: IEEA
Hazardous Waste - Unknown material (Landfill)	Tonne							497.04	35%	EMF: DEFRA
Hazardous Waste - Light bulbs (Open Loop)	Tonne							4.7	35%	EMF: DEFRA
Hazardous Waste - Batteries (Open loop)	Tonne							4.7	35%	EMF: DEFRA
Hazardous Waste - Accumulators (Open Loop)	Tonne							4.7	35%	EMF: DEFRA
Hazardous Waste - Electrical items (Open loop)	Tonne							4.7	35%	EMF: DEFRA
Hazardous Waste - Paint and printing waste (Landfill)	Tonne							520.5	35%	EMF: DEFRA
Hazardous Waste - Oil and oil contaminated waste (Landfill)	Tonne							520.5	35%	EMF: DEFRA
Hazardous Waste - Plaster (Landfill)	Tonne							72	35%	EMF: DEFRA
Hazardous Waste - Solvents (Combustion)	Tonne							4.7	35%	EMF: DEFRA
Hazardous Waste - Organic hazardous material (Combustion)	Tonne							4.7	35%	EMF: DEFRA
Hazardous Waste - Inorganic hazardous material (Combustion)	Tonne							526	35%	EMF: IEEA
Employee commute - Petrol/diesel ⁹	km travelled							0.169	5%	EMF: IEEA
Employee commute - EV ¹⁰	km travelled							0	5%	EMF: IEEA
Employee commute - Plug in hybrid	km travelled							0	5%	EMF: IEEA
Employee commute - Full hybrid	km travelled							0.133	5%	EMF: IEEA
Employee commute - Methane	km travelled							0.001	5%	EMF: IEEA
Employee commute - Motorcycle	km travelled							0.067	5%	EMF: IEEA
Employee commute - Carpool ¹¹	km travelled							0.085	5%	EMF: IEEA
Employee commute - Walking/bike/scooter	km travelled							0	5%	EMF: IEEA
Employee commute - Bus/Strætó ¹²	km travelled							0.052	5%	EMF: IEEA
Employee commute - WTT ¹³	km travelled							Variable	5%	EMF: DEFRA
Business travel - Air travel (TTW) ¹⁴	Passengers/trip							Variable	45%	EMF: ICAO
Business travel - Air travel (WTT) ¹⁵	Passengers/trip							Variable	45%	EMF: DEFRA

Scope 3 emission factors - Continued

Emission factor (EMF ¹), kg GHG										
Emission source	Activity data unit	CO ₂	CH ₄	N ₂ O	HFC	R454c	SF ₆	CO ₂ -eq.	Uncertainty	Data source
Business travel – Hotel stays ¹⁶	Nights							38.8	5%	EMF: DEFRA
Downstream event related travel (TTW)	Passengers/trip							Variable	45%	EMF: ICAO
Downstream event related travel (WTT)	Passengers/trip							Variable	45%	EMF: DEFRA
Investments	person/day							Variable	45%	EMF: Investments Scope 1 emissions

¹The EMF can be variable between years. Table shows EMF for 2025, EMF for previous years may differ. The most recent EMF, from the “Data source” column is used.

²Includes purchased made in the procurement system, including transportation paid for indirectly as well as any major purchased made outside the procurement system. All emissions paid for in the reporting year are included as emissions in the same year.

³Fuel use of 5.93 l diesel per m³ is assumed. This is based on fuel use factors in LOKI a Icelandic carbon calculator for infrastructure. The calculator is a collaborative project between Efla and Vegagerðin, the calculator has not been officially released to the public yet. The IEEA emission factor for average biofuel blend of diesel is used to calculate emissions TTW from fuel use. For WTT the emission factor from DEFRA for average biofuel blend of diesel used.

⁴Same fuel use of HVO as for diesel with 5.93 l m³ assumed. IEEA emission factor for TTW HVO (Lifdiesel) is used, DEFRA emission factor for WTT HVO is used.

⁵Only freight services directly paid for by RE, indirect freight services included in purchased goods and capital goods. Average EMF of land, sea and air transportation used from carbon saver. Note that this emission factor includes both TTW and WTT.

⁶Only purchased and used electricity from suppliers other than ON Power, upstream emissions from heating and electricity from ON power are already included in scope 1.

⁷Same approach as scope 2: The EMF from the IEEA is applied to electricity purchased from 3rd parties, electricity purchased from ON Power is already included in scope 1. Landsnet losses around annually 2%, see: landsnet.is/fjarmal/lykiltolur/

⁸Well-to-tank (WTT), upstream emissions from fuel use in scope 1, the EMF is also applied to calculate upstream fuel use from contractors in scope 3, with the same fuel usage per m³ as TTW.

⁹EMF is adjusted from IEEA. Diesel and petrol average.

¹⁰In-house charging assumed to cover transportation to and from work, emissions from electricity therefore assumed to be included in scope 1/2.

¹¹EMF is adjusted from IEEA. Average of 2 people assumed in diesel/petrol car.

¹²EMF is adjusted from IEEA. Diesel bus with average of 15 passengers assumed.

¹³Well-to-tank (WTT), upstream emissions from employee commuting is assumed as 22% of employee commuting emissions, this is the DEFRA ratio for petrol WTT and TTW.

¹⁴EMF is not used as different emissions are different between destinations. Radiative Forcing Factor of 3 is applied to EMFs from the ICAO. See [Radiative Forcing Associated with Emissions from Air Travel](#) and [Lee, D. S. \(2020\). The Contribution of Global Aviation to Anthropogenic Climate Forcing for 2000 to 2018. Atmospheric Environment, 244, 117834. https://doi.org/10.1016/j.atmosenv.2020.117834](#). Same methodology is applied to Downstream event related travel TTW.

¹⁵Well-to-tank (WTT), upstream emissions from air travel is assumed as 12% of airtravel TTW (without the radiative forcing factor). This is based on the TTW and WTT airtravel emission factors from DEFRA. Same methodology is applied to Downstream event related travel WTT

¹⁶Average of all DEFRA hotel stay EMFs

Methodology for biodiversity and land based carbon insetting projects

This section discusses the methodology for estimating emissions and sequestration related to land reclamation, afforestation, and rewetting of peatlands.

Significance criteria

All scope 1 emissions in the carbon insetting projects, such as those due to fuel use and fertilizer use, are counted for and reported in RE's climate account. Emissions due to fuel use (TTW) and fertilizer use are specified in RE's climate account under scope 1, for both afforestation and land reclamation, but there is no fertilizer use in rewetting of peatland. No electricity or heating (scope 2) is purchased for these projects. Indirect emissions in scope 3 must meet significance criteria to be included in the climate account, sources like fuel use (WTT) and commuting of employees to the carbon insetting sites. Actions such as fence maintenance, use of tools, safety clothing and production of grass seeds are not significant and therefore excluded. The significance criteria are the same as for the GHG emissions and are defined in the RE climate account significance criteria table on page 25.

Included greenhouse gases for biodiversity land based carbon insetting projects

Greenhouse gas	GWP(100) AR5	Explanation
Carbon dioxide (CO ₂)	1	CO ₂ is released from fuel use (TTW) and (WTT).
Methane (CH ₄)	28	CH ₄ is released from decay of biological material.
Nitrous oxide (N ₂ O)	265	N ₂ O is released due to fertilizer use.

Included greenhouse gases for biodiversity and land-based carbon Insetting projects

The table for included GHGs shows the greenhouse gas (GHG) released directly in RE's carbon insetting projects, i.e. carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O).

Exclusions for biodiversity and land-based carbon insetting projects

RE's climate account includes all scope 1 and 2 emissions, as well as scope 3 emissions that fall within the significance criteria. Scope 1 activities that have negligible emissions, and as a result are not included in the climate account are listed below. Identified scope 3 activities that are excluded are also listed and explained.

Land use activities (scope 1). Where land that is distributed in RE's operations is restored and reclaimed. Nature-based restoration activities of disrupted land are considered to compensate for the emissions caused by the disruption, making the emissions arising from the disruption as negligible. The sequestration from the land reclamation of disrupted areas is there-

fore not included in the carbon sequestration calculations.

Categories that do not meet significance criteria (scope 3), are fuel use of contractors, fencing and fencing maintenance, purchases such as tools, safety clothing and production of grass seeds.

Sparsely vegetated or bare land. Carbon sequestration or emission from land owned by RE where there has been no land use, land reclamation, or afforestation are not accounted for, as emissions from sparsely vegetated or bare land are considered negligible according to the Icelandic National Inventory Report 2023, section 6.10.1, (CRF 4F1).

Changes in methodology and corrections of biodiversity and land-based carbon insetting projects

Since 2023, focus has been put on improving the data management and data quality of the GHG inventory data include the data related to the biodiversity and land-based carbon insetting projects. For the carbon insetting projects this improvement in data management includes a better overview of the projects accessible to employees in the company GIS system, an overview of the land reclamation

projects also available publicly here: [LUKSjá](#). No changes have been made to the methodology in terms of estimating the emissions and sequestration of the biodiversity and land-based carbon in setting projects.

Sequestration and emission factors

Reykjavík Energy (RE) is involved in various projects that contribute to the land-based carbon sequestration and emissions of carbon dioxide in vegetation and soil, through afforestation, land reclamation, and peatland restoration activities. Sequestration factors and emission factors (EMF) are selected to give the best and most accurate reflection of RE's GHG sequestration and emissions. Sequestration factors and EMF are selected to give the best and most accurate reflection of RE's GHG sequestration and emissions, see table on page 34 to 35. Please note that EMFs due to fuel and fertilizer use in nature-based carbon insetting projects is discussed in the section on Emission Factors above, pages 29-33.

Sequestration factors or similar information that is received directly from RE have priority. This applies to sequestration in afforestation which are RE-specific, that is which are measured on RE's land and published by the Agricultural University of Iceland,. When specific RE sequestration factors are not available, then sequestration factors are used which are applicable to Icelandic conditions and published by the Environment Agency of Iceland and a new agency, Land og skógur, e.g. merging of the Soil Conservation Service of Iceland , and the Icelandic Forest Service. This applies for example to land reclamation sites and rewetted peatland.

If no Iceland-specific sequestration factors are available, general IPCC factors, which are also used in Iceland's National Inventory Report, are used. See list of sequestration factors used on pages 36-37.



Sequestration factors

An overview of the sites and projects where afforestation, land reclamation and rewetting of peatland have taken place 2016-2025

Sequestration source (site)	Project	Sequestration factor (tonn CO ₂ -eq/ha)	Emission factor - decay- ing debris (tonn CO ₂ -eq/ha)	Uncertainty (95% confidence inter- val)	Sequestration factor source
Afforestation - sequestration above ground					
Heiðmörk	Young forest <10 years	0.67	0	23%	Sigurdson et al, 2008
Heiðmörk	Conifer forest <5m	7.8	0.3	23%	Vidarson, G.J, 2023, table 11
Heiðmörk	Conifer forest >5m	15.2	0.3	23%	Vidarson, G.J, 2023, table 11
Heiðmörk	Mixed forest	3.2	0.3	23%	Vidarson, G.J, 2023, table 11
Heiðmörk	Natural birch forest	1.2	0	23%	Vidarson, G.J, 2023, table 11
Ölfusvatn	Conifer forest	8.0	0.3	50%	Vidarson, G.J, 2023, table 12
Ölfusvatn	Planted birch forest	0.4	0	50%	Vidarson, G.J, 2023, table 12
Nesjavellir	Planted birch forest	0.6	0	50%	Vidarson, G.J, 2023, table 13
Nesjavellir	Natural birch forest	0.7	0	50%	Vidarson, G.J, 2023, table 13
Land reclamation - revegetation					
Hellisheidi Kolviðarhóll ¹	Grassland/Mossy Heathland/Heathland	2.1	0	20%	EAI - 2024 National Inventory report, table 6.22
Hellisheidi Húsmúli ¹	Grassland/Mossy Heathland/Heathland	2.1	0	20%	EAI - 2024 National Inventory report, table 6.22
Hellisheidi Svínahraun ¹	Grassland/Mossy Heathland/Heathland	2.1	0	20%	EAI - 2024 National Inventory report, table 6.22
Hellisheidi Gráuhnjúkar ¹	Grassland/Mossy Heathland/Heathland	2.1	0	20%	EAI - 2024 National Inventory report, table 6.22
Hellisheidi Hverahlíd ¹	Grassland/Mossy Heathland/Heathland	2.1	0	20%	EAI - 2024 National Inventory report, table 6.22
Hellisheidi Hjallatorfa ¹	Grassland/Mossy Heathland/Heathland	2.1	0	20%	EAI - 2024 National Inventory report, table 6.22
Nesjavellir dalir ²	Grassland/Mossy Heathland/Heathland	2.1	0	20%	EAI - 2024 National Inventory report, table 6.22
Nesjavellir ¹	Grassland/Mossy Heathland/Heathland	2.1	0	20%	EAI - 2024 National Inventory report, table 6.22
Andakíll ¹	Grassland/Mossy Heathland/Heathland	2.1	0	20%	EAI - 2024 National Inventory report, table 6.22
Heiðmörk ¹	Grassland/Mossy Heathland/Heathland	2.1	0	20%	EAI - 2024 National Inventory report, table 6.22

Sequestration factors - Continued

An overview of the sites and projects where afforestation, land reclamation and rewetting of peatland have taken place 2016-2025

Sequestration source (site)	Project	Sequestration factor unit (tonn CO ₂ -eq/ha)		Uncertainty (95% confidence interval)	Sequestration factor source
Soil sequestration in afforestation sites					
Heiðmörk	Afforestation	1.50	0	85%	Owona, J. 2019 , table 20
Ölfusvatn	Afforestation	1.50	0	85%	Owona, J. 2019 , table 20
Nesjavellir	Afforestation	1.50	0	85%	Owona, J. 2019 , table 20
Rewetted peatland					
Hjallatorfa	Peatland	13.5	0	83%	Losun gróðurhúsalofttegunda úr votlendi; VSÓ, 2020 , Table 3.1
¹ Mineral soil (0,51 t C/ha/ár x 3.67 CO ₂ /C) + Biomass (0,06 t C/ha/ár x 3.67 CO ₂ /C) ² Median value is used (2.3-29.19)					